## Comments on "Lucas on the relationship between Theory and Ideology"

by Michel De Vroey

The paper explores the methodological contribution of R. Lucas. It mainly focuses on the link between theory and ideology. The manuscript is interesting, stimulating and very well written. It is also of great relevance and interest to capture the logical foundations of recent macroeconomic theory, especially the new classical ones.

Nevertheless, some comments are in order. I first develop two general points, and I after evoke minor points.

## **General points**

1. The concepts of theory and ideology: the non-interference precept.

I would like to understand more clearly what theory and ideology do represent in M. De Vroey's manuscript.

First, a theory may generally be defined as a set of propositions serving to unify in a logical way some concepts to explain and interpret certain aspects of a phenomenon or of (a)the reality, which we try to report. So, we agree with the author on the fact that a theory differs from a model, which is representation of one part of a theory, and thereby that Lucas' view (a theory and a model are the same thing), may be discussed. For instance, the Arrow-Debreu-McKenzie model to which Lucas (implicitly) refers is not a theory, but a representation of the role of prices in general equilibrium theory (for existence and optimality). It does not succeed in representing the convergence of market prices toward their equilibrium values through the *law* of supply and demand (see notably Hildenbrand), unless under strong assumptions on the properties of excess demand functions.

In the paper, the non-interference precept concerns the fact ideological viewpoints should not influence theory. A theory contains assumptions. It seems that when building a model a theorist has a vision of the object s/he wants to represent. The vision exists before the assumptions are stated. Does the fact to consider, for instance, an at once monetary or real economy recover from the ideology or from the preliminary vision on the functioning of the market? I think that the difference/link between *ideology* and *vision* should be more pointed throughout the paper, and especially within Section 2.

One question arises when dealing with ideology in Lucas works. New classical economy is based on a market clearing assumption. Does the new classical models à la Lucas be ideological because they implicitly assume something that has not been (yet) demonstrated (an adjustment process for market prices via (a belief in) the law of supply and demand toward their equilibrium values)? In other words, does Lucas's free-market defending attitude stems either from positive or from normative viewpoints?

## 2. The methodology versus the epistemology.

I'm not sure whether the term *methodology* used in the paper is appropriate. I explain why. The methodology may be defined as the study of a suite of thoughts or actions managed by a preliminary thought. I am not certain whether the methodology (of Lucas) constitutes the bottom of the story of the manuscript. It seems to me that it is rather about *epistemology*. This term mainly concerns the process by which the presuppositions of the science are revealed. So, M. De Vroey provides a meta-theoretical exercise on Lucas. Therefore, the epistemology tries hard to loosen the implicit, and not expressed but underlying philosophy in the scientific thought.

In « De l'explication dans les sciences », (1921), Meyerson lists three of such presuppositions. At first, the scholar does not content himself with the description of the facts he tries to give the explanation (find the cause beyond the law). Then, it is necessary to determine the criterion which gives him satisfaction. What would be the criterion for Lucas? Finally, the scientist grows in the objective reality of what he puts as existing on the phenomena. On this last point, I think that a good reference would be Neurath (1935) in his "Pseudorationalisme de la falsification". According to him, it is a non sense to confront a model to real facts or reality. Instead, two types of models must be confronted: the theoretical model and the empirical model (which is not necessarily connected with reality). If we admit this, does the tension of Lucas - pointed by De Vroey - between Walrasian and Marshallian universes still hold?

So, unless I am wrong, I think this is the type of exercise (an epistemological one) that is performed in this paper.

## **Minor points**

- 1. Page 3: (e) "Macroeconomic models are of not interest if they fail to reach policy conclusions": does this view apply to microeconomic models? If not, why?
- 2. Page 5 (end)-page 6 (beginning): does the "law" of supply and demand enter into this assertion?
- 3. Page 11, point 2, lines 3-5: does ideology exists in mathematics? If not, the sentence is clear. In the opposite case, what could we conclude?
- 4. Page 14: the paper "Expectations and the neutrality of money" (1972) is cited throughout the text, and thereby should be quoted in the Reference list.
- 5. Page 14, second paragraph: I think that the author should precise that the inefficiency of monetary policy stands because the money supply depend on a random variable that neither the private agents nor the public sector can expect. Thus, the equilibrium output and thereby the natural rate of unemployment depends critically on this random variable (see notably the model of Sargent-Wallace (1975)).