

Modernity, Latour and ANT

by Susana Carmona

This presentation is a quick summary of the key characteristics and definitions of the concepts use in Science and Technology Studies texts. I paraphrased some materials from internet and books. Please don't cite this presentation as mine but refer to the original sources. All the webpages used are reference in the slides notes.

May 2020



What is modernity?

Modernity a key concept widely use in social sciences and critically analysed by many theoretical approaches.

For Science and Technology Studies it is a very important concept because the critique to what Latour calls “the modern constitution” is at the base of Actor-Network Theory Method.

We are part of the so called “modern society”... So the basic principles of modernity apply to our way of thinking, even if we don’t realize of it. What does that imply? ...how would an anthropology of the modern society would look like? ...

A first step to understand the term is to look at the common use of the word “**Modern**”:

A quick dictionary search defines modern as something “*relating to the present or recent times as opposed to the remote past*”, or as “*a person who advocates or practices a departure from traditional styles or values*”. It is also described as synonym of words such as *present day, contemporary, current, new*.

As we can see, the word modern implies a distinction between something “new” and something “old or antique”. In this comparison, most of the times there is implicit **hierarchy** where what is modern is supposed to be better.

It also implies a **teleological** temporality meaning that what is non-modern is behind in time or history. In other words, the concept of modernity implies a linear conception of time, where what is modern has overcome or left behind a previous step.

Which other words come to your mind when thinking of the word Modern? People usually mentions improvement, development, novelty, innovation, connection... It is opposed to things described as traditional, ancient, or outdated.

The last ones are adject that we usually apply to “pre-modern” societies, for example feudal societies, but the term pre-modern is also often used to describe present day non-modern groups (e.g. indigenous groups)

But these are not societies “from the past”. They are contemporary to modern societies!



Modernity as period in history....

In the discipline of History, the word “modernity” defines a period of western society that started around the XVII century. Historians also usually point the end of the modern period in the mid XX century after WWII. From there on they usually speak of “contemporary” history.

The modern period started with the shift from the “superstitious” and religious believes of the middle ages to the development of rational thinking and the institutionalization of sciences in the enlightenment.

If we think of modernity as characterized by the events of these centuries, we can associate the concept with:

- Western Europe (where the enlightenment occurred) and North America where western culture successfully expanded first (these became the MODERN societies par excellence).
- **Industrialization** and the increasing **urbanization**.
- The rise of **capitalism** and private property (and therefore **individualism** as oppose to collectivism).
- The French revolution and the further development of **liberal democratic values** such as freedom, equality, the welfare State, **secularization** (no church in the government), the separation of powers.
- The expansion of western society and values.
- **Colonialism**

Many postcolonial authors speak of colonialism as the dark side of modernity. This means to express that the positive developments of modernity such as freedom and technology, would not have been possible without the exploitation of the colonies.



Immanuel Kant is an emblematic philosopher of modernity

What is The “Modern Constitution” every body talks about in STS?

Latour uses the word “Constitution” to use the metaphor of the political Constitution as the basic rules of a State. Then, the Modern Constitution makes reference to that which is at the base of modern societies. The most basic principles of Modernity.

Going further to analyse the basic traits of modern thinking, we can say that the basic principle of Modernity is that we consider Nature (the non-human world and the natural laws) and Culture (power, social life, rules, discourses, ideas) as separated domains. Latour will also say that metaphysics (God and spirituality) is also a separated domain. In other words, we consider them different categories that help us classify things.

In Latour terms, we perform a **PURIFICATION** of these categories.

This Purification is a basic part of what Latour calls “**THE MODERN CONSTITUTION**”.

But the modern constitution also requires what Latour calls a constant work of **TRANSLATION (he also calls it MEDIATION)**. This mediation is what allows us to move things from one category to the other depending on necessity. This is what has allow us for example, to transform nature through technology or to discuss the political interest of a scientific discovery, or to believe in god but at the same time believe in evolution.

It is this double work of purification and translation what has allowed science to developed (e.g. by going to the lab and reproducing natural conditions) or technology to become so effective and to proliferate...

Consequently, for Latour the Modern Constitution is what has ultimately enable western societies to grow and expand its values and worldview.

Translation and purification as the basis of the modern constitution

“The hypothesis of this essay is that the word 'modern' designates two sets of entirely different practices which must remain distinct if they are to remain effective, but have recently begun to be confused. The first set of practices, by 'translation', creates mixtures between entirely new types of beings, hybrids of nature and culture. The second, by 'purification', creates two entirely distinct ontological zones: that of human beings on the one hand; that of nonhumans on the other”. (Latour – We have never been modern p. 10)

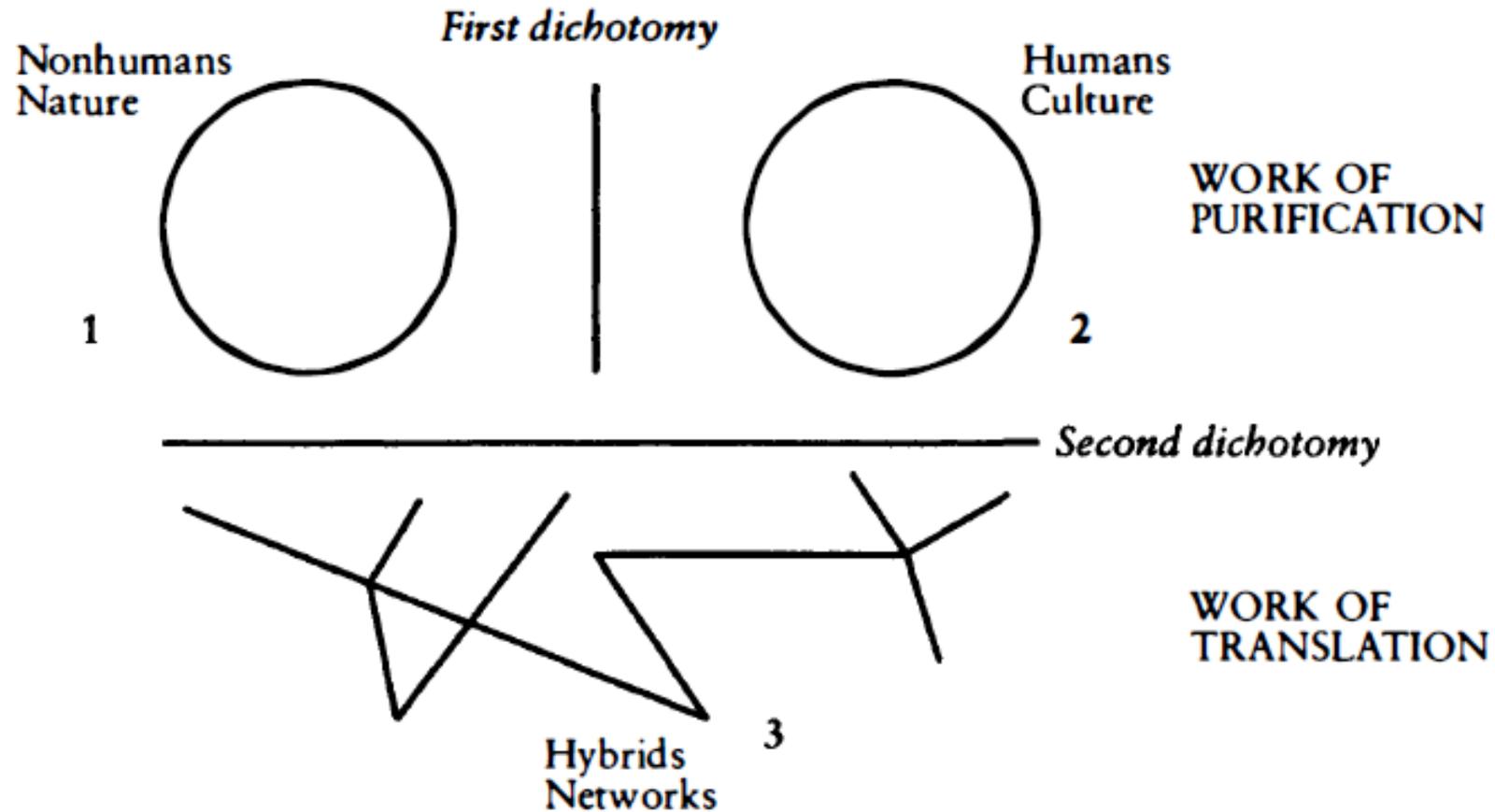


Figure 1.1 Purification and translation

This is a scheme Latour presents in his book with the two sets of practices... As you see here, and in the previous quote, Latour sees that in modern societies there is a proliferation of hybrids of nature and culture. The task of explaining this hybrids is what has become increasingly hard for social sciences that also perform the task of purification.

So... Latour points to the fact that the “Modern Constitution” –the separation (PURIFICATION) and simultaneous mixture (TRANSLATION) of Nature and Culture-- made the moderns very successful in expanding their values, developing science and producing technology, but at the same time this separation implies certain paradoxes, or things that are contradictory but that co-exist in modern societies:

- We believe in science as capable of explaining that we uncontrollable “world out there” that obeys only to its own natural laws, but at the same time we believe we can control Nature through technology.
- We believe society is only a human trait, therefore human-made, but we also think there are social norms or powers beyond our immediate control (for example, we don't marry a cousin, we cannot just steal without consequences, we cannot avoid conflicts, etc.). We usually explain these things as “social forces” (how can “the social realm” be an external force and human-made at the same time?)
- We believe in God or have a spirituality, but we don't think priests should run the country or that God created the world in seven days. How can we believe in god and in spiritual forces beyond our reach, but at the same time believe in evolution and science?



With the proliferation of hybrids the work of purification and the work of mediation is harder and harder... the above contradictions are more and more evident. We ran out of tools to describe and explain hybrids. Science and politics are mixed all the time now.



BIO-WEAPONS



The practices of Purification and Translation have made possible the proliferation of Hybrid entities: things that do not belong just to nature nor just to culture...once they are out there, it is difficult to "purify" as belonging to one category or the other...How can we explain hybrids?

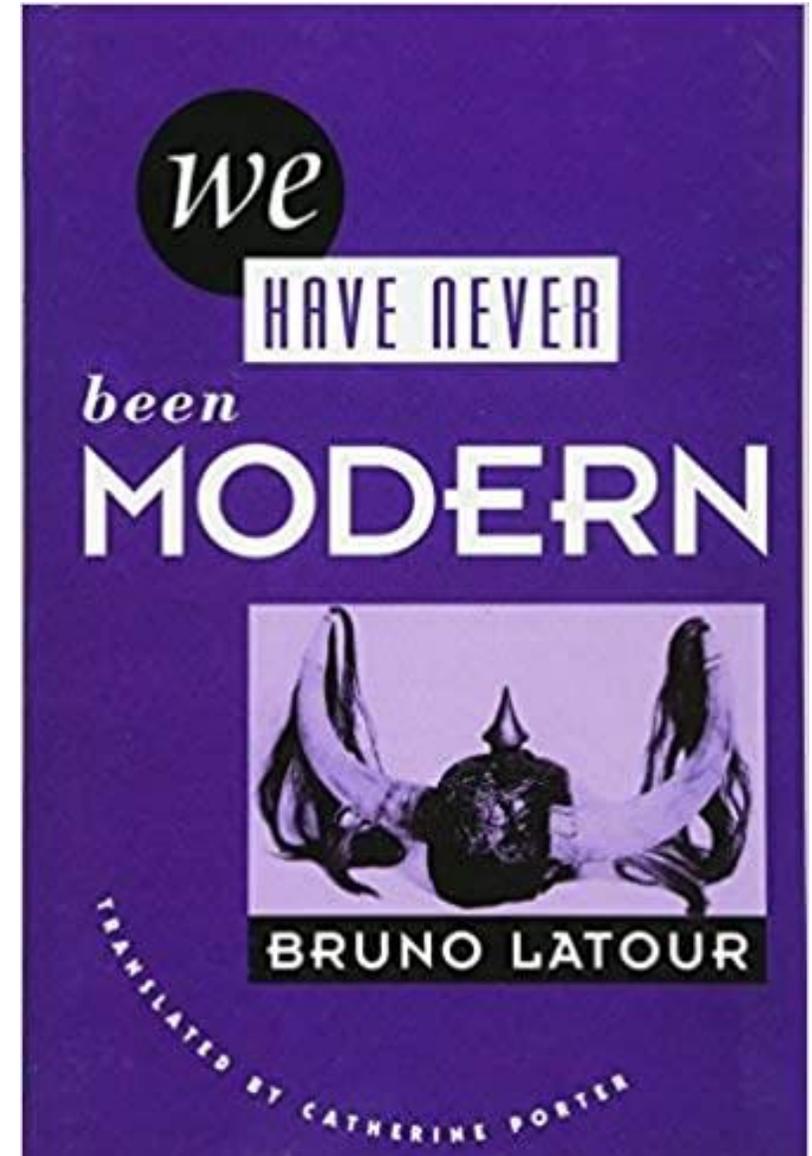


So maybe... Nature and Culture have never been really separated.
Latour will say.... **What if we have never been modern?**

This is not to imply that modernity does not exist, or that we can no longer use that category to explain certain attitudes and ways of thinking.

What he means is that we have never really kept translation and separation truly differentiated... hybridation has always been in place.

Let's see his argument in his own words, at the end of the first chapter of We have Never been Modern....



So long as we consider these two practices of translation and purification separately, we are truly modern – that is, we willingly subscribe to the critical project, even though that project is developed only through the proliferation of hybrids down below. As soon as we direct our attention simultaneously to the work of purification and the work of hybridization, we immediately stop being wholly modern, and our future begins to change. At the same time we stop having been modern, because we become retrospectively aware that the two sets of practices have always already been at work in the historical period that is ending. Our past begins to change. Finally, if we have never been modern – at least in the way criticism tells the story – the tortuous relations that we have maintained with the other nature-cultures would also be transformed. Relativism, domination, imperialism, false consciousness, syncretism – all the problems that anthropologists summarize under the loose

expression of ‘Great Divide’ – would be explained differently, thereby modifying comparative anthropology.

What link is there between the work of translation or mediation and that of purification? This is the question on which I should like to shed light. My hypothesis – which remains too crude – is that the second has made the first possible: the more we forbid ourselves to conceive of hybrids, the more possible their interbreeding becomes – such is the paradox of the moderns, which the exceptional situation in which we find ourselves today allows us finally to grasp. The second question has to do with premoderns, with the other types of culture. My hypothesis – once again too simple – is that by devoting themselves to conceiving of hybrids, the other cultures have excluded their proliferation. It is this disparity that would explain the Great Divide between Them – all the other cultures – and Us – the westerners – and would make it possible finally to solve the insoluble problem of relativism. The third question has to do with the current crisis: if modernity were so effective in its dual task of separation and proliferation, why would it weaken itself today by preventing us from being truly modern? Hence the final question, which is also the most difficult one: if we have stopped being modern, if we can no longer separate the work of proliferation from the work of purification, what are we going to become? Can we aspire to Enlightenment without modernity? My hypothesis – which, like the previous ones, is too coarse – is that we are going to have to slow down, reorient and regulate the proliferation of monsters by representing their existence officially. Will a different democracy become necessary? A democracy extended to things? To answer these questions, I shall have to sort out the premoderns, the moderns, and even the postmoderns in order to distinguish between their durable characteristics and their lethal ones.

1.5 What Does it Mean To Be a Modern?

When defining what it means to be modern, Bruno Latour calls our attention to the fact the Modernity has disenchanted many: Democracy and capitalism beat “socialism”, but it put many more into poverty. Science is widespread, and yet we realize that we are destroying the planet. There is a crisis of modernity, expressed in several philosophical critiques that reject the idea (like postmodernism for example).

This summed up to the proliferation of hybrids calls for a new approach (that of the anthropology of western societies) to understand what is happening.

P 10

Modernity comes in as many versions as there are thinkers or journalists, yet all its definitions point, in one way or another, to the passage of time. The adjective ‘modern’ designates a new regime, an acceleration, a rupture, a revolution in time. When the word ‘modern’, ‘modernization’, or ‘modernity’ appears, we are defining, by contrast, an archaic and stable past. Furthermore, the word is always being thrown into the middle of a fight, in a quarrel where there are winners and losers, Ancients and Moderns. ‘Modern’ is thus doubly asymmetrical: it designates a break in the regular passage of time, and it designates a combat in which there are victors and vanquished. If so many of our contemporaries are reluctant to use this adjective today, if we qualify it with prepositions, it is because we feel less confident in our ability to maintain that double asymmetry: we can no longer point to time’s irreversible arrow, nor can we award a prize to the winners. In the countless quarrels between Ancients and Moderns, the former come out winners as often as the latter now, and nothing allows us to say whether revolutions finish off the old regimes or bring them to fruition. Hence the scepticism that is oddly called ‘post’modern even though it does not know whether or not it is capable of taking over from the Moderns.

Basics premise by Latour:

- We need to reconnect the “social” and the “natural” world so we can account for current affairs (characterized by the abundance of hybrid entities).
- How can we reconnect them? Well... the point is that they have never been truly separated. In western societies, as in non-modern societies, things always combine and recombine.
- What is that is combined? People (humans), things (non human-natural entities) and concepts (discourses, representations and ideas about things and people).
- Science and Technology Studies found the need to do it first because all the objects of Science and Technology are hybrids. But as the proliferation of hybrids is present in so many other areas, Latour’s approach have become very popular.

Latour speaks in the beginning of the book about the critiques to modernity and how all of them have important points but they act as separate and cannot catch the complexity of the hybrid phenomena: [naturalization](#) (those who will say that all in the universe is the result of natural laws - check [Edward Osborne Wilson](#)), [socialization](#) (those who will say that we are pretty much the result of living in society and adopting social norms and behaviors, and we are we are subject to power relations – check [Pierre Bourdieu](#)) and [deconstruction](#) (those that will argue that discourses and concepts shape our understanding and representation of the world and there is no “reality out there, but it is always mediated –check [Jacques Derrida](#)).

with the other two. Can anyone imagine a study that would treat the ozone hole as simultaneously naturalized, sociologized and deconstructed? A study in which the nature of the phenomena might be firmly

Now we cannot have it both ways. Either the networks my colleagues in science studies and I have traced do not really exist, and the critics are quite right to marginalize them or segment them into three distinct sets: facts, power and discourse; or the networks are as we have described them, and they do cross the borders of the great fiefdoms of criticism: they are neither objective nor social, nor are they effects of discourse, even though they are real, and collective, and discursive. Either we have

that the notion of deconstruction grasps as badly as possible. The ozone hole is too social and too narrated to be truly natural; the strategy of industrial firms and heads of state is too full of chemical reactions to be reduced to power and interest; the discourse of the ecosphere is too real and too social to boil down to meaning effects. Is it our fault if the networks are *simultaneously real, like nature, narrated, like discourse, and collective, like society?* Are we to pursue them while abandoning all the resources of criticism, or are we to abandon them while endorsing the common sense of the critical tripartition? The tiny networks we have

Latour sees in ethnographical descriptions the kind of associations that he thinks we need to look for in our own western society, because they are describing worlds in which the Nature and Culture separation is not the same as ours. This brings into evidence that this categorization is a result of a specific cultural development of western societies and not an universal truth. In other words, not all societies separate Nature and Culture so straightforwardly as Modern societies do.

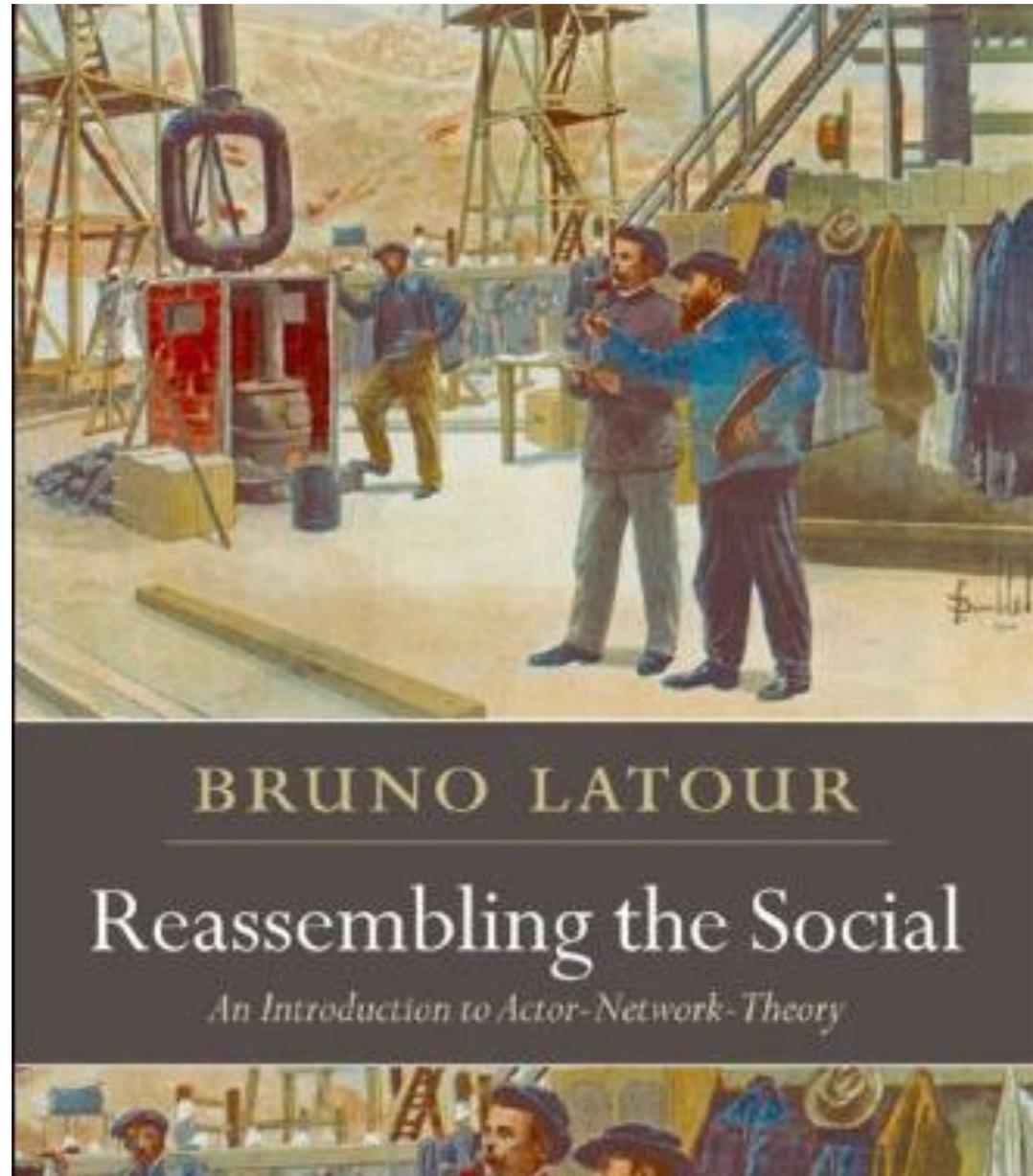
Just like us, non-modern societies are also full of hybrids. Therefore, anthropology is already equipped with the tools to trace associations –

Then, Latour argues for an anthropology of Modern Societies.

This would be a hopeless dilemma had anthropology not accustomed us to dealing calmly and straightforwardly with the seamless fabric of what I shall call 'nature-culture', since it is a bit more and a bit less than a culture (see Section 4.5). Once she has been sent into the field, even the most rationalist ethnographer is perfectly capable of bringing together in a single monograph the myths, ethno-sciences, genealogies, political forms, techniques, religions, epics and rites of the people she is studying. Send her off to study the Arapesh or the Achuar, the Koreans or the Chinese, and you will get a single narrative that weaves together the way people regard the heavens and their ancestors, the way they build houses and the way they grow yams or manioc or rice, the way they construct their government and their cosmology. In works produced by anthropologists abroad, you will not find a single trait that is not simultaneously real, social and narrated.

If the analyst is subtle, she will retrace networks that look exactly like the sociotechnical imbrolios that we outline when we pursue microbes, missiles or fuel cells in our own Western societies. We too are afraid that the sky is falling. We too associate the tiny gesture of releasing an aerosol spray with taboos pertaining to the heavens. We too have to take laws, power and morality into account in order to understand what our sciences are telling us about the chemistry of the upper atmosphere.

The new approach that Latour and others propose is...



ACTOR NETWORK THEORY – ANT-

- Actor-Network Theory (ANT) is rooted in Science and Technology Studies but many of its basic principles have been extended to other disciplines.
- It was developed in the 1980s by Bruno Latour, Michel Callon and John Law (*Quite a Male origin!!! Luckily, women have got into the scene and made important developments –Annemarie Mol, Donna Haraway, Anna Tsing, Marisol de La Cadena, and many more!*)
- ANT wants to understand how things like machines or technological systems come to interact with our society.
- It has been described as a method for doing in-depth research and to write ethnographical descriptions, rather than a theory.
- It has also been criticized, for example, for not focusing enough on issues of politics and power. Therefore, many of its first principles have been reformulated or clarified. Now we also talk about Material semiotics, post humanism, post-ant. It has been combined with feminist theory, political ecology, postcolonial theory... So what is describe in the following pages is a very basic introduction to ANT.



ANT rejects both **modernist and postmodernist** accounts of reality (this is related to the debate in philosophy about the notion of TRUTH and the notion of ESSENCE (what something “really” is beyond everything else)

In an extremely simplified way:

- Modernist philosophers believe that truth is something that **is out there** independent from humans. Natural laws are external and independent of human action. Natural laws can be discovered and described by scientist. Science is the only way to learn the “truth”.
- Postmodernist philosophers do not believe in the concept of truth at all, or they think that every individual can create his or her own truth mediated by representation and their cultural background. Therefore, everything is a social construction.

For ANT “truth” or “essence” should be understand as a **state of affairs (an assemblage)** that cannot be denied in a practical sense.

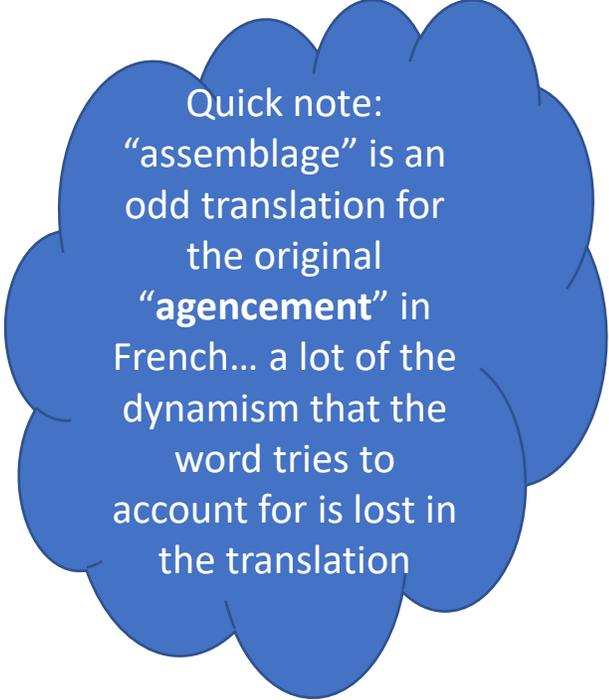
Therefore, ANT is not interested in essences or trues, but in the forces that shape and reshape the true essences the researcher faces when doing fieldwork.

This is why ANT pays attention to PRACTICE – the “doing”



Reality as an “Assemblage” or an Actor-Network

- For ANT, every situation or phenomena may be referred to as a **NETWORK** (a group of elements that interconnect and affect each other).
- The assemblage is composed of “**ACTORS**” (parts of the network that have some role to play) which have **CONNECTIONS** (ways in which the parts interact).
- Networks are the **ASSEMBLAGE** of people (human) and things (non-human). In other words **Associations** of people and objects form networks.
- For ANT, a network is always an **Actor-Network** (which explains the hyphen in the name of the method), because there are no things without the connections or no connections without the things.
- Things exist only as they are “**ENACTED**” (made in **practices**) - For ANT existence is first, essence is second.
- Truth does exist, but it can change over time. That is: essences can change.
- As long as the actors keep interacting the actant-network will look **stable** from the outside. The connections between their constituting actors will hold. However, if the interaction ends, the actor-network will break down. For ANT, no network is stable without the ongoing interactions between actors.



Quick note:
“assemblage” is an odd translation for the original “**agencement**” in French... a lot of the dynamism that the word tries to account for is lost in the translation

Reality as an “Assemblage”

This is where ANT is different from previous approaches in social sciences and for what it is more commonly known...

- An actor is something or someone that has **AGENCY** (defined as the capacity to affect a system)
- To avoid confusion with the word “Actor” so often associated only with humans, ANT started to speak of **ACTANTS**.
- In ANT, the differences between humans and nonhumans are not neglected (of course they are somehow different!), but they have no a-priori relevance. This is what they mean when they say they look at them **SYMETRICALLY**.
- According to ANT, each human, each piece of technology, and each natural factor (such as sunlight, air movement, temperature, etc.) has an equal part to play in the system and must be considered.
- CONCEPTS also play a role. They are also actants.

humans
are
overrated



In Deleuze and Guattari the English term 'assemblage' has been used to translate the French 'agencement'. Like 'assemblage', 'agencement' is an abstract noun. It is the action (or the result of the action) of the verb 'agencer'. In French 'agencer' has a wide range of meanings. A small French–English dictionary tells us that it is 'to arrange, to dispose, to fit up, to combine, to order'. A large French dictionary offers dozens of synonyms for 'agencement' which together reveal that the term has no single equivalent in English.³⁷ This means that while 'assemblage' is not exactly a mistranslation of 'agencement' much has got lost along the way.³⁸ In particular the notion has come to sound more definite, clear, fixed, planned and rationally centred than in French. It has also come to sound more like a state of affairs or an arrangement rather than an uncertain and unfolding process.³⁹ If 'assemblage' is to do the work that is needed then it needs to be understood as a tentative and hesitant

Reality as an “Assemblage”

So assemblage is a process of bundling, of assembling, or better of recursive self-assembling in which the elements put together are not fixed in shape, do not belong to a larger pre-given list but are constructed at least in part as they are entangled together. This means that there can be no fixed formula or general rules for determining good and bad bundles, and that (what I will now call) 'method assemblage' grows out of but also *creates* its hinterlands which shift in shape as well as being largely tacit, unclear and impure.

The concept of “Enactment”

Enactment is another word you probably will find in many texts. It is a verb commonly used to describe how things are made. It refers to the constant connections of the assemblage. To how things are “made in practice”. We owe the term to Annemarie Mol in her book *The Body Multiple*, (2002) who wants a term that is different from the idea of “construction” which she thinks is misleading....

“The term ‘construction’ was used to get across the view that objects have no fixed and given identities, but gradually come into being. During their unstable childhoods their identities tend to be highly contested, volatile, open to transformation. But once they have grown up objects are taken to be stabilized” (Mol, 2002, 42)

[...] “like (human) subjects, (natural) objects are framed as parts of events that occur and plays that are staged. If an object is real this is because it is part of a practice. **It is a reality enacted**” (Mol, 2002, 44).

As John Law later clarifies... Mol is making emphasis in the performativity of enactment:

“**Enactments**, it is being argued, don’t just present something that has already been made, but also have powerful productive consequences. They (help to) make realities in-here and out-there. To talk of enactment, then, is to attend to the continuing practice of crafting. Enactment and practice never stop, and **realities depend upon their continued crafting** – perhaps by people, but more often (as Latour and Woolgar imply) in a combination of people, techniques, texts, architectural arrangements, and natural phenomena (which are themselves being enacted and re-enacted)” (Law 2004 p, 56)



Annemarie Mol

ANT will also say that things are more than their parts: “connections lead to the creation of new entities that do not necessarily practice the sum of characteristics of constituent entities.”

“Another example of such fusion of entities into another entity is the gunman example that was introduced by Latour in Pandora’s Hope. Here it is stated that a man and a gun can form a new entity when they are connected in a third entity: the gunman. In spite of what has been argued by the American pro-gun lobby a man can not shoot someone all by himself. However, it cannot be said either that the gun is the cause of all problems. Guns that shoot someone all by themselves are quite rare. The connection that ANT wants researchers to focus on is the connection that brings the man and the gun together, and thus creates a gunman. A gunman is different from both a man and a gun in the sense that a gunman is able to shoot someone whereas both the man and the gun cannot do this alone.” [...]

“From this example we could conclude that war is caused by neither man nor guns. It is the connection between the two entities that we have to blame for all the cruel incidents that happen with it every day. If we would be able to break down the connections between men and guns the existence of both man and guns would not be a problem anymore.”



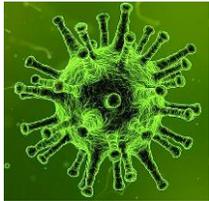
- During “fieldwork” (observation, interviewing, reading documents about the case, newspapers, etc.) connections between humans and non-humans can be traced.
- It is in descriptions we write where the connections that lead to the creation of a certain entity or phenomena are revealed (*that is why ethnographical descriptions are so revealing for Latour*)
- But description depends on the describer, so “it can be done differently every single time.”
- The description is what is going to set the limits of the tracing... otherwise you can trace associations forever.
- You can make a field of almost anything, not only of small indigenous societies as it was traditional in anthropology. We also use ethnography to do research about “modern” societies, for example, as Latour did in a scientific Laboratory, Annemarie Mol in a Hospital, Michell Callon about the cultivation of scallops, and many more examples!

Although according to ANT, all actants are presupposed to be equally important participants, actants are measured and valued by how they interact in the system.

To find what is relevant and what is not, ANT proposes the notions of:

- **Intermediaries** are actants that do not tend to change the system. They are important to keep the system running, but they are not critical.
- **Mediators** are actants that do cause changes in the system, impacting it in different ways.

e.g. If you are analyzing the phenomenon of a wedding, the bride, the groom, the rings are probably mediators, while guest or the venue might just be intermediaries... of course this depend on what it is that you want to describe about the wedding...



I bet COVID 19 is a key mediator in this wedding!

You don't start an ANT analysis by assuming that some parts matter and others don't. All are equally critical, and ANT principles demand that all be examined for their impact on the network. But in the description, differences between intermediaries and mediators will become evident.



[BBC.com - Mass masked wedding in the Philippines](https://www.bbc.com/news/health-55822222)

That is all for now!