

Abstract

The paper aims to deliver a logical and epistemological demonstration for the economics statute inside the social sciences. In my opinion, economics is not a science because it doesn't verify the criteria of scientificity, as this concept is generally accepted. The demonstration is based on sufficiency predicates of cognition and scientificity, respectively. More general, I think no social discipline is a science. Some of them are hermeneutics, some are praxeologies, and some are ethics. Economics seems to be a praxeology.

Keywords: cognition, scientificity, praxeology, sufficiency predicates.

JEL Classification: B40, B50, O10, Z10.

1. Cognition

Cognition (Knowledge) is a state of a cultural subject which has perceptions or representations inter-subjectively validated (i.e., it implies at least two subjects, either cultural or non-cultural⁴, being or not contemporary), about the reality (either objective or subjective⁵). Principled, the possibility of cognition is presumed to verify four sufficiency predicates:

- (CS) *existence of a cognitive subject* (either cultural or non-cultural)
 - in the case of cultural subject: capable of perceptions and representations
 - in the case of non-cultural subject: capable only of perceptions
- (O) *existence of an opinion* of the cognitive subject about reality (usually, about a criterial space-time segmentation – CSTS – but not about the reality as a whole⁶)
 - in the case of cultural subject: the opinion is signaled to other such subjects based on a symbolic code formally appropriated
 - in the case of non-cultural subject: the opinion⁷ is signaled to other such subjects based on a non-symbolic code empirically appropriated
- (TO) *truth of the opinion*
 - in the case of cultural subject: established either by a logical (i.e., non-penalizing) or practical (i.e., penalizing) verification
 - in the case of non-cultural subject: established by a practical (i.e., penalizing) verification
- (GP) *invocation of a grounding principle for opinion*
 - in the case of cultural subject: is a principle emerging from the (a priori) rationality/intelligibility
 - in the case of non-cultural subject: is a principle emerging from the (a posteriori) surviving test

So, formally, the cognition (the knowledge) can be defined as:

$$K = (CS) \wedge (O) \wedge (TO) \wedge (GP)$$

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⁴ The cultural subject is capable to have both perceptions (grasping of the altered exclusively in the presence of the perception source) and representations (grasping of the altered including the absence of the representation source). The perception is a subjective form of a sensation. The sensation is an impress of the natural sense organs of the subject, when the sensation source is an objective reality.

⁵ As it is well known, there is a concept larger than the existent, namely the *done*, which contains, besides the reality (either objective or subjective) the imagery generated by the cultural subjects (see also **Heidegger's** position in the matter).

⁶ However, an opinion about the reality as a whole is not prohibited: so, all the metaphysics (including the religious myths) are opinions about the All.

⁷ Of course, the term opinion is, in this case, of a metaphoric nature.

2. Scientificity

The scientificity is a predicate, i.e. a property, an attribute a something: thing or a relationship among things.

Firstly, the scientificity highlights only the theoretical aspect of the human action (or activity). So, we don't search to identify this predicate neither in the hermeneutic action nor in the practical⁸ one. Since a single type of human action remained, the theoretical type, we can say the scientificity addresses the theoretical action of the human being (the figure 1 shows the abstract structure of the human action). This means the scientificity could be (or is, after the case) a property if and only if it is associated to the human action which is focused on the relationship object-object⁹. In the other two cases of the human action, the scientificity invocation itself (no matter if the property in case is or is not identified) is lack of sense (it is...illegal). This positioning shouldn't be interpreted inside a narrow positivism (neither absolute nor relative) because we haven't ask neither the factual testability of the propositions describing the property in case, nor the validity (both as logics, or as grammaticality) of forming the propositions.

Secondly, the scientificity is a property assignable only to the non-singular phenomena, so it is a contradictory property with the synchronicity one¹⁰. In other words, the repeatability of the phenomena (either periodically or not) is a sine qua non logical condition to ensure that the scientificity examination have sense. This „conditionality” of the signification sphere of the scientificity property from the non-synchronicity of the phenomena is crucial for the next discussion of the paper, because, as we will know, the identity of different temporal or spatial versions of the economic phenomena (more generally, social phenomena) is extremely problematic.

Thirdly, the scientificity is a property assignable only to the phenomena publicly and independently observable by an observer (subject). This two restrictive conditions (public observability and independent observability) are extremely important for a rigorous, complete and consistent (i.e., non-contradictory) treatment of the scientificity parameter. By publicly observable phenomena we will understand those phenomena¹¹ which can be observed, registered and experienced¹² by a least two cultural subjects. The phenomena that are object for a single observer experience are out of the scope of scientificity. For example, a religious experience signifies a singularized feelings, and the same is about an artistic feelings. In the last two cases, as many subjects experience such

⁸ We make a distinction between the practical action and the praxeological one: while the practical action is focused on the subject-subject relationship (for example, the political action, or the religious one), the praxeological action is focused on that action which is aimed to change the state of the world. Of course, there is some semantically overlapping: for example, a change of a world which is made through relationships subject-subject (so, a practical action) is, in the same time, a praxeological action (according to the definition delivered above).

⁹ So, we understand also that the human action related to the relationship object-object develops in so called **von Newmann** conditions, i.e. the theoretical action of the subject doesn't disturbs neither the object directly examined, nor its relationship with other object. The special situation in the quantum mechanics (**Heisenberg's** imprecision relationship) is, probably, an intrinsic property of the relationship object-object; even it is identified only through a measurement experiment, so it cannot be considered as a perturbation of the object by the subject.

¹⁰ The synchronicity is an essential property of those phenomena which happen only once (either in a necessary way or in a contingent one). The uniqueness of the phenomenon withdraws it from the scientific sphere, so it is equally a lack of sense to talk about the scientific (either by accepting, or rejecting it) related to such a singular phenomenon like to talk about the scientific of the phenomenon that do not addresses the relationship object-object.

¹¹ We use the term of phenomenon in a generic signification: things, events, processes, so any change happened inside the world.

¹² Here we do not make the usual distinction between experience and experiment (the distinction takes into account at least two parameters: a) the time type – a laboratory time for experiment, and a clock time for experience; b) the intentionality involved – the absence of intentionality in the case of experience, and the presence of intentionality in the case of experiment).

phenomena, as many distinct phenomena exist, but to put the question of their scientificity is lacked of sense¹³. By independently observable phenomena we will understand those phenomena for which their observation by a subject doesn't constraint their observation by another subject, nor in the sense of provoking the observation, nor in that of changing it. If we will take again an example from the artistic field, then if a perfect empathic capacity of an artist is presumed¹⁴, we cannot yet speak about scientificity, because the observer has experienced the artistic phenomena depending on the artist¹⁵.

Fourthly, the scientificity is a property assignable only to phenomena about which some propositions (in a verbal form¹⁶ and inter-personally communicable) are enacted. The possibility of interpersonal communication (either among contemporary persons, or among non-contemporary ones) is a sufficiency condition for the existence of the scientificity property¹⁷ (as we already said, the emotional feelings – religious or artistic – are not inter-personally communicable so, at least in their original versions, don't put the scientificity question).

So, if we note:

- S_C : the sufficiency predicate named *cognitive*
- S_R : the sufficiency predicate named *non-singular*
- S_{PI} : the sufficiency predicate named *publicly and independently*
- S_P : the sufficiency predicate named *propositionally enactable*

so, the scientificity, as parameter (i.e., as composed predicate) could be described as follows:

$$S = \mathbb{I}(S)_C) \wedge (\mathbb{I}(S)_R) \wedge (\mathbb{I}(S)_{PI}) \wedge (\mathbb{I}(S)_P)$$

Where

• \wedge is the logical constant of conjunction

As a diagram, the scientificity can be represented as follows (figure 1)

¹³ So, we will accept we have phenomena out of the scientific scope whenever we can think a bijective relationship between the set of phenomena in case and the set of subjects which experience those phenomena. And, of course, inversely, if we have a phenomenon which can be associated to at least two subjects who experience them, then that phenomenon will be „decreed” as „suspect” for a scientific analysis. To be noticed that, from a logical point of view, it is not necessary to have a simultaneity (and not even a contemporaneity) of experiencing the same phenomenon by two subjects.

¹⁴ That is, the same feeling of the artist and of the observer of the art outcome is presumed (or, more, the same experience for the two participants is presumed).

¹⁵ Here a very difficult issue connected with the quantum mechanics arises, more exactly, **Heisenberg's** imprecision relation arises. There are some interpretations according which this imprecision in measuring the infinitesimals is generated by the measuring action itself, i.e., by the observer. So, because the observation is not independent from the observer (even the dependence is produced by the observer itself, i.e., we have an auto-dependence) we cannot speak about scientific. However, there are other opinions that assert this imprecision are of objective nature, saving again the scientific of the quantum mechanics (NB: but, how can we factually demonstrate, this objectivity of the imprecision, when we need to make this, for an observation?).

¹⁶ The verbal form of a proposition can be both of the natural language type, and of artificial language (for example, a mathematical or logical languages) type, because in the two cases we have the sufficient components of a language: a) a set of alphabetical signs; b) a set of syntactic rules to form „words” and „propositions”; c) a set of semantic correspondences (between the signs and their references). In the most cases, there is also a set of rules for the pragmatic correspondence (between the signs and the users of them).

¹⁷ In our opinion, **Wittgenstein's** recommendation: do not speak about the things which are not possible speak about, essentially addresses this sufficiency condition of the scientific. The consequence is that we cannot properly speak than about things which can be associated with the property of scientific. In fact, about other things we do not speak but we only enact opinions which are not possible neither for critics nor for revisions, being pure monologues vocally uttered. Of course, is not lacked of interest to examine such „speaks”, i.e. to examine if by enacting these opinions an effect is produced on other persons (contemporary or not). What is sure here is that the opinions are of either hermeneutical or practical nature?

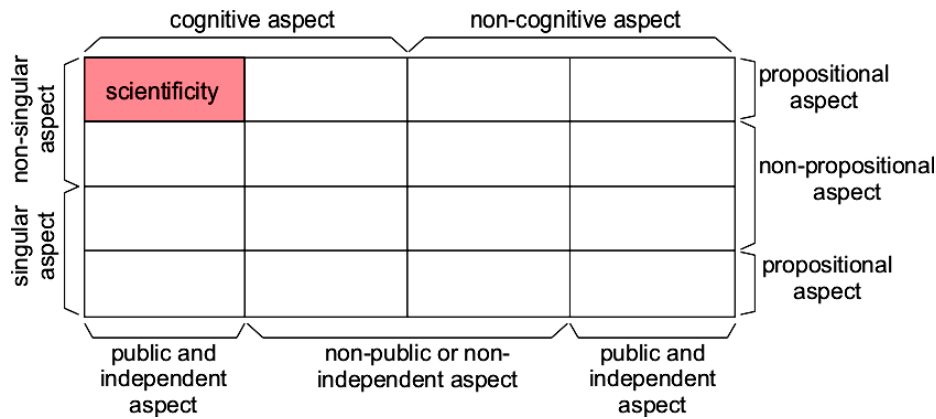


Fig.1. Scientificity implies the conjunction of four sufficiency predicates

In fact, we can have a strong scientificity, or a weak scientificity respectively. Every types of scientificity holds its own features. These features address, on the one part, the cognitive interrogation, and on the other part, the result of the cognitive interrogation.

3. What should be considered the Economics

<i>Relationship Aimed to clarify</i>	<i>Object-object (O-O)</i>	<i>Subject-object (S-O)</i>	<i>Subject-subject (S-S)</i>
<i>Object</i>	Sciences -physics -biology -cosmology -chemistry	Arts -music -painting -carving -literature -architecture	Hermeneutics -critics -politics -history
<i>Subject</i>	Logics -logics -accounting -mathematics -linguistics	Praxeologies -economics -sociology -psychology -theoretical philosophy	Ethics -religion -morals -social philosophy

Fig.2. The nature of Economics