

# Engaging in Systems Change: Complexity and Collaborative Leadership



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Brenda Zimmerman, PhD

Director Health Industry Management Program

Schulich School of Business

York University





**Time is too short and  
things are too bad  
for pessimism.**

**Dee Hock**



## *Despair to Intention*

- How can I make a difference in this complex system?

“Hope is not the conviction that something will turn out well, but the certainty that something makes sense, regardless of how it turns out.”

Valclav Havel



# *Agenda*

- Differentiating simple, complicated and complex
- Role of Inquiry in complex issues
- Resilience in social innovation
- Ecocycle - Creative Destruction
- Transition traps



***Simple***

*Baking a Cake*

***Complicated***

*A Rocket to the Moon*

***Complex***

*Raising a Child*

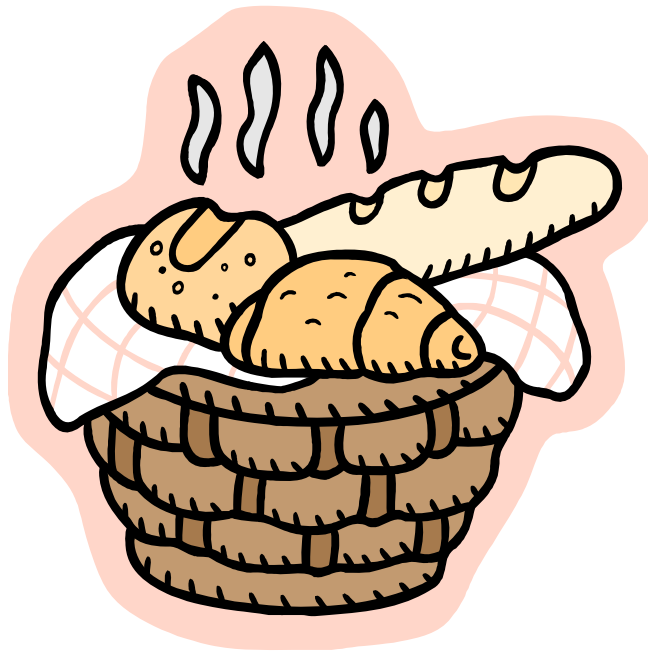


# Complicated Complex

## Simple

*Baking a cake    A Rocket to the Moon    Raising a Child*

- zThe recipe is essential
- z**Recipes are tested to assure replicability of later efforts**
- z**No particular expertise; knowing how to cook increases success**
- zRecipe notes the quantity and nature of "parts" needed
- z**Recipes produce standard products**
- z**KNOWN**



# Simple

## *Following a Recipe*

- zThe recipe is essential

- zRecipes are tested to assure replicability of later efforts

- zNo particular expertise; knowing how to cook increases success

- zRecipes produce standard products

- zCertainty of same results every time

# Complicated

## *Raising a Child*

- Formulae are critical and necessary

- Sending one rocket increases assurance that next will be ok

- High level of expertise in many specialized fields + coordination

- Separate into parts and then coordinate

- Rockets similar in critical ways

- **KNOWABLE**

# Complex

## *A Rocket to the Moon*



# Simple

*Following a Recipe*

- The recipe is essential
- Recipes are tested to assure replicability of later efforts
- No particular confidence in knowing how to do it increases success
- Recipes produce standard products
- Certainty of same results every time

# Complicated

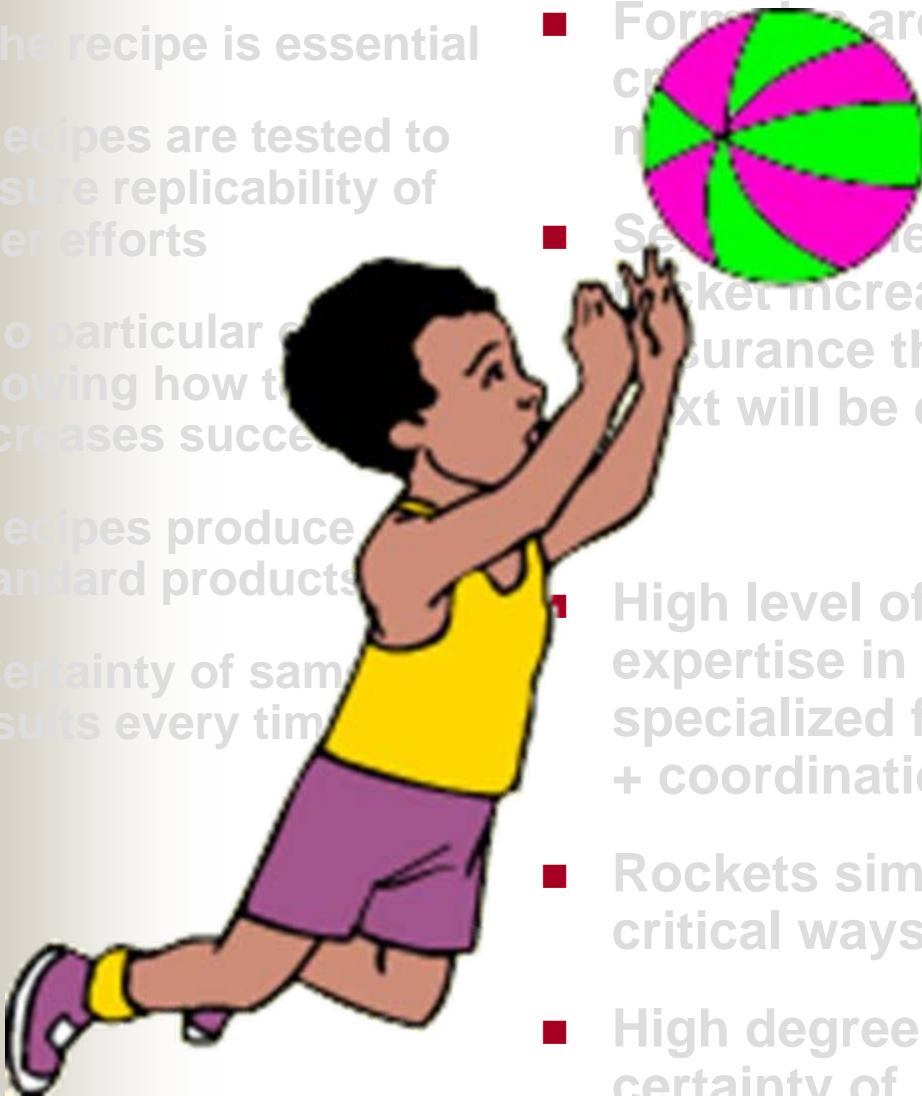
*A Rocket to the Moon*

*Raising a Child*

- Formulae are complex and numerous
- Sequence of steps increases assurance that next will be ok
- High level of expertise in many specialized fields + coordination
- Rockets similar in critical ways
- High degree of certainty of

# Complex

- Formulae have only a limited application
- Raising one child gives no assurance of success with the next
- Expertise can help but is not sufficient; *relationships are key*
- Can't separate parts from the whole
- Every child is unique
- **UNKNOWNABLE**







## *Simple*

### *Baking a Cake*

- The recipe is essential
- Recipes are tested to assure replicability of later efforts
- No particular expertise; knowing how to cook increases success
- Recipes produce standard products
- Certainty of same results every time
- KNOWN

## *Complicated*

### *Rocket to the Moon*

- Formulae are critical and necessary
- Sending one rocket increases assurance that next will be ok
- High level of expertise in many specialized fields + coordination
- Rockets similar in critical ways
- High degree of certainty of outcome
- KNOWABLE

## *Complex*

### *Raising a Child*

- Formulae have only a limited application
- Raising one child gives no assurance of success with the next
- Expertise can help but is not sufficient; *relationships are key*
- Can't separate parts from the whole
- Every child is unique
- UNKNOWABLE



# *Complex Issues*

- Uncertainty
- No definitive formulation of problem – Lots of disagreement
- No end point
- Solutions are not true/false but good/poor
- Unique situations/contexts
- Relationship based – can't isolate



# *Leadership Strategies*

- Minimize or reduce complexity?
- Absorb or embrace complexity?



# When In The Zone Of...

## Complexity

### Simple/Complicated

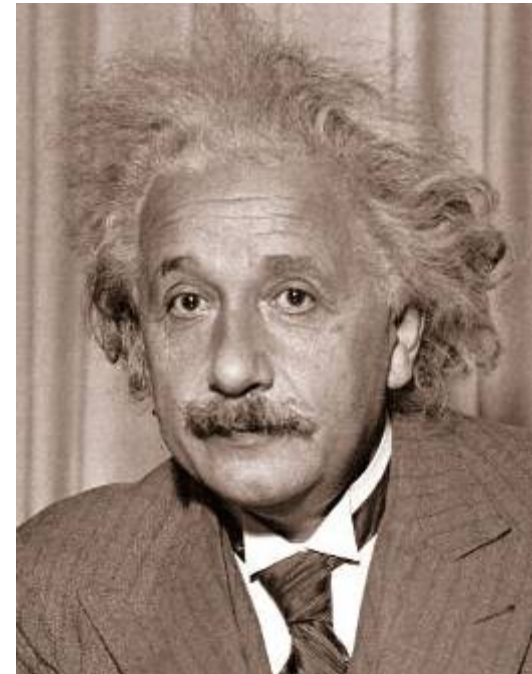
- Plan then act
- Aim for *consistency*
- Limit type of action (best practice)
- “Blueprints”
- Project Management

- “Act-learn” at the same time (tight feedback loops)
- Aim for “*coherence*”
- Multiple actions
- Min specs/simple rules
- Generative thinking AND Generative relationships
- Inquiry –

## *Albert Einstein said...*

“If I had an hour to solve a problem and my life depended on the solution, I would spend the first 55 minutes determining the proper question to ask.”

**Complex or wicked issues require more time in the inquiry phase AND we need to be more aware of our inquiry style**







## *The role of “inquiry” in leadership*

*“... Human systems grow toward what they persistently ask questions about”*

(Cooperrider and Whitney 1999, 10).



# Categories of questions

- Convergent vs. **Divergent** questions
- Data questions vs. **Wicked** questions  
(difference questions to reveal paradoxes and contradictions)
- Problem solving (find the gaps) vs. **appreciative inquiry** (what works and why?)



# *Wicked questions -examples*

- How can we dramatically improve quality while drastically reducing costs?
- How do we work together when we all have different agendas?
- From Paul Born's book Community Conversations
  - How can we commit ourselves to be accountable for achieving measurable results, while at the same time staying open to the possibility that we may be measuring the wrong outcomes?



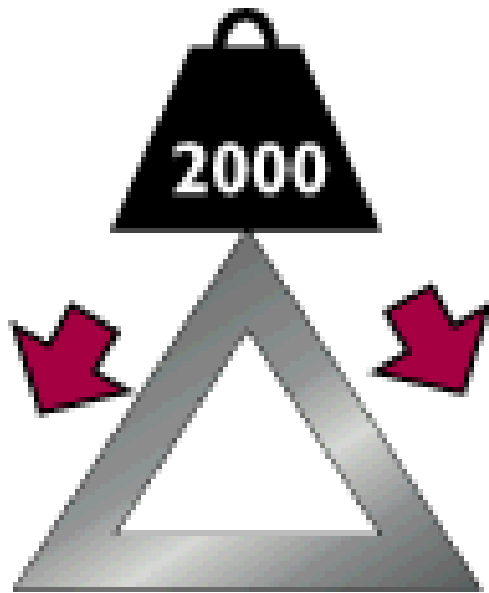




*How Resilient are your Social  
Innovations?*

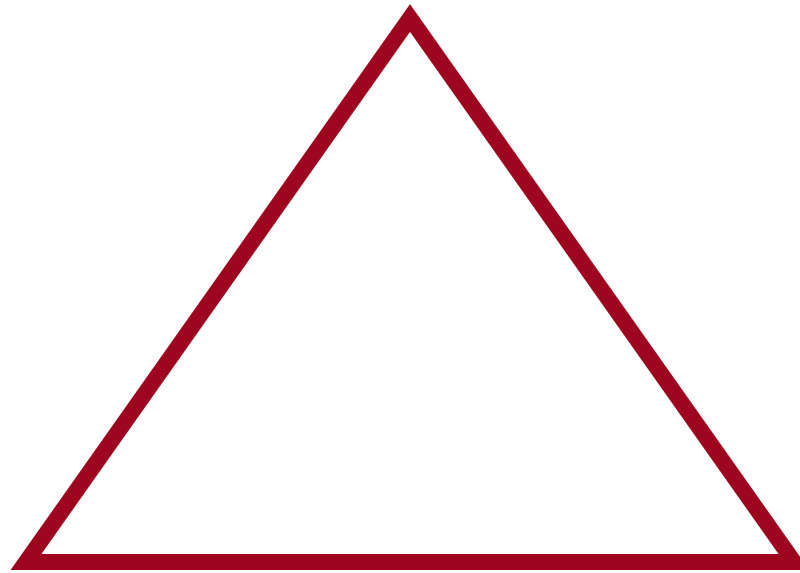


# *Resilience of Triangles*





Resources/Power



Values/Beli  
efs

Routines/Behavi  
ours

Adapted from Anthony Giddens' Structuration Theory





Resources



Value  
s

Behaviour  
s

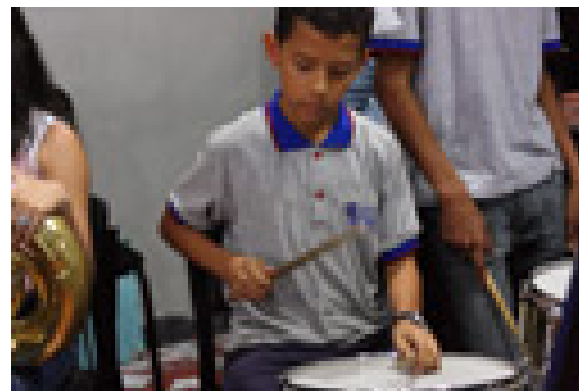


Adapted from Anthony Giddens' Structuration Theory







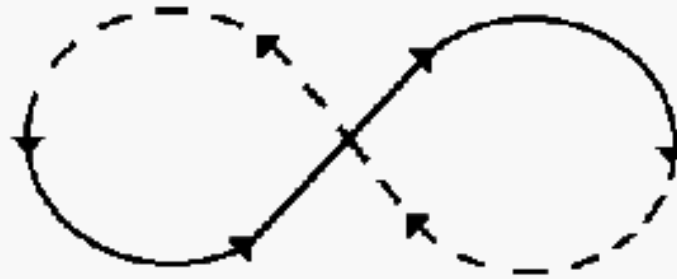










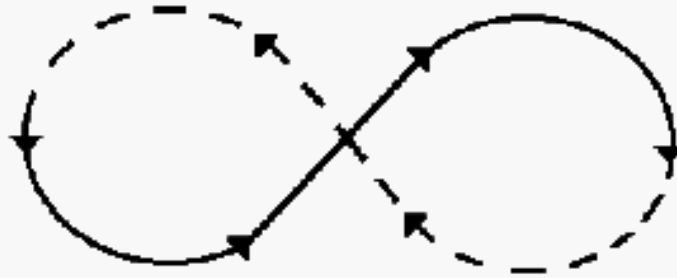


Birth





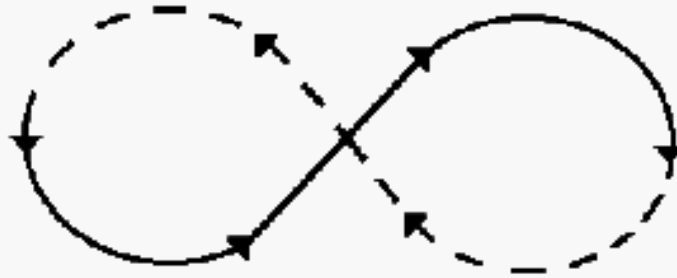
Conservation



Birth/  
Growth



Maturity/  
Conservation



Birth/  
Growth



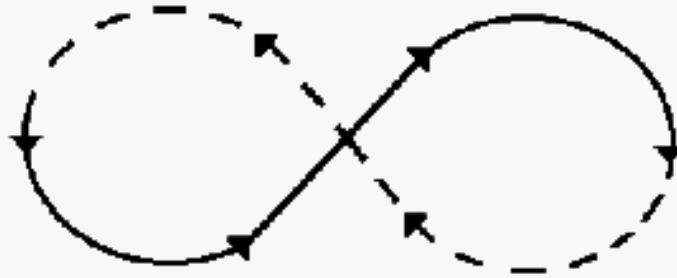
Creative  
Destruction



Renewal



Maturity/  
Conservation



Birth/  
Growth

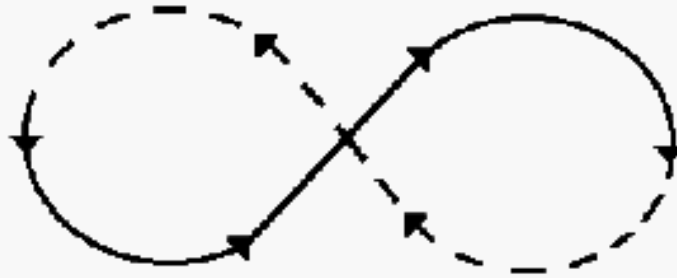


Creative  
Destruction/  
Release



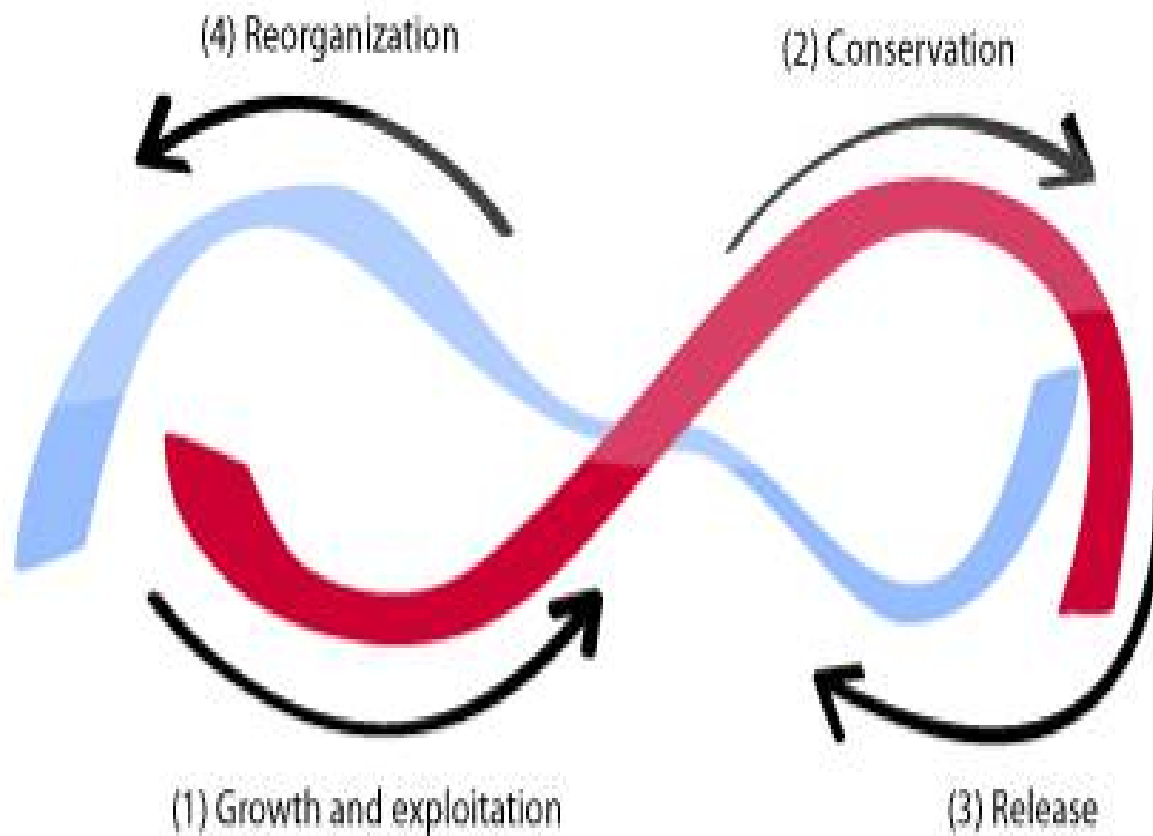


Renewal/  
Reorganization



Creative  
Destruction/  
Release





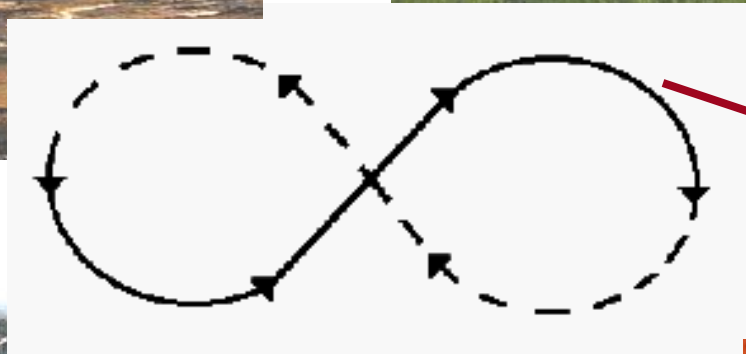
From CS Holling's work



“ We don’t resist change. We resist transitions.”

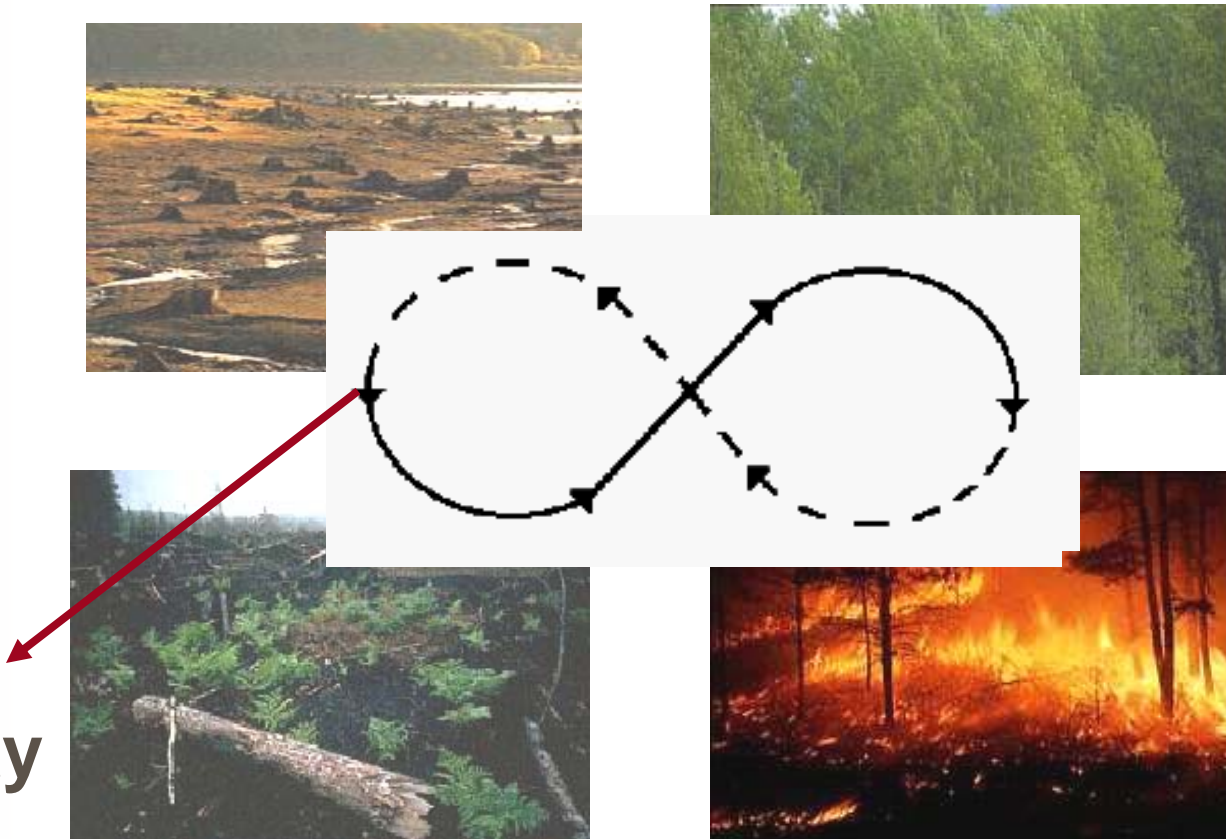
- David Leach, MD, ACGME conference Sept '07

Resisting transitions is getting caught in traps.



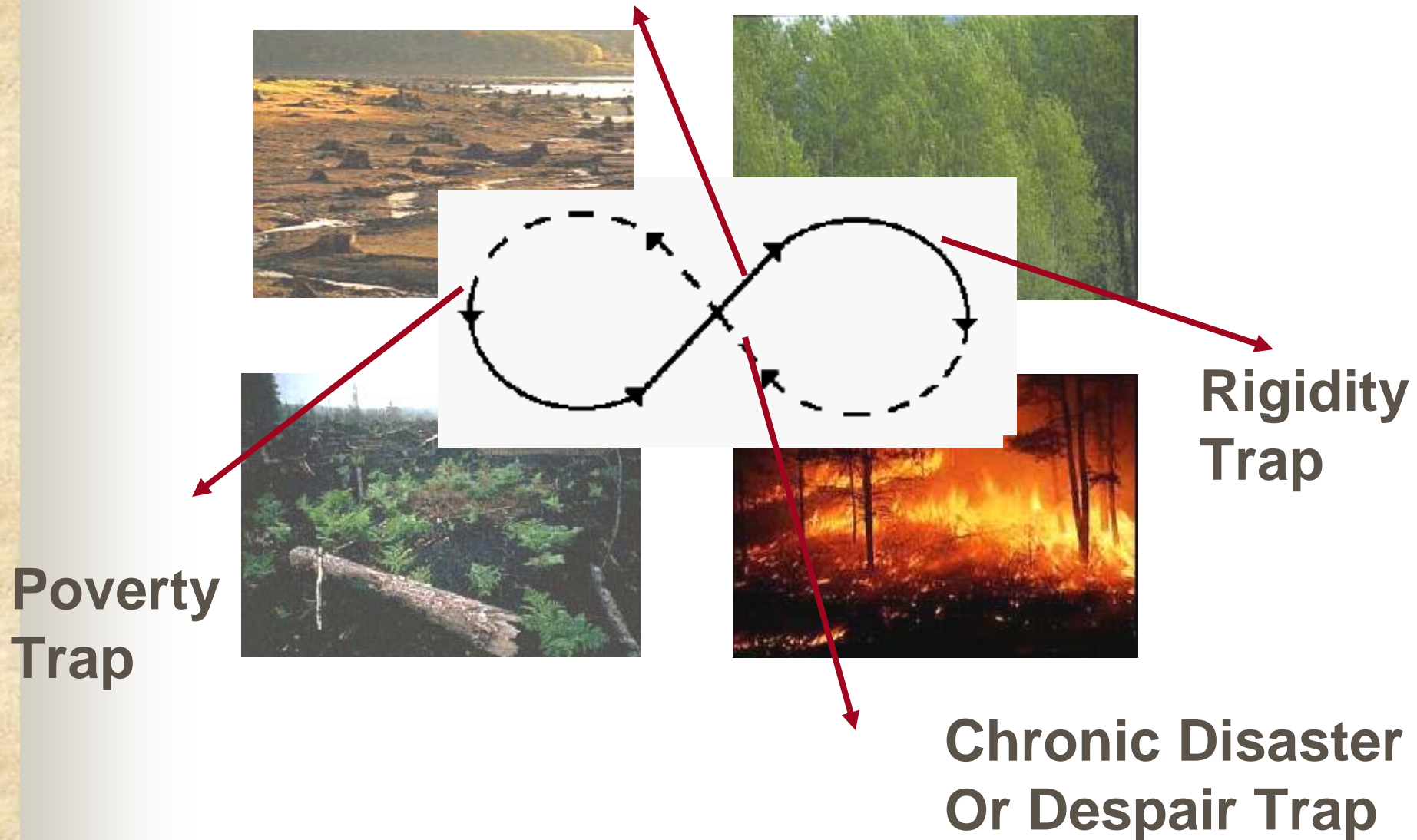
**Rigidity  
Trap**

# Poverty Trap

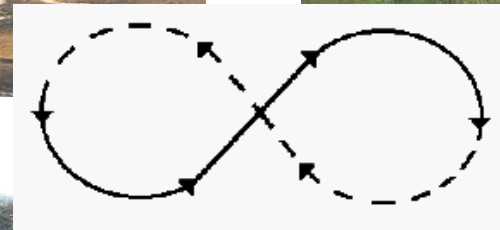
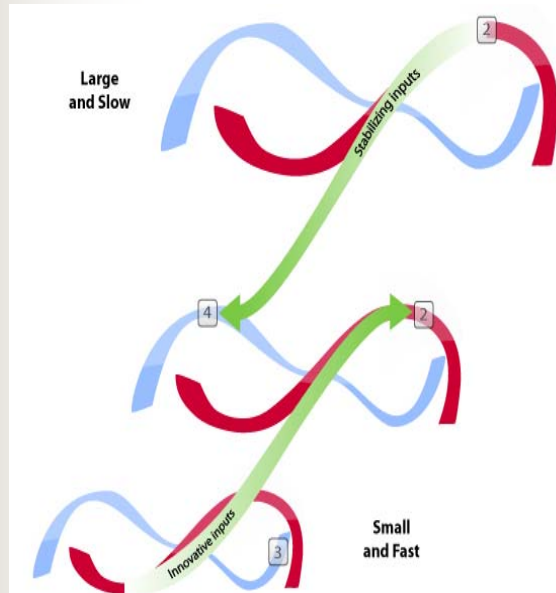




# Parasitic or Charisma Trap

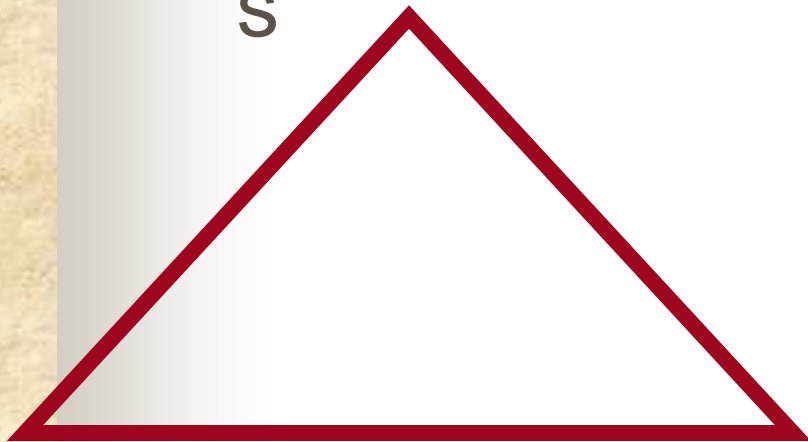






Resources

S



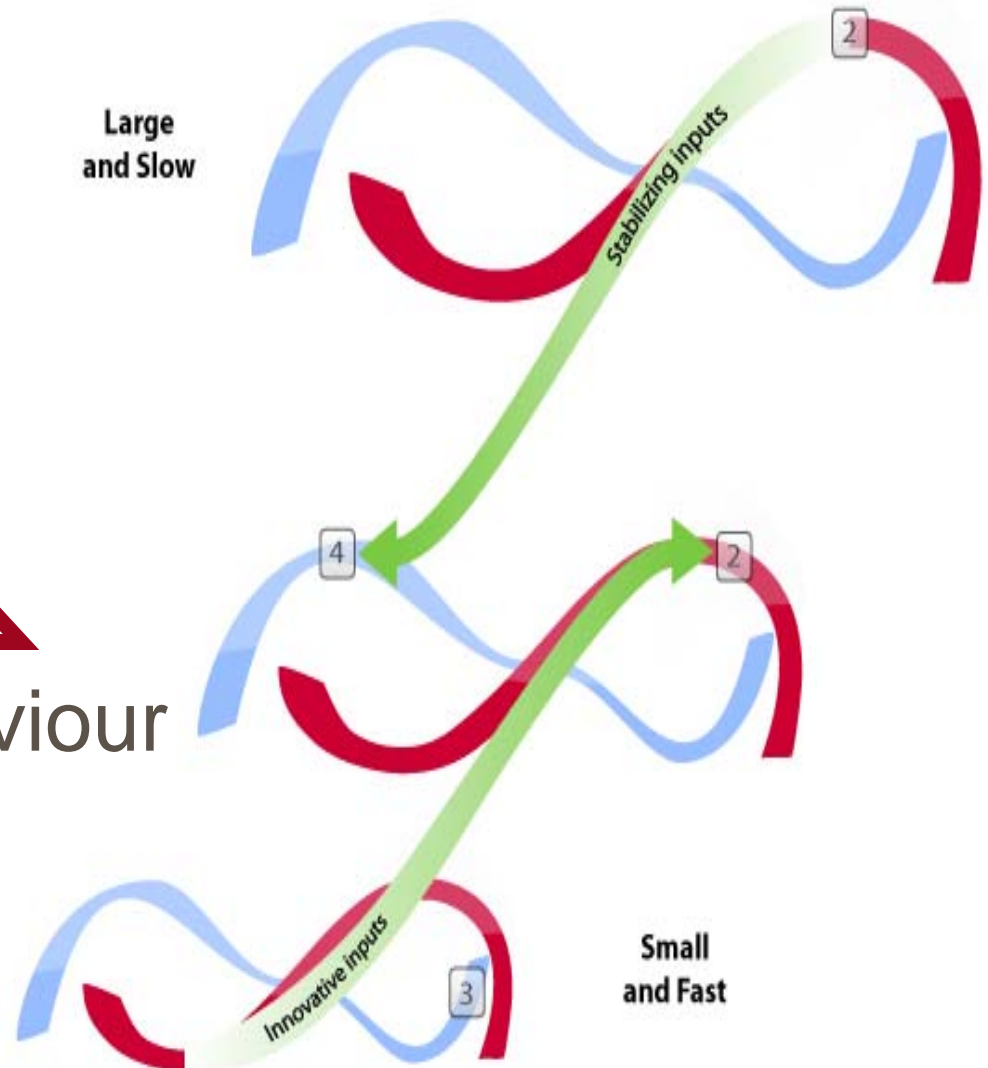
Value

S

Behaviour

S

Large  
and Slow



Adapted from Anthony Giddens' Structuration Theory



# *Agenda*

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- Ecocycle - Creative Destruction
- Transition traps



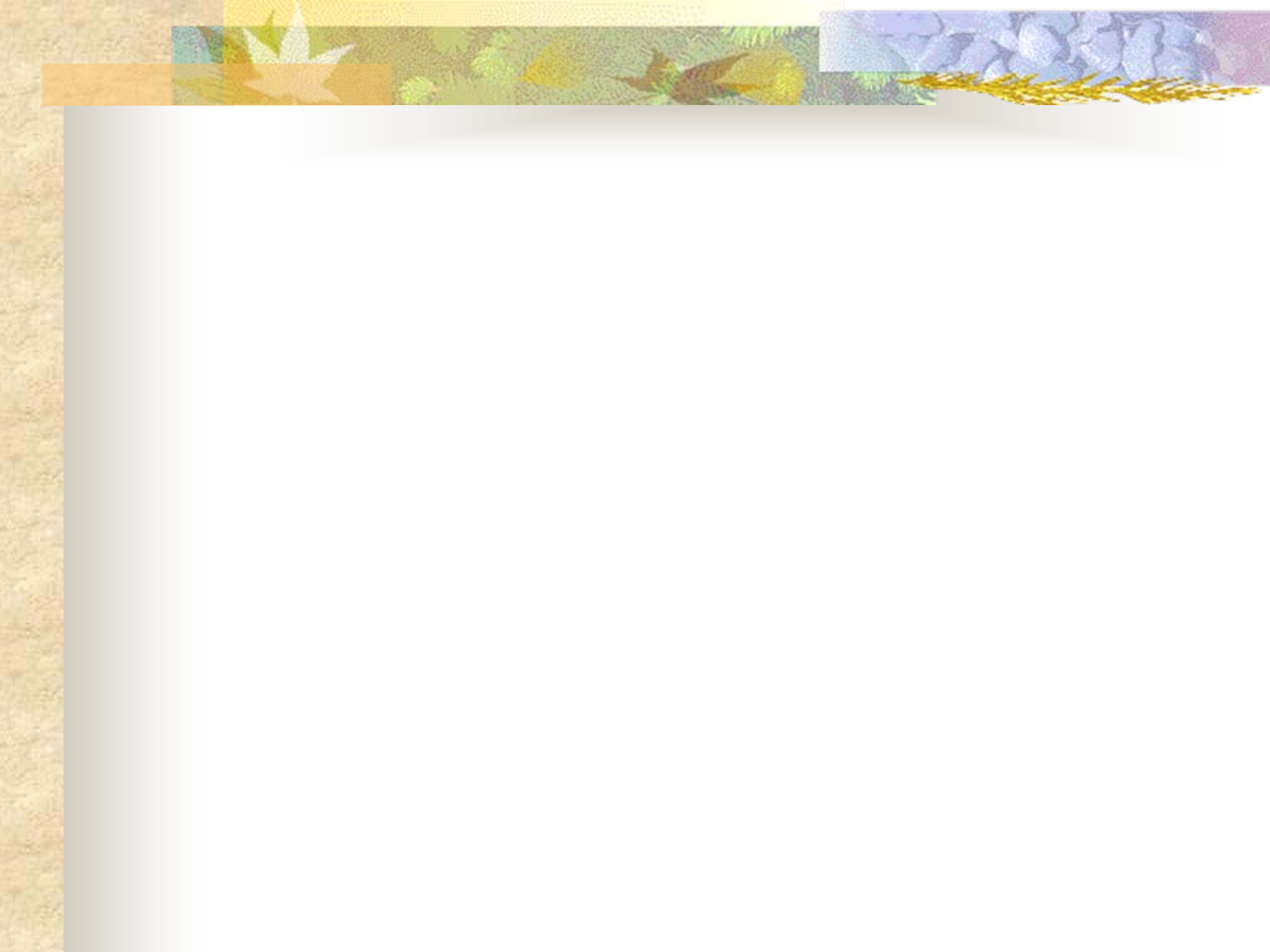


"Stop trying to change reality by attempting to eliminate complexity."

David Whyte









## Chapter 1 and 5 *Getting to Maybe*

# *The Brazil Case Study*



- annual per capita income is less than \$5000
- In the 1980s, Brazil's AIDS problem was worse than South Africa's
- Today, South Africa's HIV infection rate is 20-25% and growing whereas Brazil's is 0.6% and stable
- In 1992, World Bank study underestimated prevalence in 2000 in every country except





# *The Brazil Complex Problem*

- How do you respond to an AIDS epidemic in a developing country?
- No money for expensive drugs
  - problems of affordability of drugs
- A very iffy health care system
  - problems of treatment
- High levels of illiteracy
  - problems of compliance even if there were drugs
- High levels of poverty and hunger
  - problems of nutritional needs for drugs
- And... it is a sexually transmitted disease





# Making the Brazil Problem Complicated

- “What will drug costs be for our infected population?”
- “What resources are needed to manage drug therapies for illiterate patients?”
- “What resources are needed to assure compliance with drug associated nutrition in this population?”
- “What are the resources needed for an effective prevention program?”



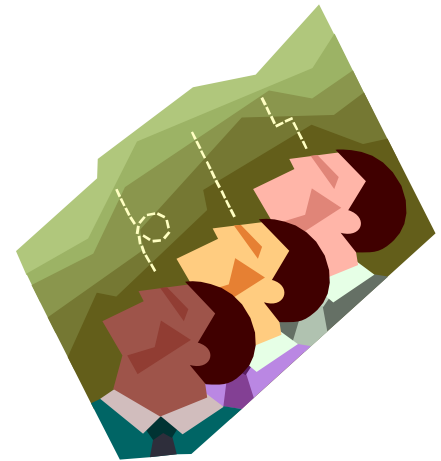
# World Bank Responds to AIDS as Complicated

- Meaningful solutions require sophisticated, integrated national health care systems
- We cannot provide treatment to all when the drug costs are so high
- We cannot afford resources to manage treatment compliance
- With our limited resources, we should focus more on prevention than treatment
- It will therefore take a long time for the problem to work itself through

# *The role of “inquiry” in system change*


*“... Human systems grow toward what they persistently ask questions about”*

(Cooperrider and Whitney 1999, 10).





# Brazil Implicitly Recognized the Complexity

- Began to address the AIDS issue head-on in 1994
- Were unwilling to accept the answers of the World Bank 
- Hence – had to change the questions...
  - *Changing the questions changes the focus, changes what is “analyzed”, changes what is seen as possible/impossible*





# ***The Brazil Questions Assume Complexity***

## **World Bank Questions**

- “What will drug costs be for our infected population?”
- “What resources are needed to manage drug therapies for illiterate patients?”

## **Brazil Questions**

**“How can we reduce costs so that we can provide treatment to all who need it?”**

**“What methods of communication will work to convey the drug therapy routine to a patient – even a homeless, illiterate patient?”**



# *The Brazil Questions*

## World Bank Questions

- “What resources are needed to assure compliance with drug associated nutrition in this population?”
- “What are the resources needed for an effective prevention program?”

## Brazil Questions

- “If food is an issue, how can we ensure greater compliance with the routine by linking up with charities that can provide food at the right times of day?”
- “How can we achieve our prevention goals while treating all of those currently infected?”

# *The Brazil Conclusions*

## World Bank Conclusions

- Meaningful solutions require sophisticated, integrated national health care systems
- We cannot provide treatment to all when the drug costs are so high
- We cannot afford resources to manage treatment compliance
- With limited resources, focus more on prevention than treatment
- It will therefore take a long time for the problem to work itself through

## Brazil Conclusions

- Find ways to use the resources we have to respond to the problem
- Provide drugs to all by finding ways to reduce drug costs
- Use our informal system to train people to care for themselves
- Prevention will be part of the treatment



## *The Brazil Responses*

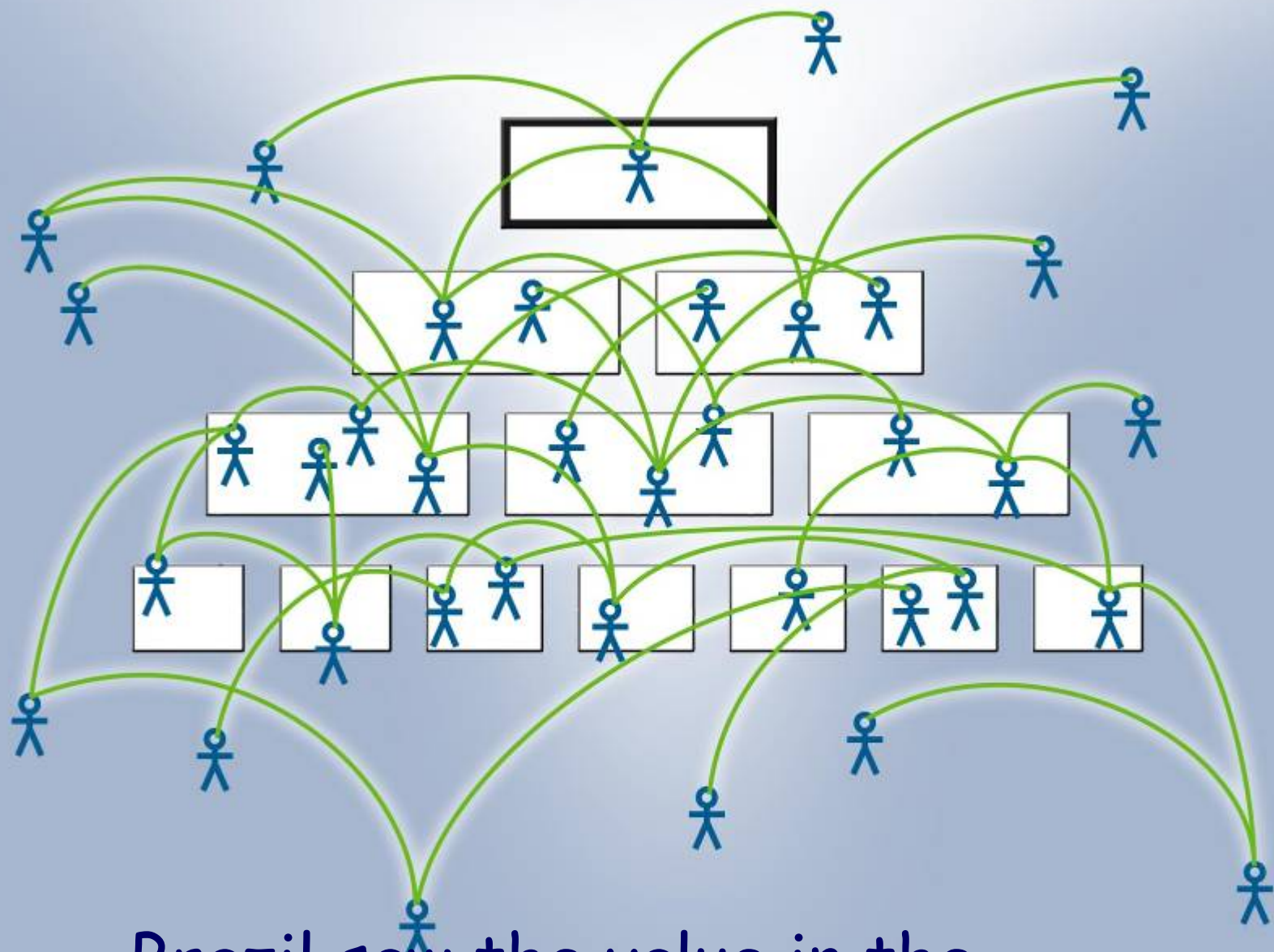
- A stable container: Brazil built on existing infrastructure (natural network existed)
  - A somewhat shaky health system of hospitals and clinics
  - Added to by 600 NGOs, churches (hubs)
- Free drugs to all AIDS patients: faced down drug companies in pursuit of national interest





## *The Brazil Responses - cont'd*

- Patients managed their own drugs
  - Illiterate people were taught by local “trustworthy” folks (hubs were sought)
- Free treatment spread prevention ideas
  - No labeling of those affected
  - Prevention information readily available



Brazil saw the value in the  
relationships as the key to change

# *The Brazil AIDS story - optimism*



- **COURAGE**— to challenge WTO, USA, large pharmaceuticals, World Bank
- **COMPLEXITY** — lived with the complex nature of the society, and the AIDS problem
- **RELATIONSHIPS** — used the power of existing relationships to learn and enhance their connectedness




# *Complicated Questions*

- Data – facts – “white hat”
- Best practice
- Problem solving – what isn’t working and how to fix it
- Questions that let us plan first and act later



# Brazil's Questions

- Assumed *Abundance (and Complexity)*
- *Divergent* (versus Convergent) questions
- Implicitly used *Appreciative Inquiry* – looking at **patterns** that already work and getting leverage from that
- Focused on *relationships* – key “unit” of analysis
  - And they created *generative relationships*
- Used, rather than avoided, *paradox (wicked questions)*
- “*Min specs*” or *simple rules* created coherence

- 
- When you think about community transformation... what questions are typically asked?
  - What *types* of questions are asked?
  - What questions do *you* ask?



# Sources

- Unless otherwise noted, the material from today was drawn from work by authored or co-authored by Brenda Zimmerman. Many of these are found at [www.change-ability.ca](http://www.change-ability.ca)
- The most recent version of the Brazil AIDS story is in “Getting to Maybe: How the World is Changed,” by Westley, Zimmerman and Patton, Random House, 2006

