COMPLEXITY & DEVELOPMENT 2.0: ENABLING ADAPTATION IS THE PROBLEM

Yuen Yuen Ang
University of Michigan
Solutions When the Solution is the Problem: Arraying the Disarray in Development

Lant Pritchett Michael Woolcock

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Abstract

An analytic framework for tracing three waves of efforts to provide key public services in developing countries is provided. Persistent (though not universal) failure has been the product of (a) the imperatives of large bureaucracies to discount decisions that are inherently both discretionary and transaction-intensive (and thus less able to be codified
CHICKEN-AND-EGG PROBLEM OF DEVELOPMENT

Good governance/strong institutions

Economic Wealth
MY ARGUMENT

1) First step of development: harness “weak/wrong/bad” institutions to build markets

2) Create conducive conditions for adaptation: “directed improvisation”
1) First step of development: harness “weak/wrong/bad” institutions to build markets

2) Create conducive conditions for adaptation: “directed improvisation” (see circulated Chapter 2)
Complexity
The new rage in development
Seven policy implications, including:

- Resist fatalism
- Promote innovation
- Embrace experimentation
**EXISTING APPROACH**
Complexity & Development 1.0

- Points out that development problems are complex, with no cookie-cutter solutions
- Prescribes adaptation (innovation, experimentation, feedbacks, etc.) as solution to problems

**MY APPROACH**
Complexity & Development 2.0

- Points out that in the first place, enabling adaptation *is* the problem
- Explains sources of adaptive capacity: Why are some organizations adaptable but not others?
What is complexity?

Problems of facilitating adaptation

Application: Why is China adaptable?
Complex systems
Complex adaptive systems
Complexity

“nonlinear, dynamic, adaptive systems”
DEFINITION OF COMPLEX SYSTEMS

- “Complex systems comprise many moving parts that interact with one another and change together, triggering outcomes that cannot be precisely controlled or predicted.”

~ How China Escaped the Poverty Trap, pp. 10 ~
**COMPLICATED**

- Many separate parts that do not adapt to one another or environment

**COMPLEX**

- Many moving parts that adapt to one another and environment

**PROPERTIES**

- Risk (probability)

**INDETERMINANCY**

- Uncertainty (possibility)

**PUBLIC POLICY**

- Plan and control

- Influence

Reference: *How China Escaped the Poverty Trap*, Table 2.1, pp. 52
Influence

What can public managers do to facilitate adaptation in complex environments?
What is complexity?

Problems of facilitating adaptation

Application: Why is China adaptable?
Adaptation
Holland defines adaptation as:

“the process where an organism fits itself to the environment”
Two Mechanisms of Adaptation

**VARIATION**
Generate alternatives

**SELECTION**
Select from available alternatives and form new combinations
Two Problems of Adaptation

**VARIATION**
Balance variety and uniformity: neither too few nor too many alternatives

**SELECTION**
Clearly define and reward success (very hard to achieve in public organizations)
What is complexity?

Problems of facilitating adaptation

Application: Why is China unusually adaptable?
Use of policy experiments

“Adaptive governance”

“Adaptive informal institutions”
But what explains China’s ability to adapt?

- How China dealt with problems of adaptation
- Entire package of strategies: “directed improvisation”
- Central government provided guidance and incentives for local governments to improvise solutions to local problems
VARIATION

CG wants LG to exercise flexibility when implementing central mandates. Too little flexibility leads to rigidity; too much flexibility leads to chaos.
How to balance variety and uniformity?
My answer (Chapter 3 of book): By issuing commands in varying degrees of clarity.
“National policies emphasize broad principles rather than specific instructions.”

(Rawski & Brandt, China’s Great Economic Transformation)
“a grand but marvelously vague expression”

~ On Deng’s famous slogan of “socialism with Chinese characteristics” ~
But are political commands in China always broad and vague?

In fact, they are not.
THREE VARIETIES OF COMMANDS

Example: Land quotas
Clearly forbids a particular action

Guidelines on commune & brigade enterprises (1979)
Deliberately unclear, permits bounded experimentation

Guidelines on rural work (1984)
Clearly sanctions a particular action
FIGURE 3.3  Change in industrial collective enterprises, 1980–2000. China
What is complexity?

Problems of adaptation

Application: Why is China adaptable?

Conclusions
Adaptation is not the solution to complex problems of development—enabling adaptation is the problem.

Discussed two problems of adaptation today: variation + selection

Why is China unusually adaptable? Not culture or authoritarianism. But the way it dealt with problems of adaptation.

One solution: Flexible system of commands; strategic use of ambiguity
APPLICATIONS IN INTERNATIONAL DEVELOPMENT

“The second takeaway is that we need to think more carefully about the source of adaptability. What is the nature of the contestation process around the setting of the goals?... How do we stimulate a dynamic implementation process? How do we empower local actors to experiment and innovate?... This analytical lens has enormous potential for thinking through the adaptive challenge, whether at the national level, subnational level or sectoral level.”

~ Review of How China Escaped the Poverty Trap, by Yongmei Zhou (World Bank) ~
Thank You!
Welcome your questions & reactions at yuenang@umich.edu.