



Peter MIHÁLYI



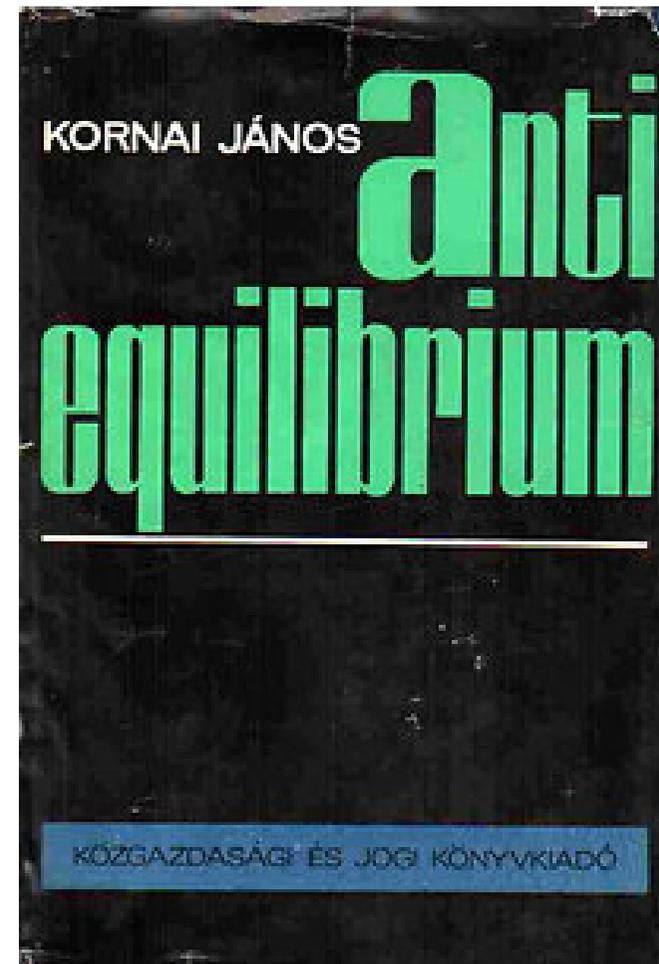
János Kornai's *Anti-Equilibrium*, a
harbinger of evolutionary
economics

Conference to Celebrate János Kornai's 85th Birthday,
Corvinus University of Budapest, January 18, 2013

1967 - 1971

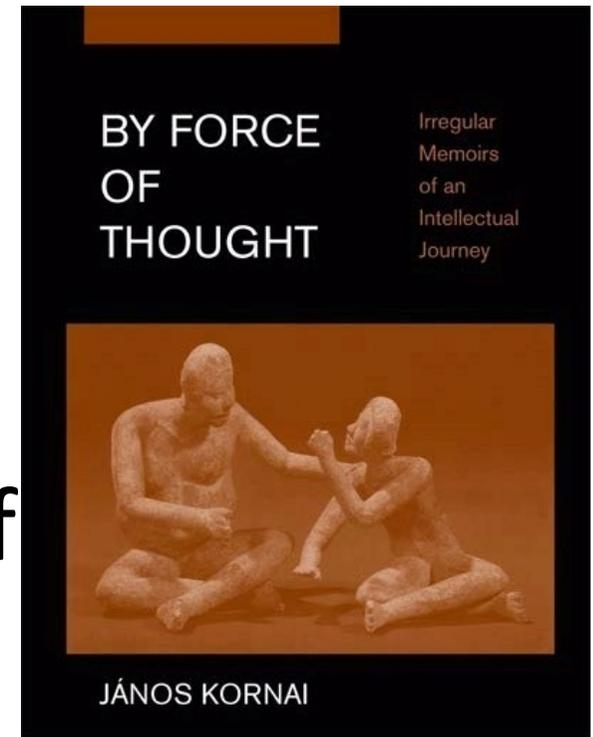


(1965)



A quote from the memoirs (By Force of Thought)

„The *Anti-Equilibrium* is not just one item on my publication list. This was the most ambitious enterprise of my entire research carrier.”



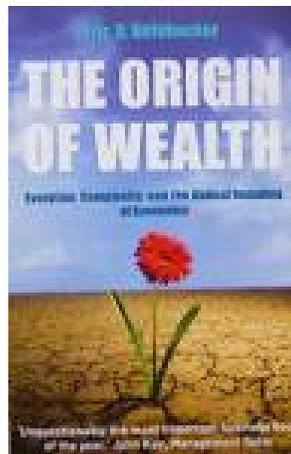
Traditional (or mainstream) economics doesn't work...

On the very last page of AE we find: „Now is the time to begin the synthesis on bases that are broader than general equilibrium theory and more in agreements with the facts.”

More recent quotes on the relevance of mainstream theory:

1. „Anybody looking at these models would say they can't provide a good description of the modern world.” (J. Stiglitz mid-90s)
2. „We really don't know how the economy works... The old models just are not working.” (A. Greenspan – early 2000s)

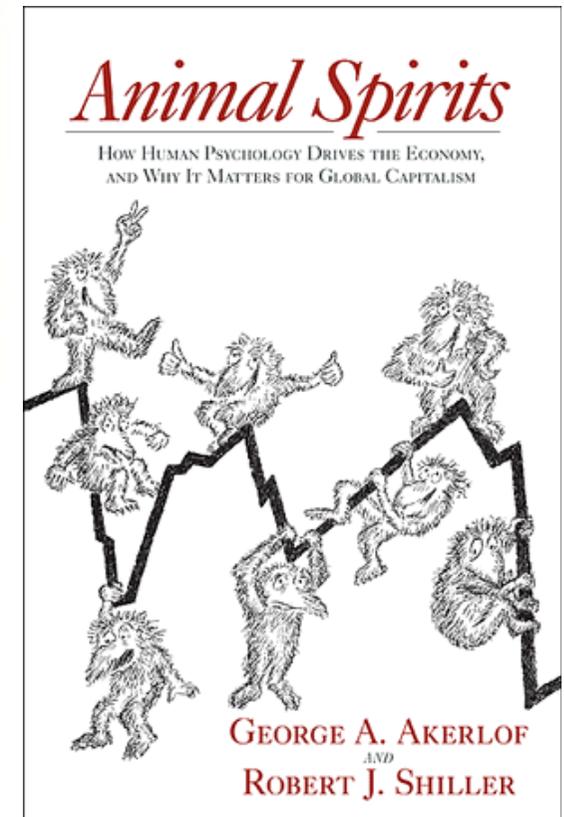
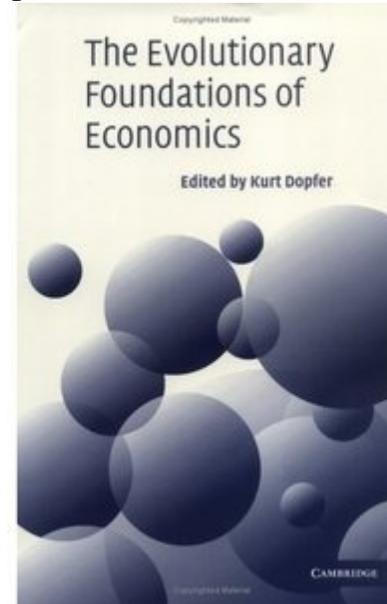
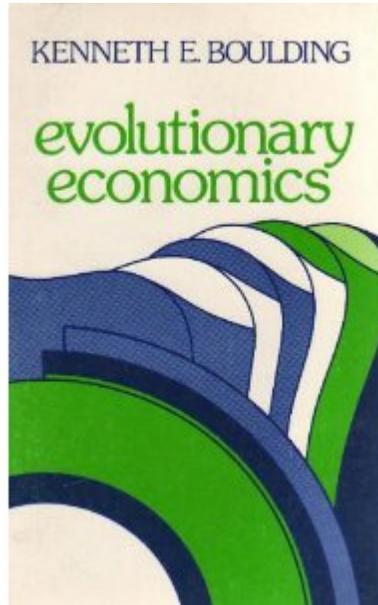
Both quotes
are from here:



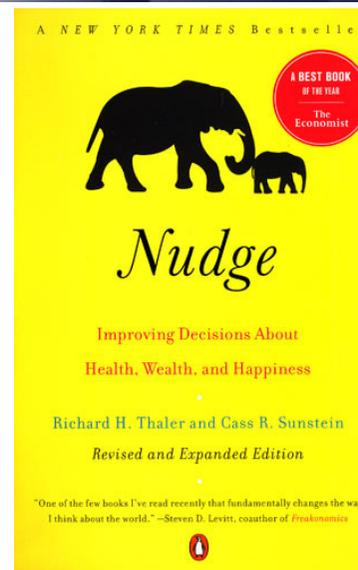
Author: Eric B. Beinhocker (2006)

Sub-title: *Evolution, Complexity and the Radical Remaking of Economics.*

Evolutionary economics



Further names: Douglass North, Sidney G. Winter, Geoffrey M. Hodgson, etc.



Take-home message of this talk

The most important contribution of *Anti-Equilibrium* is the idea that biology should replace physics as the reference model for economic theory.

AE Ch. 14: Adaptation and Selection

„In biology adaptation is a notion of having fundamental importance. Living beings adapt to their environment and the changes therein. Nature is not merciful; if the living being does not adapt, it will perish. (...) We consider the biological phenomena only as a point of departure. Reasoning must be continued further along economic lines, analyzing special features which are characteristic of the adaptation taking place in economic systems.”



The 12 assumptions of GE theory*

No.	Criticism	Building blocks of a new paradigm
1,2,3, 4,9	Static or stationary character (organizations, producers, consumers, products and preference ordering)	The economy is an adaptive system. New products appear. This process is unpredictable = innovation → growth
12	Lack of uncertainty	
7,8	Utility and profit maximalization („original sins”)	Institutions are complex systems (e.g. firms, government) with conflicting internal interests.
6	Convexity of the production set.	Constant return to scale is an exception and <i>not</i> the main rule.

Decision-making*

Recurring and Comparable Decisions



Non-Recurring and Non-Comparable Decisions



* AE, Section 10.4

The same idea has been „rediscovered” by Kahneman and Tversky

System 1

Intuition. Fast, automatic. and unconscious.

In AE: Primary adaptation or vegetative control.

System 2

Reasoning. Slow and volatile, subject to conscious judgments and attitudes.

System 2 is evolutionarily recent and specific to humans.

In AE: Secondary adaptation.

The preponderant experience of János Kornai's generation (Ch. 19)

Socialism

- Shortage goods, poor quality, queues
- **Suction**
- **Sellers' market**
- Labor shortage

Capitalism

- Underutilized production capacities
- **Pressure**
- **Buyers' market**
- Unemployment



Symmetry (the equal strength of adaptive forces) is both the starting point and the conclusion of the GE theory

Since the AE, „other” schools have come forward with arguments close or identical with Kornai’s propositions:

1. At the micro-level: „The concept of **loss aversion** is certainly the most significant contribution of psychology to behavioral economics.” (D. Kahneman: *Thinking, Fast and Slow*, 2011, p. 300.)

1. At the macro-level: Oligopoly, instead of perfect competition. „Too big, to fail.”

Loss aversion

Kahneman showed that loss aversion is the explanation of the stability of the status quo.

This is the same mechanism, which Kornai described in AE (and many times later) explaining the **inherent cohesion forces** of Socialism and Capitalism, respectively.

→ There is no such thing as „third way”, or optimal mixing of the two systems.

„Socialist” shelf



„Capitalist” shelf

Increasing return to scale, the inherent force which undermines the equilibrium

In AE, this issue is treated in Section 14.6 („Quantum economics”)

- Threshold of sensation
- Indivisibility (← standard and fundamental decisions)
- Increasing returns

→ Concentration, competition takes place among oligopolists, markets are never „cleared”.



In developed market economies, markets are typically in the state of surplus.



Hence, the formulation „**surplus economy**”, the key term of Kornai’s latest seminal essay.*

* At present available in Hungarian and Chinese only.

An important illustration from AE*

Index of capacity utilization in U.S. manufacturing			
Year	Preferred rate	Actual Rate of Operation in the Month of December	
1954		84	
1955		92	
1956		86	
1957		76	
1958		80	
1959		85	
1960		77	
1961		83	
1962	92	83	
1963		85	
1964		88	
1965		90	
1966	93	88	
1967		86	
1968		85	
1969		83	

*Table 19.4

Thank you for your attention!



Summary

The *Anti-Equilibrium* (AE) was well ahead of its own time in emphasizing that

- i.economics should use biology, rather than physics, as its methodological underpinning;
- ii.competition and co-operation are equally important building stones of any economy due the continuously growing complexity of modern societies;
- iii.while it is obviously true that people react to incentives, the underlying facts are not only price and quantity information, as it is assumed in standard models;
- iv.evolutionary logic requires different type of decision-making in simple, routine matters, as opposed to large and important decisions (e.g. career decisions, multibillion dollar investment projects);

Summary (cont.)

- v. the most important production processes are non-linear, increasing returns to scale are the rule, rather than the exception in modern capitalist economies;
- vi. there is no such thing as general equilibrium; in modern societies, the goods and services are either in shortage (Socialism) or in the state of oversupply (Capitalism); it is either buyers' market or sellers' market;
- vii. in market economies, most of the time, most of the producers have significant excess capacities; excess capacities are the main drivers of innovation;
- viii. the socialist system is characterized by shortages on the goods and services markets, in the capitalist system there is a persistent shortage of working places.
- ix. there is no such thing as perfect competition under capitalism, most markets are oligopolistic, this asymmetry, rather than market equilibrium is the driving force of capitalist economies.

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