# Coherence and Punishment

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**NAST Roundtable Discussion on**

**Behavioral Economics**

# The Puzzle of Non-Cooperation

- **NS Gelia Castillo: "Why are Filipinos unable to cooperate like our Asian neighbors?"**

- **Cooperation as a puzzle: In Economics and other Social Sciences, agent cooperating in social dilemma games**

- **Social Dilemma Games – where agent self-seeking produce inferior social outcomes**

# Coherence and Societies

- Coherence is the foundation of modern civilization.

- Coherent societies are able to extract the social optima out of Collection Action Problems (CAP).

- Coherent societies align member behavior towards a social end. Incoherent ones eat the dust of coherent ones

# Coherence and Public Goods

- Coherent societies are able to solve the public goods provision problem.
  *Ex:* The Three Gorges Dam in PRC

- Incoherent ones produce mostly public failures (also called government failures).
  *Ex:* the NAIA T3 in the Philippines.

# Coherent and Incoherent Societies

A. Two types of society in Autonomy:

1. Autonomously coherent: societies where cooperation is a dominant strategy and punishment is currently secondary . Ex. Japan, Denmark PRC

2. Autonomously incoherent societies: societies where cooperation is not a dominant strategy and cooperation is attained only by a system of punishment.

B.

B. Autonomously coherent societies emerge from a long history of Darwinian selection accompanied by robust punishment.

*Ex:* Denmark, *Skarpretter,* The Little Match Girl

# Coherence and the State

- An autonomously incoherent societies can be rendered *arti-factually coherent* by a strong  state.

- Coherence can be harnessed both for good and for bad.

  - For bad: Germany and Japan in WWII;
    For good: Three Gorges Dam PRC

# Coherence and Public Goods
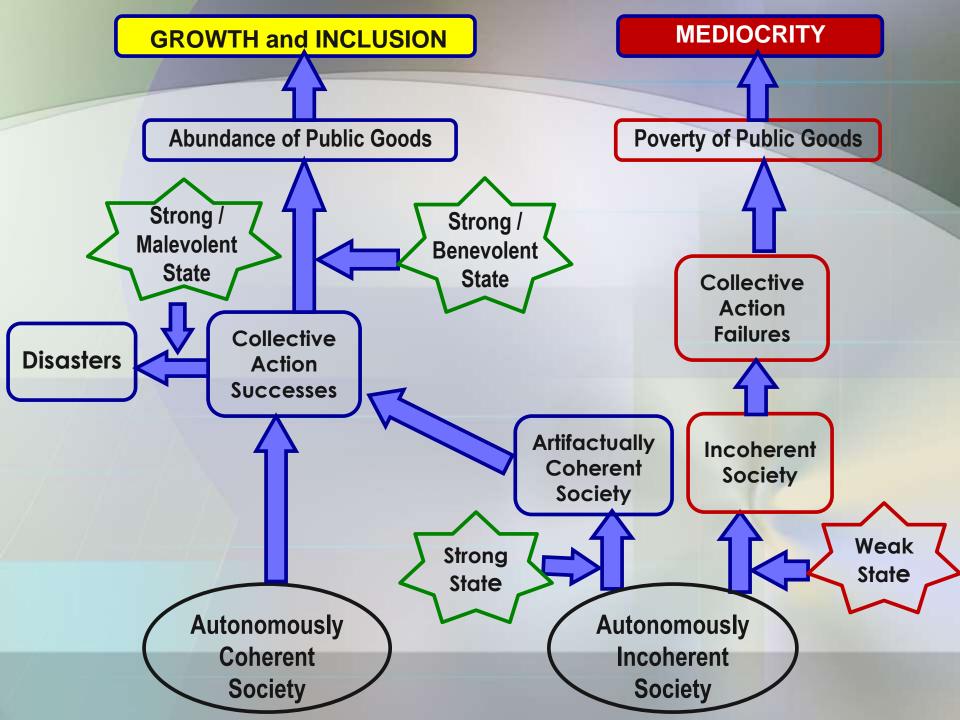
Public Goods: Soft (Rules) or Hard (Roads)

- Public Goods are Collective Action Problems
- Coherent societies deliver abundant public goods
- Poverty of Public Goods defines the Philippines  - The Philippine  society is incoherent.
- Poverty of Public Goods underlies bad economic performance.
- How do they all hang together?

# Coherence and Social Progress

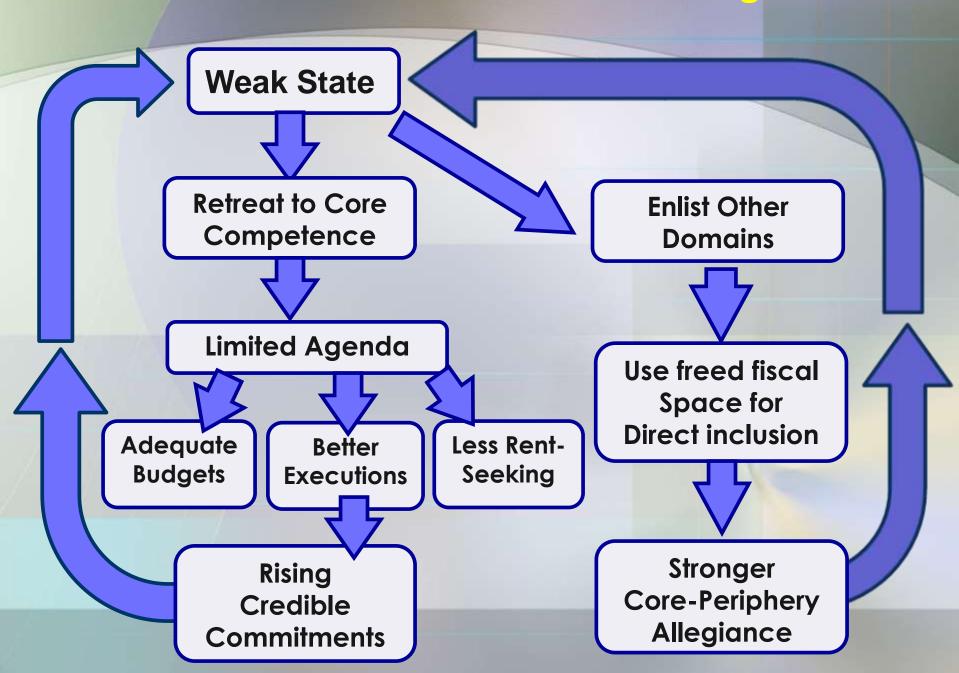How do all these hang together?

Two Pathways:

Towards Growth and Inclusion
Towards Economic Mediocrity

# Breakout: Positive Feedback

- **From a weak state**
- **Return to Core Competence**
- **Limited agenda/Harnessing other domains**
- **Improved performance**
- **Credible commitment**
- **Stronger state**
- **Greater arti-factual coherence**

# A Positive Feedback: Towards a Stronger State

**Weak State**

**Retreat to Core Competence**

**Limited Agenda**

**Adequate Budgets**

**Better Executions**

**Less Rent-Seeking**

**Rising Credible Commitments**

**Enlist Other Domains**

**Use freed fiscal Space for Direct inclusion**

**Stronger Core-Periphery Allegiance**

## Payoff Matrix: a DS PDG

Ambo and Berto are fishermen.

| Actors/Action | | Berto | |
|---|---|---|---|
| | | N | D |
| Ambo | N | 10, 10 | 2, 12 |
| | D | 12, 2 | 3, 3 |

N = use nets; D = use dynamites

# The State and Collective Action

- **When society is autonomously coherent, collective action problems are readily solved**
- **When the state is autonomously incoherent it will need help to solve CPAs**

# The Fishing Game: A Collective Action Problem

- A Collective Action Failure: NE is (*D*,*D*) giving (3,3)

- Let "5" be the poverty line. Both fall below the poverty line 5; but a feasible outcome

- (*C*,*C*) gives (10,10), the inclusive Social Optimum

# The Fishing Game: A Collective Action Problem

## Statutory Intervention: **Strong State**

- $S = (p, c, f)$ where:

    $p$ is statutory penalty

    $c$ is flat tax

    $f$ is probability of being caught and punished

- $S = (p, c, f)$ is soft public good

- Consider $p = 5, \quad c = 2, \quad f = 1.$

# The Fishing Game: A Collective Action Problem

Statutory Intervention: **Strong State**

$S = (5,2,1)$: Transformed Game

| Actors/Action | | Berto | |
|---|---|---|---|
| | | **N** | **D** |
| **Ambo** | **N** | 8, 8 | 0, 5 |
| | **D** | 5, 0 | -4, -4 |

- ($C$, $C$) is now NE; social optimum attained
- Coherence is attained with strong punishment.

# The Fishing Game: A Collective Action Problem

Statutory Intervention:  **Weak State**

$S' = (5, 2, 0.2)$: enforcement weakened to $f = 0.2$ from $f = 1.0$

Payoff Table with $S'$

| Actors/Action | | Berto | |
|---|---|---|---|
| | | N | D |
| Ambo | N | 8, 8 | 0, 9 |
| | D | 9, 0 | 0, 0 |

# The Fishing Game: A Collective Action Problem

## Statutory Intervention:  **Weak State**

- (*D,D*) still NE; delivers (0,0); raise depth and intensity of poverty. *Weak punishment*  does not change  behavior!

- Players better off without state intervention *(laissez faire)*!

- Whose  interests do the rules serve?

*The state that cannot punish cannot engender qualitative improvement.*

# Thank You
# MABUHAY!