15-2 - Aristotle's theory of price formation and views on *chrematistics*

Failing to confirm the law of demand and supply

My discovery of Aristotle's works on economics is that of a personal quest. I lived in 1973-74 for 15 months on a Breton island: the Island of Houat, off the coast of Brittany, where I joined in in the local fishing. The fishery was then thriving but is nowadays much on the decline. I collected data on volumes and prices for the catch of fish, crustaceans and shellfish.

I expected the law of demand and supply to be easily vindicated, which assumes that for a fixed demand, a reverse correlation will be observed between prices and quantities offered. This could not be observed in the data collected. Interestingly this is the case also in a recent paper about the Boulogne fish public outcry:
http://jasss.soc.surrey.ac.uk/15/2/3.html

No alternative model that I could find accounted for the data I had collected, that is until I remembered an article called "Aristotle Discovers the Economy" (1957), an article by Karl Polanyi (1886-1964), popular in economic anthropology, a field of research of its own, which has two founding fathers: Marcel Mauss (1872-1950), a nephew of the famous early sociologist Emile Durkheim, and author of "The Gift" and Polanyi, a Hungarian historian and political scientist who had written about the Dahomean kingdom and its markets in the country formerly called by Europeans “Slave Coast” and nowadays called “Bénin”.

Aristotle

Aristotle was a Greek philosopher from the IVth century BC. He was "second generation" from Socrates, who is commonly regarded as the first philosopher (there are no writings of Socrates as he refused to write). Plato was most probably a pupil of Socrates. Aristotle was a pupil of Plato. These two turned out however to hold very opposite views: laying the ground for nearly all later philosophical debates.

According to Aristotle, there are three ways of knowing the truth:

observation + the experimental method,

creating definitions: a foal is the young of a horse (axioms in mathematics are of the same nature as definitions).

Coming to rational conclusions using the *syllogism*:

in the syllogism one brings together two admitted truths having one element in common (called the "middle term"). The remaining elements (the "extremes") will be brought together in the conclusion while the "middle term" is being eliminated.

Example:

Whales are mammals

Mammals feed their young with milk

Therefore whales feed their young with milk

"Mammals" is the "middle term", which gets eliminated from the conclusion, while the extremes "whales" and "feeding their young" are brought together.

The *Nicomachean Ethics*

Aristotle acted very much as we would expect a modern scientist. He resorted to mathematics for instance for modelling purposes. He borrowed the theory of the proportion from his contemporary and one believes, friend, Eudoxus, who turned out later to inspire or be the teacher of Euclid, the famous geometer.

There was an early defeat for mathematics: the obstacle of *irrationals*. The diagonal of a square cannot be measured in the same unit as its side (the decimals go on forever); similarly, the circumference of a circle or its area cannot be measured in the same unit as its radius or diameter. Eudoxus perfected a way to deal with the irrationals by inventing the method of *exhaustion*.

The theory of the proportion is used by Aristotle to explain logic, with the *syllogism*, the *analogy* (used in rhetoric, but also before one starts a scientific reasoning, as a way of setting up the issue at hand), also for justice (which is of two types: *corrective* and *distributive*), and for price formation.

Aristotle's price formation theory

Aristotle's price formation theory worked actually for my data, it states that "Price is set at such level that after a transaction, the social order is identically reproduced as it was before". If you are poor, you will be exactly as poor after a commercial transaction than you were before; if you are rich, you will be exactly as rich after a commercial transaction than you were before.

A power balance exists therefore between buyer and seller which is that of their mutual location within the social pyramid. This is a view very similar to what the French sociologist Pierre Bourdieu held: that social institutions ensure the reproduction of the social order although I'm not aware he ever mentioned this with respect to prices.

Aristotle's remarks on price formation come at the end of a lengthy reflexion on justice. He remarks about price formation as opposed to *distributive* justice that it is the same except that the proportion is *diagonal*, referring obviously to some missing model, which I managed to rebuild.

Aristotle's example for price formation is that of a shoemaker and a mason working for each other, the mason making a house for a shoemaker in exchange for a number of pairs of shoes being made by the shoemaker.

The first case of figure which can be envisaged is one where they work for each other for the exact same length of time: the shoemaker will stop making shoes for the mason's household whenever the house that the mason is building for him has been built. If masons and shoemakers are of equal status they will work for the exact same amount of time: they will exchange their time on a one to one basis.

The second case of figure is that where the mason and shoemaker are of different statuses. Let's say that a mason is worth *n* times a shoemaker within the social order of a particular society, then they will not be able to exchange their time as having the exact same value: the shoemaker will have to be working for the mason, *n* times the time the mason spent building a house for him. In that way, the social order will have been reproduced at the end of the process, in the exact state it was before.

That pattern applied accurately to prices as I could see them being set in the figures I had collected among Breton fishermen. The model explained very well also what I observed later in the African fisheries but as well in the world of finance.

Aristotle and "value"

"Value" is supposed to be some hidden entity explaining why a price is the way it is.

Aristotle talks about money, about interest, but never does he mention "value". The term "value" appears in a mistranslation of Aristotle that has now been located by Sylvain Piron in his article: "Albert le Grand et le concept de valeur" (2010).

Both economist Joseph Schumpeter (1883-1950) and Karl Marx (1818-1883) claimed they couldn't make sense of Aristotle's theory of value, which is logical as the word "value" is absent from Aristotle's text. The word "value" was actually added in the translation of Aristotle by Albert the Great, a 13th century Scholastic thinker. The words translated by "value" in Aristotle say simply things like "as measured in terms of price".

The current view is that Aristotle says that there are two types of "values" for a good: "use value" and "exchange value". What he says in truth is that for a good, there are two possible *usages*: a "proper usage", linked to the nature of the good and an "exchange usage". The proper usage is the good's destination, like for a shoe to be worn when walking, and a second possible usage: to be exchanged for something else. What Aristotle says is straightforward but just think of the endless literature which has been devoted to trying to understand and explain what he supposedly meant by "use value" and "exchange value"!

Aristotle's views on *chrematistics*

Aristotle's so-called *Economics* ("household management") is not regarded nowadays as being one of his works and can be ignored here, but he discussed the economy in the book called *Politics*, "politics" referring to the "polis", the "city", but in the way we would say nowadays, the "nation". *Chrematistics*, or the art of how to make a fortune, of how to create wealth, is something Aristotle had harsh words for.

Money is special says Aristotle in that, while the "proper usage" of a good is different than its "exchange usage", with money they are identical: its "proper usage" is its "exchange usage"; only money has this very special property. In addition, trying to use money for other purposes than its own destination – which is to be exchanged – necessarily upsets the harmonious working of society.

A Greek city's ordinary citizens use money for exchange. But traders, merchants, are led by their profession to regard money to some extent, not as a means for exchange, but as an aim in itself. An ordinary citizen, says Aristotle, should not get confused by what he sees money to represent for a trader: happiness as far as he is concerned has got nothing to do with the accumulation of money. Looking for money for the sake of money is only a trader's – so to speak – "professional disease". Now in ancient Greece traders were foreigners, they were not citizens of the city, and this fascination for money that they were displaying was therefore foreign to a society's proper values.

We know of course that the way of envisaging money which was rejected in ancient times by Aristotle as being improper has very much become since the end of the 19th century the way which has been widely promoted and recommended.

Aristotle about *capital* and *interest*

Aristotle mentions also that ways of trying to make money to produce more money, i.e. using it as *capital* as we say now, is akin to being an "incestuous" usage of money. Accordingly, he condemns interest as being the reward for using money as *capital*.

It is often said that Aristotle condemns interest but what he stated goes actually much further: he condemns much more broadly the simple fact of regarding money as an end by itself.

Aristotle's *philia*

What is most relevant in Aristotle as far as is concerned our concern for "stewardship of finance" is Aristotle's notion of *philia*.

The Greek word “philia” can mean love, benevolence, generosity. Philia is the goodwill we bring in order to make things work in a social environment. It is the “binding” element in society.

Price formation as I’ve been able to observe it should be interpreted within the framework of *philia*, being understood that it implies a hierarchical representation of the social order where each has a view of where his counterparts are located and where he is located relative to them. So for the fisherman: the fishmonger, i.e. the wholesale dealer, the shipyard owner, etc. The fisherman will for instance accept as a given the fact that the fishmonger has a more prestigious car than he has and when asked to justify why, he will come up with “stories”, like assumptions of heroic feats. At the same time he will request the fishmonger to be the godfather of one of his children and will expect from him an important gift on that occasion.

I gave numerous examples of this in my book entitled *Le prix* (2010) of the operation of *philia* in the economy, not only within traditional societies but also in the current financial world.