Perspectives and Reflections on the 30<sup>th</sup> Anniversary of An Evolutionary Theory of Economic Change

ACAC 2012 Plenary Session

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## Important but Different Impact

## Evolutionary Theory of Economic Change 1982

- bounded rationality/ sub-optimization/ local search/
- evolution determined by population behavior
- formal simulations/ no empirical work

#### Subsequent Scholarship for Evolutionary Economics

- industry life cycle: Klepper et al.
- incumbents & entrants: Henderson; Christensen
- technological trajectory:
   Dosi; Freeman; Pavitt
- national innovation systems:
   Mowery; Rosenberg

Source: Nelson & Winter, 2002, Journal of Economic Perspectives

## Important but Different Impact

# Evolutionary Theory of Economic Change 1982

- bounded rationality/ sub-optimization/ local search/
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   no empirical work

#### Subsequent Scholarship for Evolutionary Economics

explicit optimization

- evolution determined by constraints on choice / focus on nature of constraint
- empirical work/ testable hypotheses

Market Rebels: How Activists Make or Break Radical Innovations Hayagreeva Rao (Princeton, 2009)

**Hot Causes**: Arouse emotion; engage core community; individual behavior

**Cool Mobilization**: Formal organization; engage broader audience; informal networks

1980	Founding co-editors <u>Journal of Economic Behavior</u> and <u>Organization</u> (Day & Winter)
1983	Yale survey of industrial R&D (Levin, Klevorick, Nelson, Winter) <u>Brookings Papers on Economic Activity</u> 1987
1987	Conference on 50 <sup>th</sup> anniversary of Coase article (Williamson & Winter) leads to <u>Nature of the Firm</u> 1991
1988	National Innovation Project studies 15 countries (Nelson, et al.) leads to <u>National Innovation Systems</u> 1993

1988	Consortium for Cooperation and Competitiveness (CCC) founded; leads to first doctoral consortium 1994 at CMU
1994	Carnegie Mellon survey of industrial R&D (Cohen, Nelson, Walsh) Management Science 2002
1994	Project: Systems Analysis of Economic and Technologic Dynamics Laxengburg, Austria (Dosi, Nelson, Winter) leads to Dynamics of Organizational Capabilities 2000

**Science**: - A collected body of demonstrated truths

- Observed facts collegiated under general laws

- Trustworthy methods for the discovery of new truths

Oxford English Dictionary

**Science**: Builds and organizes knowledge in the form of testable

explanations and predictions

**Wikipedia** 

**Brahe**: collected data on planetary motion

**Kepler**: recognized pattern for planetary motion

**Newton**: determined mechanism for planetary motion

#### **Focal Point:**

A distinctive item that becomes the default for mutual though uncoordinated choice

Thomas Schelling Strategy of Conflict

