

# The Crisis in Economic Theory. Shifting to a new paradigm in Economics?

Angela Dionisio

Centre for Philosophy of Science of the University of Lisbon

Professor at Universidade Europeia

International Conference

**Philosophy  
of Science** in the

**21<sup>st</sup> Century – Challenges  
and Tasks**



# INTRODUCTION

systemic failure of the economics profession



Tucker Nichols

[http://opinionator.blogs.nytimes.com/2013/08/24/what-is-economics-good-for/?\\_r=0](http://opinionator.blogs.nytimes.com/2013/08/24/what-is-economics-good-for/?_r=0)

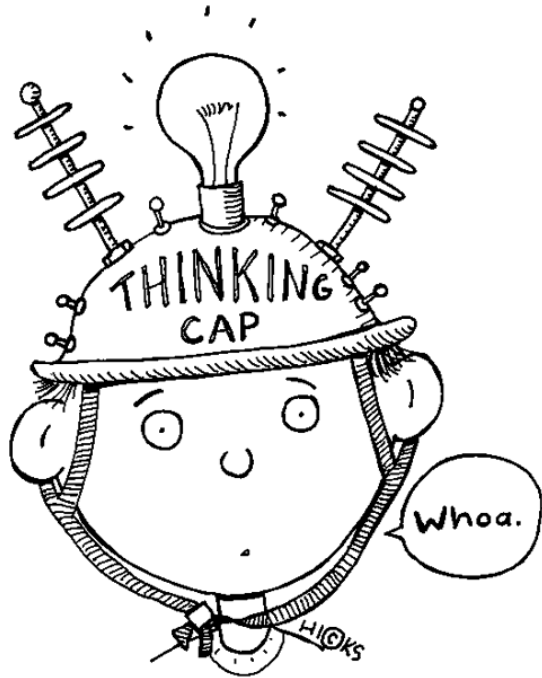
Economists have failed to predict the financial and economic crisis started in 2007-8.

They have failed to find a solution and, even worse, they may have contributed to it.

This crisis represents and reflects a crisis of knowledge and a failure of the economic theory itself.

# INTRODUCTION

The “good news” is that this crisis provide a perfect justification for fundamental rethinking about economy and society. It is an opportunity to move forward, beyond mainstream thinking.



<http://craigssenseofwonder.wordpress.com/2013/02/14/critical-thinking-common-informal-fallacies-part-2/>

Mainstream economics and the “neoclassical benchmark model” is facing growing criticism because it has failed to bridge formalistic-axiomatic deductivist models to the complexity of the real world.

Is there a new economic thinking now emerging? Is there a shift in the economic paradigm? This paper will address this issue by reviewing the Kuhnian approach to this fundamental reflection in the economic science.

# FAILURE IN ECONOMIC THEORY

*We believe that economics has been trapped in a sub-optimal equilibrium in which much of its research efforts are not directed towards the most prevalent needs of society.*

Colander (2009)

Several economists are questioning many of the fundamental theoretical and empirical assumptions of the mainstream economic models.

This failure of economic theory has deep methodological roots:

- ⊕ Highly unrealistic restrictions
- ⊕ Many economic models are built upon the twin assumptions of ‘rational expectations’ and the “representative agent”. The representative agent’ hypotheses represents a strong form of conceptual reductionism.

# Meet the “representative agent”



What does the representative agent represent? And Whom?

Economists construct representative agents in order to deal with the complicated issue of aggregation. They are typically concerned with the aggregate results of individual choices ...

# FAILURE IN ECONOMIC THEORY

## SOME METHODOLOGICAL PROBLEMS

**Positive versus normative-** (*conflict between facts and values*). *Economics is useful because it guides decision-makers and policy makers ...*

**Reasons versus causes.** Much of economic theories that discuss individual choices take individuals as acting for reasons. Economists offer both causal explanations for why individuals choose as they do and accounts of the reasons for their choices. \*

**Abstraction, idealization, and ceteris paribus.** How much simplification, idealization, abstraction is acceptable?

The core problem is not just that economics uses unrealistic simplifying assumptions: all science do that. KAY (2011) argues however that, if those models are to be used, we have to be willing to bring back the eliminated factors... And to communicate the limitations and potential misuses of their models

(Hausman, 2013)

# Ideology and mathematics

Models nowadays have to be rigorous and consistent to be accepted in the economic literature. These are features of a deductive approach, which draws conclusions from a group of axioms – and whose empirical relevance depends entirely on the universal validity of the axioms.

## Strong mathematics and poor science

Economic analysis is relying too much on mathematical models. What is the proper role for mathematics to play? The conclusions drawn from such economic-mathematical models should not always be regarded as applicable to the real world. Woodford (2012) argues that an assessment of the realism of the assumptions made in the model is crucial, in the sense that the realism of what the model assumes about *certain aspects of the world* should be put in test *with what* that the model intends to represent.

## REVIEWING KHUN APPROACH

A significant number of economists attempted to explain the economic knowledge development by following Kuhn's approach\*

Whenever the established paradigm faces a scientific crisis, which occurs as a result of accumulation of **anomalies or unsolved scientific problems**, the conditions are set for a scientific revolution. Gradually, a new paradigm becomes dominant.

According to Khun, the revolutionary period is characterized by “extraordinary science” which substitutes “normal science”. Normal economic science is undoubtedly represented by the neoclassical paradigm.

Could alternative approaches replace the dominant mainstream paradigm?  
Is economics about to experience a new scientific revolution?



# IS THERE A PARADIGM SHIFT EMERGING?

Some **conditions are now set for the emerging of scientific revolution** in the economic science. The “crisis” is a necessary but insufficient condition. A further condition must be met: the existence of an alternative explanation, a new scientific paradigm...

Alternative narratives and ways of thinking are now emerging.\*

The Institute for New Economic Thinking (INET), founded in 2009, holds the professional responsibility to rethink the economic methods and models and eventually will support the emergence of new paradigms in economic science.

Several influential economists like the awarded Nobel Prize , Stiglitz claim for a new paradigm.

# NEW ECONOMIC THINKING IS NOW EMERGING ?

Alternative views and competing narratives are emerging

**Post-Autistic Economics (PAE)** was born through the work of the University of Paris. Students in France and in the USA are demanding a new theory of knowledge.

Fullbrook (2013) and his **pluralistic movement** recognizes that the ontology of much economic phenomena does not fit the requirements of mathematical deductivism. Interested in real-world agent preferences and behavior, “rational” or not . Rejects methodological individualism \*

Colander (2011) argues that *the neoclassical era in economics has ended and has been replaced by an unnamed era*: it might be called ‘the **complexity era**.’ The increasing complexity in the world and in economics demands for new approaches including Evolutionary game theory, Ecological economics; Behavioral economics, complexity theory, agent-based computational economic (ACE), ...

# ECONOMICS IN DENIAL

WAITING FOR NORMAL TIMES ...



Many reputed economists still believe that the basic macro-economic models have fared well in “normal” times and that it is only the exceptional circumstances of a crisis that have produced difficulties

*too small to matter*

Some economists argue that “exceptions and anomalies to the efficient market hypothesis have been discovered, but for the purposes of macroeconomic analyses and forecasts they are too small to matter”

*“Se não receio o erro é porque estou sempre disposto a corrigi-lo”*

*If I don't fear the error, it simply is because I'm always willing to amend it.*

Bento Jesus Caraça

Portuguese mathematician, professor and politician: 1901- 1948