

# Introduction to the inductive method and inclusive epistemology

Dominique Desjeux, anthropologist  
Professor Emeritus, Paris Descartes University, Sorbonne Paris Cité

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CMCT PhD Seminar, Department of Business Administration, Middle East Technical University Üiversiteler Mah. Dumlupınar Blv.  
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*Business & Innovation*

Dominique Desjeux

# **The anthropological perspective of the world**

**The inductive method illustrated**

  
PETER LANG

## How to make a link between abstract concepts and concrete qualitative data

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What is the relationship between the world of field studies and that of theory?

How to move from a “mere” description to an interpretation – what is the meaning of the word “theory”?

The solution I propose here is based on my own experience in carrying out socio-anthropological qualitative field studies since 1969. It represents one possibility among others.

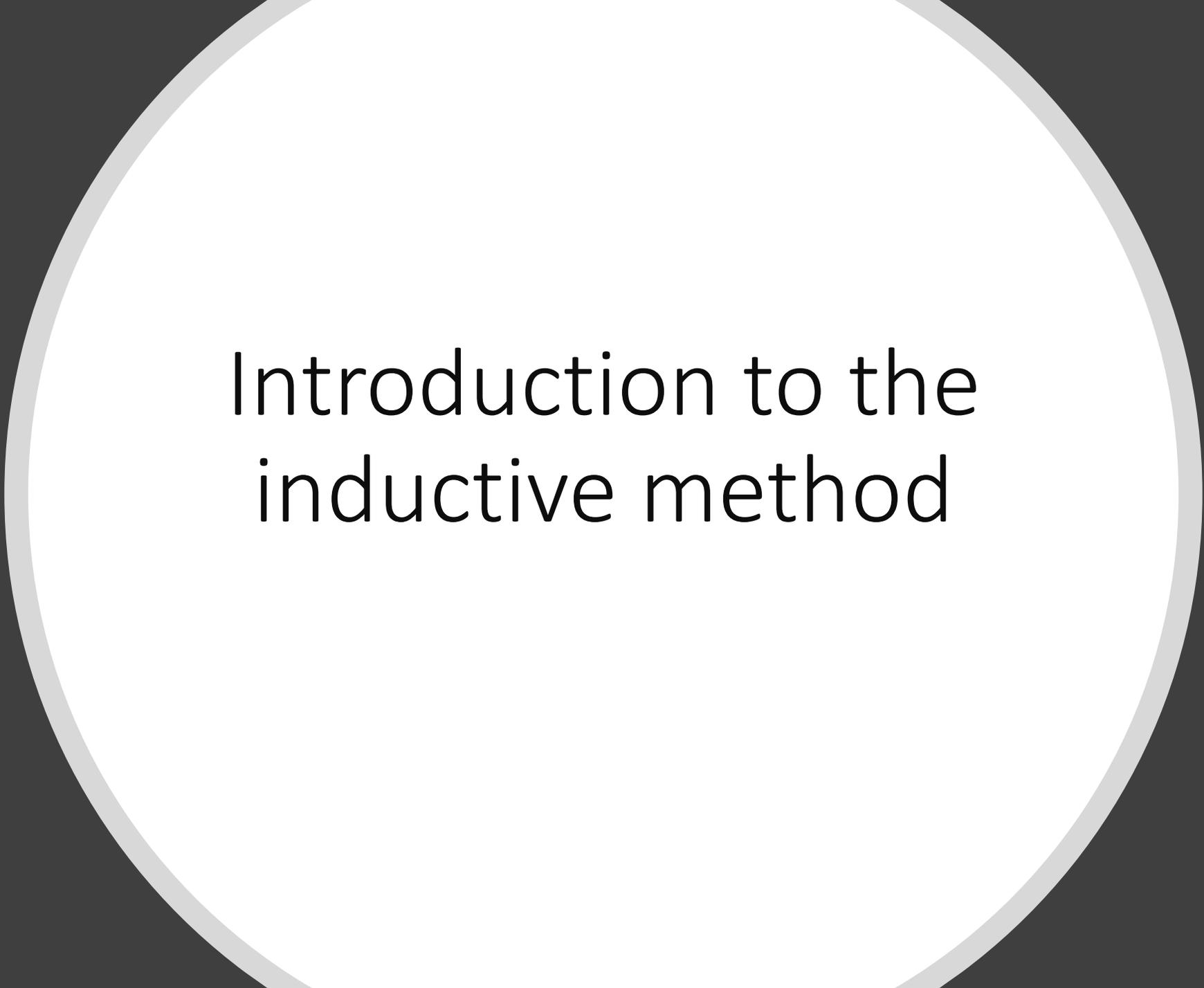
Cf my last book, published in 2018, *The anthropological perspective of the world. The inductive method illustrated*.

One solution  
consists in  
looking at reality  
as an enigma to  
be solved.

- Most of my field studies are requested and financed by social actors, mainly private companies, public organisations or NGOs.
- Hence each time, I am asked to solve a problem such as:
  - how to develop a market in China
  - why a new technology has succeeded or not
  - how to change the organisation of a big company
  - why families are not following the prescriptions of the doctor
  - how homeless people deal with daily life
  - what the link is between disabled persons and consumption
  - how to improve the digitalisation of professional practices in a high school.
- **Today the enigma is how to make a link between description and concept.**

Solving a  
concrete  
enigma helps  
to create  
“descriptive  
concepts”

- A descriptive concept fits with reality.
  - For instance, if I work on the political organisation of a society I can start with the concept of State, which is a very abstract word and so very often an ideological word full of value judgments for or against it.
  - I can shift from the abstract concept of State to the one of “bureaucracy”, as Max Weber did. It is more concrete. M. Weber describes the main features of a bureaucratic system, such as “impersonal rules”; “promotion by seniority”; there are no concrete social actors.
  - I can then shift to a more concrete concept of organisation of a public administration or department in order to describe the “social interplay of the civil servants” based on power relationships and social networks.
- The functioning of an organisation is the “descriptive concept” of State.
- How it functions is the enigma to be solved, and so a great number of descriptions are needed.



# Introduction to the inductive method

# What is an inductive method?

- It means launching a qualitative field study without knowing where to go and how social actors deal with the problem we are asked to clarify.
- We are like a western navigator of the 16th century discovering a new world.
- He only has three tools:
  - a compass to know where the north is
  - a sextant to calculate his position
  - a lead line to measure the depth of the water and so avoid rocks.
- And one methodological hypothesis that is the rotundity of the earth... but without any certainty when going west

# My four main tools of navigation to describe a social reality as a system

- The **scales of observation**
  - Reality changes when changing scale
  - The causality is not the same depending on the scale
- The **itinerary method**
  - The decision as a collective process
- **Qualitative life cycles**
  - Describing the construction of social identity
- The **open system of action**
  - Discovering who are the social actors involved in the process of innovation, using a consumer product or a service or a decision-making.
- These are the mental frameworks I have in my mind when discovering a new reality.
- But I have no hypothesis about any link between one phenomenon with another.
- I only know
  - it is impossible to observe a social reality all at once (*d'un seul coup*). I have to make slices of (*découper*) reality. There is no holistic field study.
  - it is important to make a distinction between practices and representations.

# Five principles to carry out precise qualitative field studies

- **1 - Induction**, as a means of exploring reality without making any hypothesis other than methodological hypotheses. With the inductive method we presuppose that there are material, social and symbolic constraints which organise the behaviour of actors (and the gaps between representations and practices), as well as the effects of lifecycles or gender-based division of tasks. Finally, the decisions made are seen as resulting from a process over time (and not a single moment), and as the result of social interactions, at least at our microsocial and meso social scales of observation.
- **2 - Ambivalence**, which postulates that all reality contains a negative side and a positive side, and that these are indissociable.
- **3 - The generalisation of the diversity of usages** as a function of their occurrence (which generally varies between 2 and 5), avoiding any interpretation in terms of frequency, which would not make any sense for such a small sample. A practice observed once is as valuable as a practice observed 10 times, and sometimes even more if it is the sign of a **weak signal** which is currently emerging. It is also possible to generalise social mechanisms or cultural models, but without concluding anything in terms of frequency, which would be the task of a quantitative investigation.

These five principles form the basis of the reliability of qualitative investigations.

- **4 - A comprehensive approach, without value judgments or accusations.**
  - We take the point of view of the actors as a point of departure in order to understand their practices and the sense which they give them,
  - in order to display the underlying social mechanisms which are beyond the actors' mere perceptions or experiences.
- **5 - A principle of symmetry** with respect to the effectiveness or ineffectiveness of an action. An action which is ineffective is as interesting to observe as one which is effective

**We postulate that a quantitative frequency is not truer than the diversity of occurrences, but that it teaches us something else.**



Discovering the gap  
between concept and  
reality

How I was  
confronted, as a  
young  
researcher, with  
the gap between  
abstract  
concepts and  
concrete data

- In 1975, I was sent to Congo for 4 years in a college of Agriculture at the University of Brazzaville, to teach anthropological methodology applied to rural development projects.
- Before going to Congo, I read many theoretical books about the small farmer rules of kinship and economical system of production.
- The main theoretical concept was the one of “lineage mode of production”, which is a very abstract term.
- It mainly refers to how old men dominate young men and women in the context of rural villages.

When I started  
my field study  
within the village  
of Sakameso,  
I was searching  
for this mode of  
production

- I had to describe the process by which men and women cultivated cassava, a root which needs one year to ripen, and which could be picked for two years every two weeks.
- Cassava is like a “natural granary”, unlike wheat, which needs a “built granary”.
- That is why most often there is no central State involvement when small farmers cultivate roots, unlike cereal, which needs irrigation systems and systems of granary stock, and so State involvement.
- Cf. James C. Scott, 2017, *Against The Grain. A Deep History of the Earlier States*, Yale University Press (-3500 BC)

# I did not see any lineage mode of production

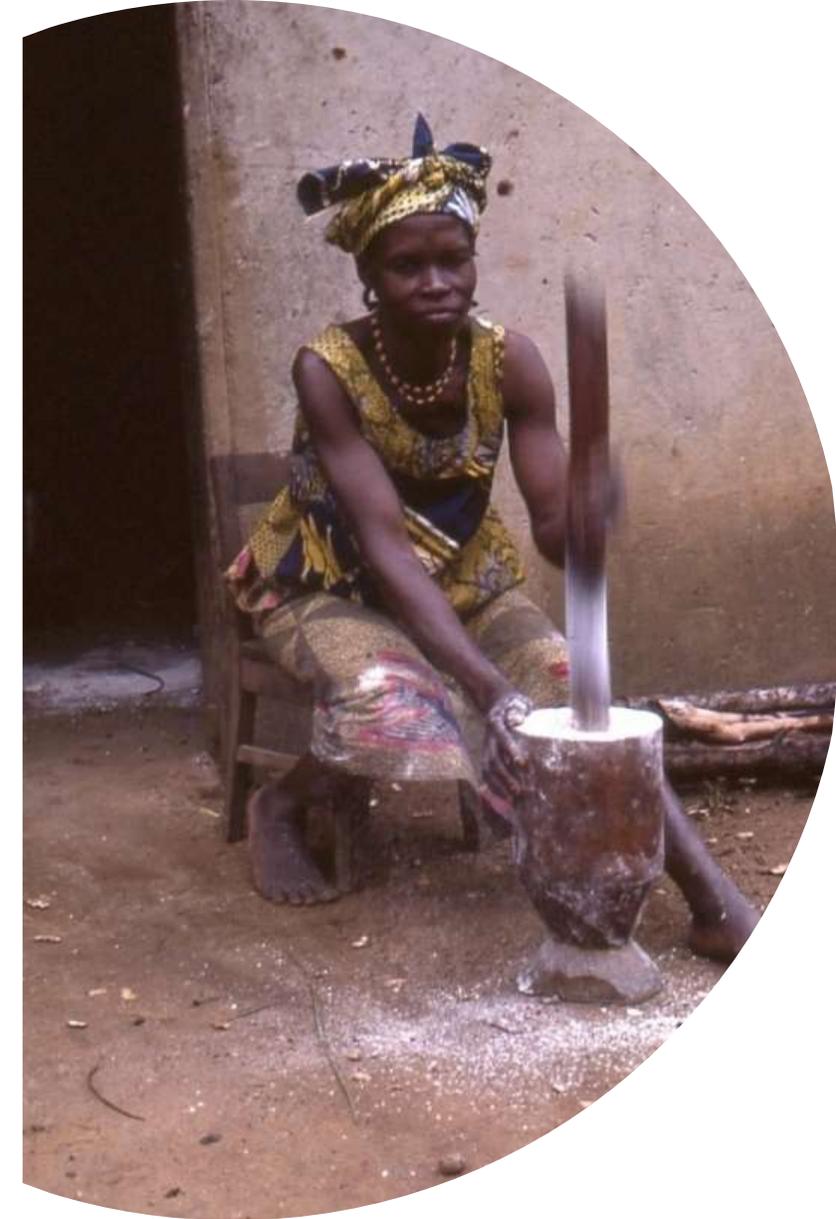
- I observed men cutting wood to prepare the cultivation of cassava, which is a typical gender division of labour



Women planting  
cassava

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## Processing of cassava by women

Removing the hydrocyanic acid

Selling the cassava

Transforming the manioc into cassava flour for cooking

Wedding ritual  
with a gender division of  
the village public space





•Cults against bewitchment

I finally discovered the three main levels of social life, based on three “descriptive concepts” linked to three kinds of constraints

**Material culture** based on the agricultural itinerary of cassava

**Social relationships** between men and women, old and young people and among members of families: power relationships, cooperation and building of identity.

**The imagination or symbolic level** with “witchcraft” and “sorcery” (which are difficult to distinguish).

- Witchcraft is a way to explain the difficult times of daily life and so to give a meaning to life.
- Later I applied this dimension to deciphering advertising as an animist process

**Each level is linked to a set of material, social and symbolic constraints**

This approach mainly works at the mesosocial and microsocial scales of observation

I apply these three sets of concepts to a great number of situations such as consumption, innovation and decision-making processes in organisations, households or open social systems of action

## The level of material culture

With material culture I try to find the ways (itinerary method) by which a consumer good or a service is obtained or “built” or “created” by social actors, individuals or collective actors

My main questions are: how do you do this or that, with whom, and where, in order to describe the concrete system of objects. I have no question based on why.

When understanding the system of objects, I elucidate the invisible constraints which weigh on social practices and on the decision-making process

So I know **thanks to these constraints why actors do what they do**. Most often, but not always, they adapt their decision to their constraints

Chapter 7, The Enigma of Innovation  
Dominique Desjeux, Ma Jingjing

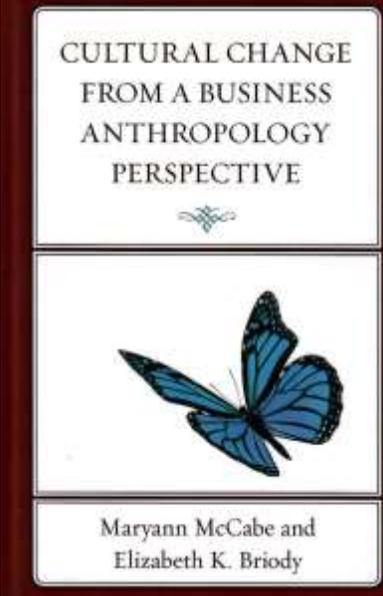
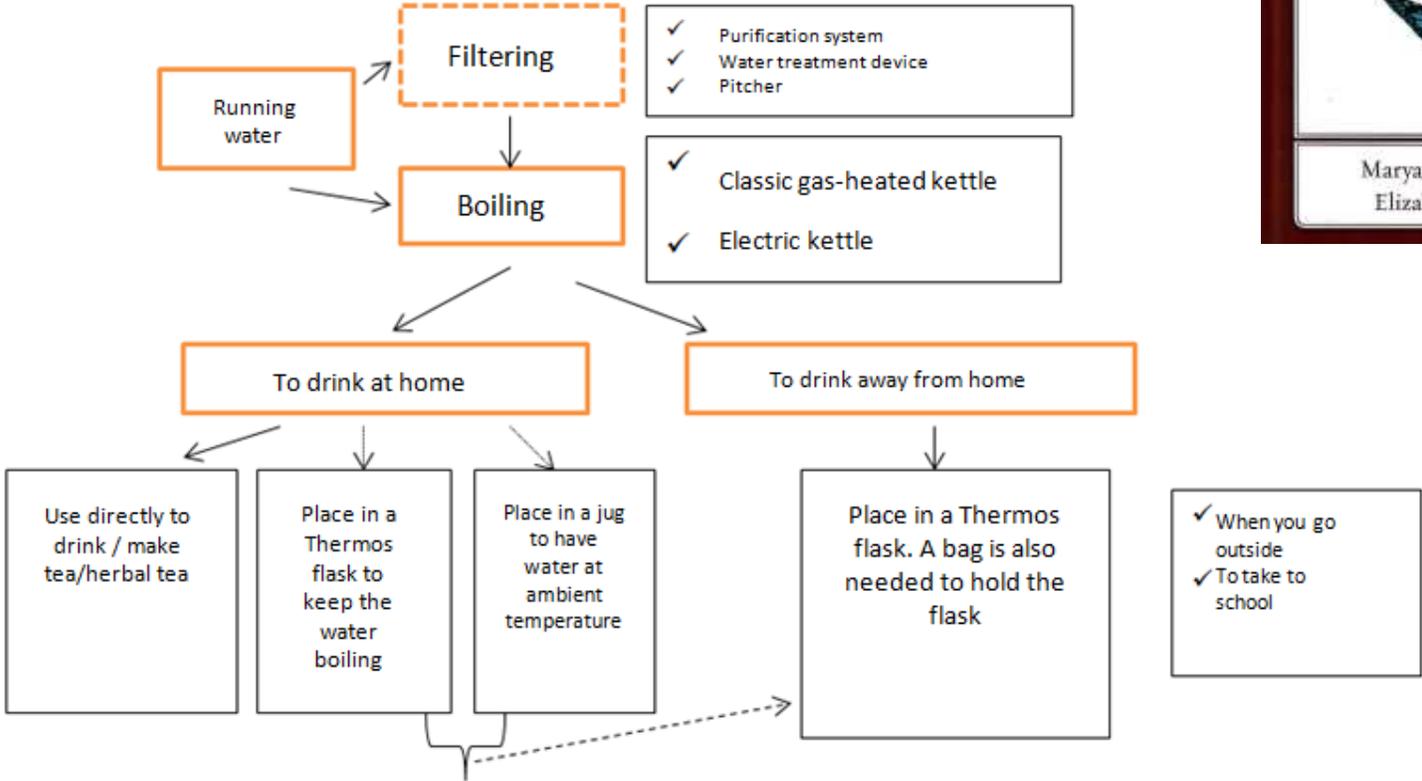


Diagram 1: the water system in the home



An example of system of objects applied to non-alcoholic beverages in China

The level of social relationships, which means analysing the social interactions, the social interplay among actors

With social relationships, I try to describe who are the main actors involved in the social process depending on the stage of the itinerary

- Where is the “area of uncertainty”?
- Who is controlling this area?
- What are the constraints which weigh on the social situation?
- **It is the level of practices, social strategies and constraints and potentiality**
- **My main question is how?**

# The level of imagination

It is the world of representations in which opinions, values, symbolic meanings, and perception of reality are found

It is the main level by which I discover what the actors' meanings of life are, how they build their identity (cf. life cycle method)

**Most often I find that there is a gap between the world of representations and that of practices**

**I explain this gap by the existence of the material, social or symbolic constraints**

That is why the world of representation is most often interpreted as a way to justify social action than as a "triggering event" of action.

There are some exceptions such as "activist", "believer" or "entrepreneur" actors, for whom the imagination is very important in helping to trigger action.

**My main question is why?**

# The 10 great material, social and symbolic constraints which organise the diffusion of innovations

## The 4 material constraints

- **Time:** Does the proposed change save time or waste time?
- **Space:** is there enough physical space to make the change (bathroom, bedroom, or living room at home, and sales areas outside)?
- **Budget:** can the change be borne financially?
- **The system of concrete objects** necessary for the use of a new product or service.

## The 4 social and psychosocial constraints

- **Mental burden:** does the change lower the mental burden or not? This is an important concept which comes from ergonomics. The change will be difficult to bring about if the new practice increases the mental burden, for instance if it is more complicated to use.
- **Learning:** is it complicated to learn? This constraint can disappear if there is a strong constraint of survival or budget.
- **Group norm:** between what is more or less implicitly prescribed, permitted, and forbidden within a group
- **“Predigital” and digital social networks** as a basis for the interplay of actors who produce norms in favour of or against an innovation

## The 2 symbolic constraints

- **Personal or professional identity:** Will the change “lower or raise the face” of the other, as they say in China? Does it affect male or female identity or social status?
- **Perceived risks** in the case of cosmetic products: are the cosmetic products perceived as being threatening for the skin or for the eyes?

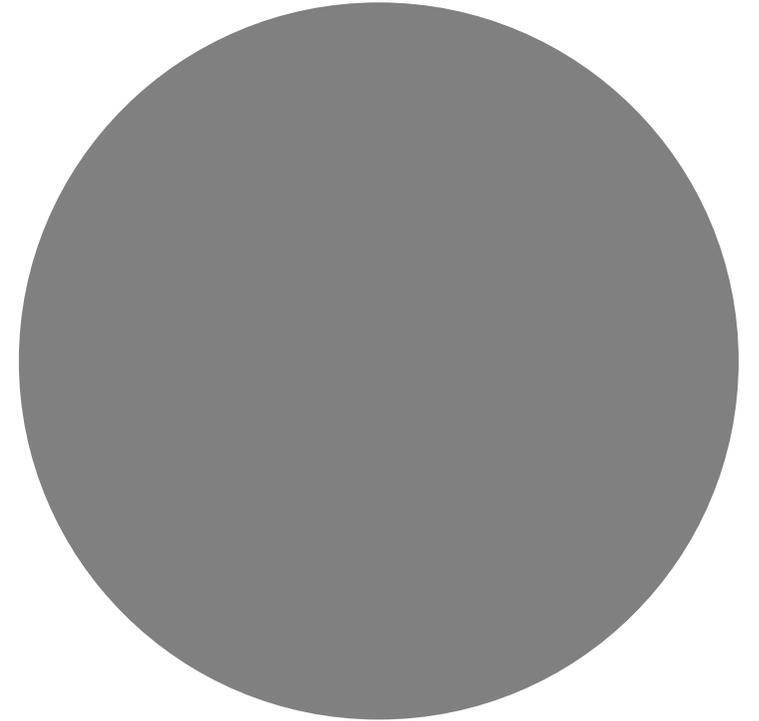
Learning how to abstract a pattern of explanation from the description of a reality and then transposing it to another reality thanks to “descriptive concepts”



Decision-making process

Area of uncertainty

Constraints





## Thanks to the agricultural itinerary, I discovered how to make a link between a decision-making process and an itinerary

What I learnt when observing big organisations with French sociologist Michel Crozier in 1969-1971, is that a decision could be observed as a collective process, and not only as a individual trade-off at one moment.

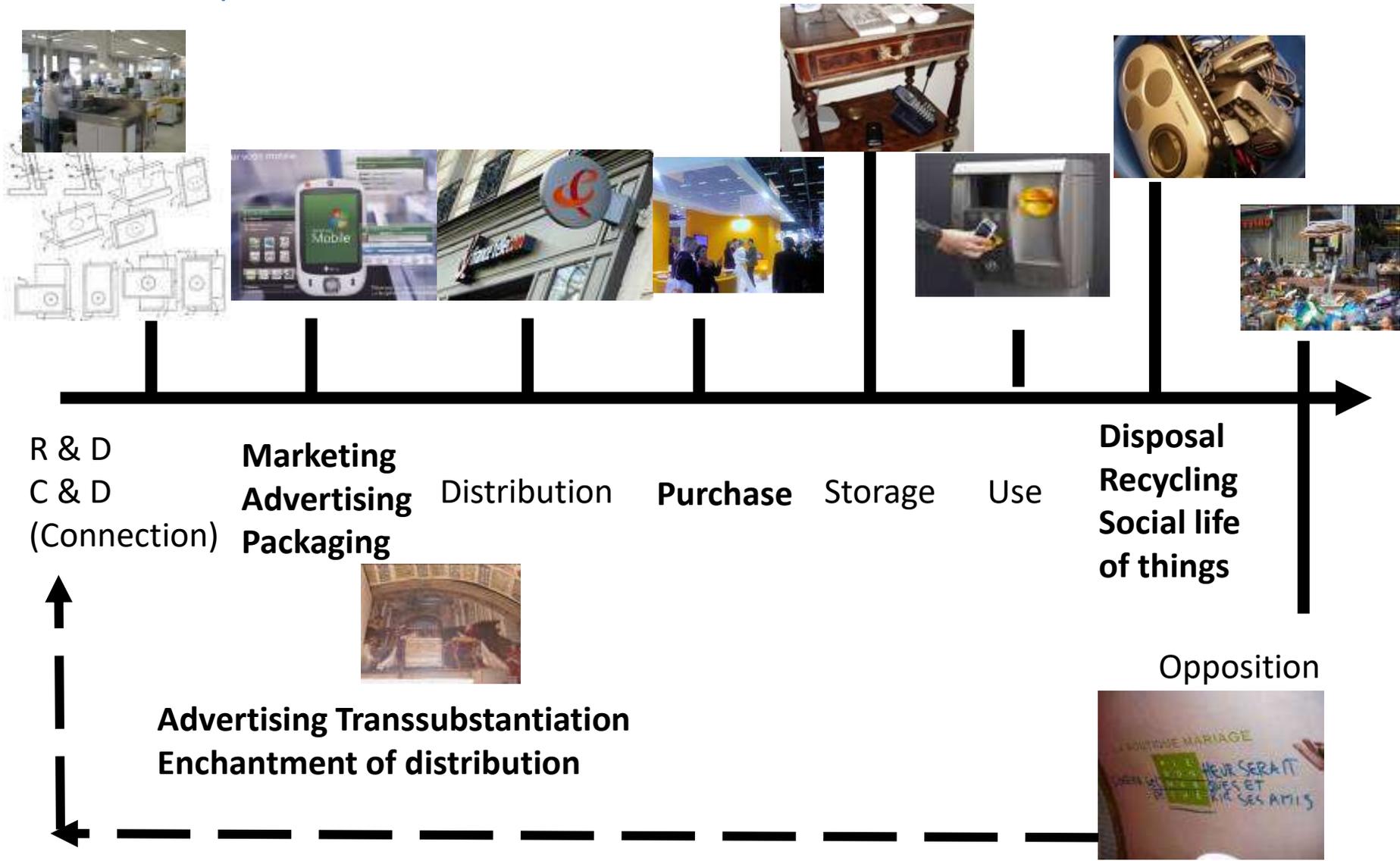
Now I know that it depends on scales of observation, as I discovered in 1987 when writing about Congolese small farmers.

At a micro-individual scale of observation a decision can be analysed as a trade-off made by a person.

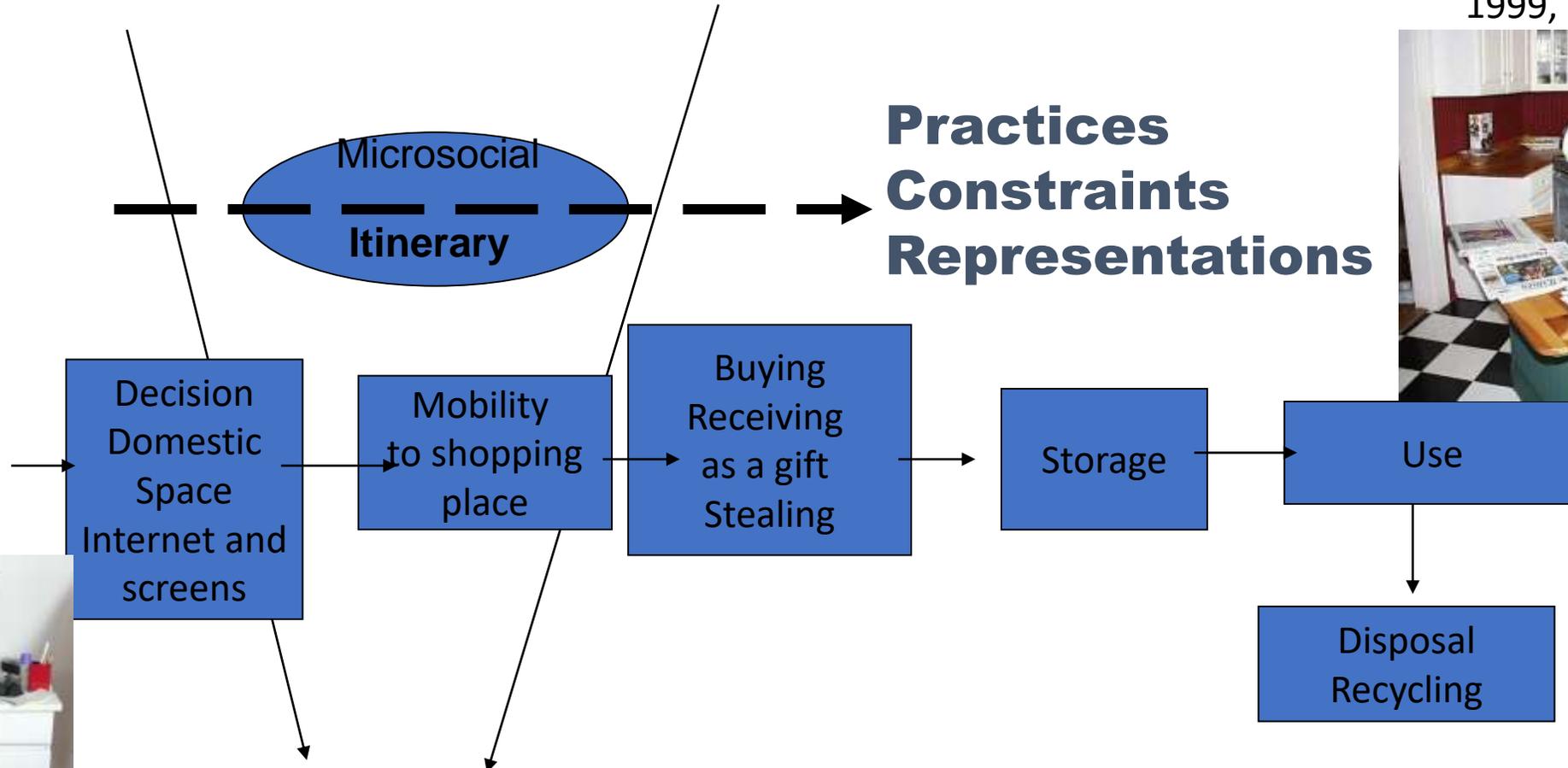
At a mesosocial and microsocial scale of observation a decision is analysed as a social process made up of interactions among several actors under some constraints of situation

At a macrosocial scale the decision vanishes, and is replaced by correlation as an indicator of causality.

# An example of itinerary following the stages of the life of a product or service: production, transformation, circulation, consumption, and disposal



# The itinerary method applied to food consumption behaviour: the decision-making process



2018, computer, France

Thanks to  
witchcraft I  
discovered how to  
abstract and then  
to transpose the  
concrete concept  
of an “area of  
uncertainty” from  
the world of big  
organisations to  
the one of small  
farmers

- When observing big organisations I understood that the question of power is not limited to the one of domination which “squashes” the social interplay of actors, nor the one of authority which only focuses on an individual feature, even if domination and authority do indeed exist.
- At a mesosocial and microsocial scale of observation power is seen as a relation among actors which are organised around an area of uncertainty.
- In big organisations a typical area of uncertainty is machine failure. The time when this occurs is unforeseeable.
- Most of the actors therefore depend on those actors who are able to repair or change a piece of machinery.

1971, divination in Madagascar



Photo D. Desjeux

The area of uncertainty is a source of power and so, in this situation, power is not an asset but a relation

- The area of uncertainty is most often controlled by the maintenance workers, who are able to go fast or slowly to repair the machine and so have the choice whether or not to disadvantage the other workers
- That means that if that area changes, the power relationships will shift from one kind of social actor to another.
- It is frequent in the process of digitalisation in which most of the organisation are involved. It is a new form of expertise, and so it brings new uncertainty and therefore new actors controlling this area of uncertainty.

# The transposition of the area of uncertainty from maintenance to witchcraft

- To make a long story short, in the Congolese village there are many areas of uncertainty, such as the climate for agriculture when there is too much rain, for example.
- The other area of uncertainty is the moment when one will die. It is believed that there is no natural death.
- It means that the death is seen as being provoked by the chief of the family, the head of the lineage (the brother of the mother in a matrilineal system of kinship)
- The head is supposed to have the power to protect the members of the family or to cast a spell on any member.
- Hence when a member of the family is sick or dies, he or she is thought to have been killed by the head of the family.
- His power is based on the control of this area of uncertainty. He is able to threaten the members of the family who disobey, for example.
- That means his power is based on a symbolic belief.
- In fact it is necessary to “turn around” the explanation in order to understand that this explanation is mainly a way to give a meaning to the pains of daily life, but this explanation/belief is also a power device in the hands of the family heads.



Brazil, Sao Paulo, 2006

# Scales of Observation of Consumption

- Macrosocial scale: Individual actor is invisible
  - General view of social classes, genders, generations and cultures
  - Regularity and average figures
  - **Consumption as a lifestyle**
- Mesosocial scale
  - Organisation and social system of action
  - **Consumption as a power relationship among actors**



France, Bordeaux, 2005



Beijing 2007



Paris 2007

What is seen on one scale disappears at another scale of observation.

- Microsocial scale
  - Interactions among actors
  - Consumption as an itinerary
- Micro-individual scale
  - An individual is mainly visible at a micro-scale
  - An individual is unique
  - Consumption as a trade-off

The  
observation of  
reality is  
discontinuous  
and so there is  
no overall  
theory

- If there is no overall view of social reality, that means that there is no overall theory.
- Each limited generalisation is valid at one scale of observation and within the nearby scales.
- And so there is only “limited generalisation”.
- That is why each theory has a share of validity alongside other theories.
- And so, on the one hand, this is an inclusive epistemology which accepts what is true in each approach.
- But on the other hand it is not a merging theory, because there is no overall theory which integrates all the other explanations of the reality.
- Ultimately a theory is not valid when it attempts to provide an overall explanation for the whole of reality.
- When a theory is too coherent it is a sign that it is not a relevant theory, because a paranoid is very coherent...

One main conclusion is that when the scale of observation is changed, not only the content of the reality changes but also the causality

For example, **domination** is a concept which works at a **macro-scale of observation** the causality of which could be based on correlation as an indicator of a statistic causality

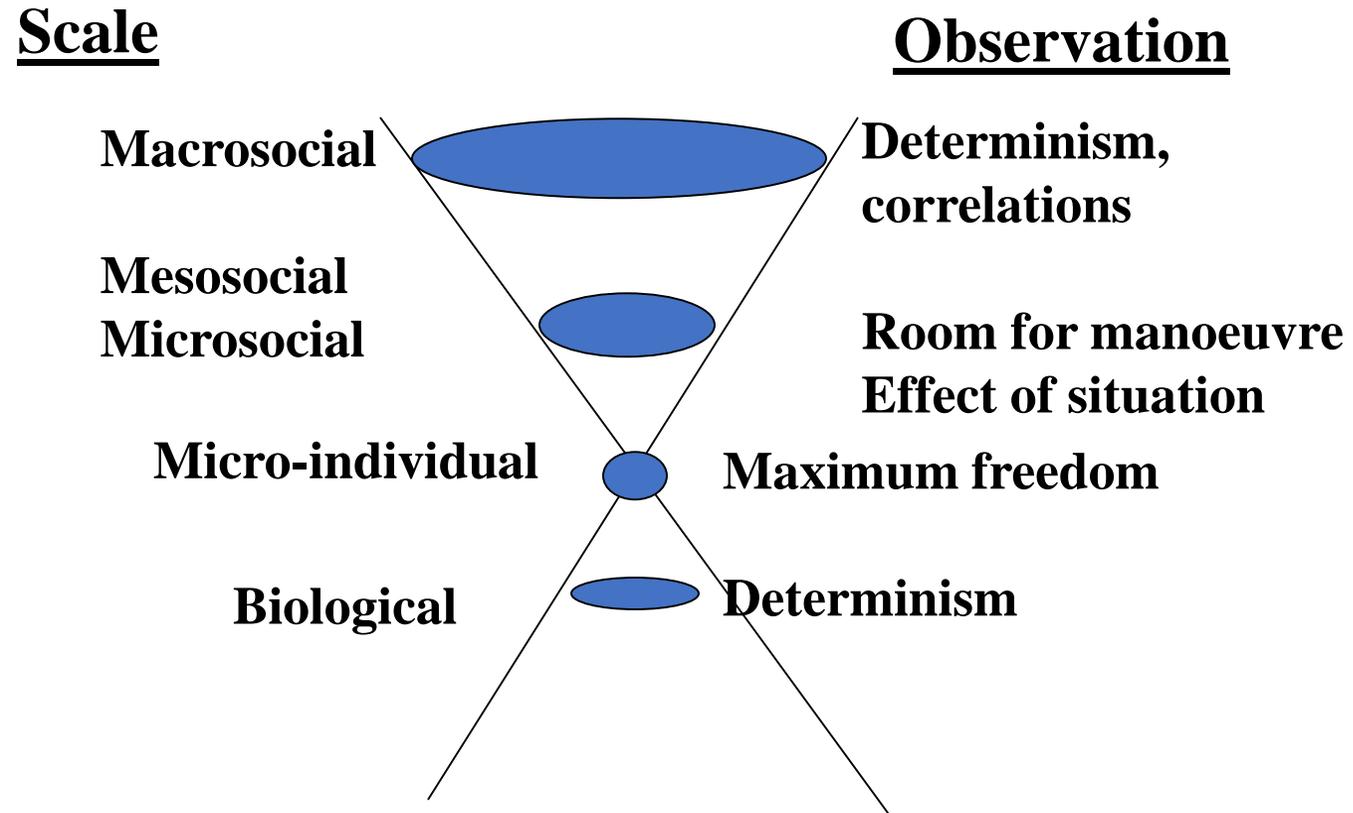
But at the **mesosocial and microsocial scales of observation**, the causality depends on **constraints**, that is on the “**effect of situation**”, which is an instable system of action.

The instability of the situation and the variability of constraints explain why social actors have **margin for manoeuvre** and so are not dominated, i.e. they are not passive

cf. *Asylum*, in which Erwin Goffman shows the margin for manoeuvre of “insane” people

At a micro-individual scale of observation meaning could be seen as a causality to explain why a subject does an action, without eliminating other factors of causality such as constraints, cognitive perception or the unconscious.

# Freedom and scale of observation



What is the  
solution of the  
enigma?  
First phase:  
discovering  
truth

- The first objective of a qualitative field study is to discover what is truth, but not what is the Truth.
- So one important moment, when you gather information, is the way you ask people what their practices and meanings are.
- The quality of your information ensures the truthfulness of your field study.
- Truth is then discovered in describing the reality you draw from observation and discussions with “subjects”.

Second phase:  
from  
subjective  
information to  
objectivisation  
of qualitative  
or quantitative  
data

- Whether a study is qualitative based on interviews or quantitative based on questionnaires, you always get information from an individual.
- This “subjective phase” allows us to transform a “concrete subject” into the “descriptive concept” of a “social actor” or concrete daily life into a “system of action”.
- A descriptive process means that you are able to show the link between a reality and a concept. This is induction, as demonstrated by Bronislaw Malinowski in *Argonauts of the Western Pacific* (1922)
- This “objectivisation” is based on a process of “abstraction”, and is a cognitive mechanism which is included within the description when describing social reality as a set of systems, a social structure, a process of identity building, a meaning of life or a correlation.
- “Objectivisation” means that objectivity is impossible in anthropological study because there are many links between the observer and the observed

# Third phase: abstraction and transposition

- The content of the abstraction is the fruit of very pragmatic issues, i.e. practice under the practical constraint of the “*découpage*” (cutting out, slicing) of reality.
- Abstraction depends both on the scale of observation and on the theoretical framework which allowed you to transform concrete information into qualitative or quantitative data.
  - “Social actor” is one of the socio-anthropological concrete concepts of the word “individual”.
- Thanks to the first transformation/abstraction of an individual into a social actor it is possible to read the social reality as a system of action, as a system of concrete interactions based on power relationships organised around an “area of uncertainty” all along an itinerary process of decision-making working under material, social and imagination constraints.
- And so it is possible to transpose these “descriptive concepts” of social actors, system of action, and so on from one field to the world of organisations, to the world of small farmers in Congo, and then to that of families and consumption in the modern world in France, the US, China, Brazil, Denmark, and so on...

# Where does a concept come from?

- Most often concepts are so abstract that it is impossible to understand how to link them with our research.
- That is the problem which I had with the abstract concept of a “lineage mode of production”.
- I needed to understand the whole chain of concrete concepts between the daily life of the village, the descriptive concept of the system of social actors and the abstract concept of the lineage mode of production.
- This concept does not refer to the situation and so the uncertain “interplay” of the social actors. It refers to the concept of domination as a principal explanation in which there is no interplay. This concept comes from the macroscale of observation, and so it does not fit with my observation, even if it is an interesting concept.

- One main point is the constraints of “*découpage*” (taking slices), which leads to the disruptive conclusion that there is no overall theory but only “limited generalisations”.
- There are only theories fitting with the scale of observation on the basis of which the data have been gathered.
- It is of course possible to utilise some patterns of interpretation from other scales of observation to clarify our data, but not in a chain of causality because the process of information is discontinuous.
- It is an inclusive epistemology but not a merging method. Each theory has its own relevance which depends on its scale of observation.
- And so, one solution to our enigma is to search at what scale of observation each concept has been produced in order to find how it fits with our description.

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# Opening

