Aligning Mental Models and Approaches in Systems Change Efforts

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1 MAY 2024
We will cover three main topics today.

What are mental models?

Mental models for systems change

Concrete examples of strategy and evaluation
A new article on this material is coming out in June.


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Revised March 2024

Key Points

- While the need for philanthropy to focus on systems change as a way to scale and sustain impact is now widely accepted, we see philanthropy largely failing to recognize that there are different mental models for how to change systems.
- Sometimes the systems change approaches foundations use are based on competing mental models or models that are not a good fit for the systems, problems, strategies, or practices they are using. This creates unnecessary challenges that undermine the work.
- We see two mental models for systems change being used in philanthropy—the systems dynamics mental model and systems emergence mental model. Strategies that use the systems dynamics model aim at points of high leverage in a system and predict the kinds of changes that will occur. Strategies that use the systems emergence model look for parts of the system that are under-resourced or otherwise intriguing and experiment with ways to disrupt or reinforce them.
- Our mental models have implications for our actions and effectiveness. We need to be aware of which models we are using and why, and to build our capacity to match the full suite of our strategy, grantmaking, and learning and evaluation approaches to the nature of the systems we are working in, the scale of the problems we are addressing and the systems that are holding them in place.
- This article explores the two most common mental models, provides concrete examples of foundation strategies that use each, and offers tools and resources for aligning mental models with philanthropic practice.

Introduction

The philanthropic sector today largely recognizes that the social problems foundations tackle are situated and often “stack” in broader systems that are reinforcing those problems. These systems are complex and adaptive, with many interdependent actors and factors connecting in less predictable, and often invisible, ways to create the patterns and problems foundations seek to address (Dooley, 1998, Human Systems Dynamics Institute, 2016).
1. What are mental models?
"A mental model represents a person's thought process for how something works…Mental models are based on **incomplete facts**, **past experiences**, and even **intuitive perceptions**. They help shape actions and behavior, influence what people pay attention to in complicated situations, and define how people approach and solve problems."

Mental models help us to make sense of complex situations so that we can make decisions and take action.
Mental model: Serving people using airplanes rather than flying airplanes that carry people.
Sometimes our mental models can be unhelpful.
As systems change strategists and evaluators, we have mental models for how to approach this work.

1. We need to be aware of our mental models (and others’).

2. Our models should match the systems we work in.

3. Our approaches to strategy and evaluation should align.
2. Mental models for systems change
Metaphor 1: Boat on a familiar river

- Known destination
- Experience with the river
- Minor adjustments may be necessary
Metaphor 2: Boat in unfamiliar wetlands

- Unknown path
- Messy waters
- Unexpected turns and adjustments
We see these two models at play in systems change approaches.

**Systems Dynamics**
(boat on a familiar river)

Users try to simplify complex systems so that they can intervene. They focus heavily on a system’s more predictable dynamics—how they were formed, why they persist, and how they can be changed.

They look for leverage points where focused effort and resources to drive change can have an outsized and desired effect on the system.

**Systems Emergence**
(boat in unfamiliar wetlands)

Uses non-linear and decentralized solutions that are grounded in the idea that a few big top-down actions cannot solve complex problems.

Change requires finding places to experiment within subsystems to find shake them up, cause ripple effects, and find your way forward.
They align with different types of systems.

<table>
<thead>
<tr>
<th>Systems Dynamics</th>
<th>Systems Emergence</th>
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<tbody>
<tr>
<td>(boat on a familiar river)</td>
<td>(boat in unfamiliar wetlands)</td>
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Tends to be more useful in systems where we have more experience, or where more is known about dynamics and relationships.

Tends to be more useful in lesser known or highly complex and dynamic systems, and where there is a high degree of uncertainty about what will be effective.
Common Leverage Points

- Policies
- Practices
- Resource Flows
- Relationships & Connections
- Power Dynamics
- Mental Models

- Structural Change (explicit)
- Relational Change (semi-explicit)
- Transformative Change (implicit)

• Policy and legal changes, from local to national to global, including their adoption, implementation, and monitoring.

• Changes in who sits in seats of power and who interacts with power brokers, through leadership development strategies, engagement of proximate voices, or more direct electoral work.

• Narrative changes, often using communications research and strategies, with framing aimed at opening willingness in the system for other changes.

• Resource changes, influencing government or philanthropic partners to invest in parts of systems perceived as under-resourced.

• On-the-ground practice changes, such as supporting innovators or shifting the behaviors of early adopters within an industry.

• Capacity building and field-building efforts, or other ways of strengthening nonprofits and people working on an issue, including bolstering their collaborative capacity.
Makes predictions about the outcomes that will occur if leverage points are pushed.

Feedback loop to support periodic adaptation
Systems Dynamics
LEARNING & EVALUATION TOOLS

Theories of change

System lever typologies

Donella Meadows

System mapping

Causal loop diagramming
Butterfly effect: Small actions can lead to large impacts in complex systems.
• Finding and tapping into the “green shoots” of innovation, or the places where novel solutions are already being explored.

• Funding underutilized or less explored parts of the system to see what new ideas will emerge.

• Expanding the diversity of the system’s leadership.

• Supporting local organizations rather than national or international, and giving them flexibility to find contextually appropriate solutions.

• Engaging together with those affected by problems in disruptive processes to surface innovations (e.g., through games, alternative histories to explore the past, or futures exercises).

• Strengthening the reach and influence of narratives that emerge from communities, including through communications and mobilization. Deploying rapid response dollars in response to opportunities discovered by partners closest to problems.
Experimentation with regular and rapid feedback
Emergent strategy

Developmental evaluation

Emergent learning

Futures thinking

Cynefin framework
Evaluation approaches to understand causal relationships with this model use methods to discover and make sense of emergent outcomes.
Based on what you’ve heard so far, which of the mental models are showing up most prominently in your work?

a. Systems dynamics
b. Systems emergency
c. I’m still not sure.
3. Concrete examples
THE ACHIEVEMENT GAP STARTS AT BIRTH

1,100 words

Cumulative Vocabulary of a 3-Year-Old Child

Child from Professional Family

Disadvantaged Child

500 words
Formal Early Learning System
A research-based case had been made for preschool.

There is a sizable achievement gap.

This gap has early roots.

Preschool is a solution, especially for low-income children.

But access and quality must improve.
Policy and resource changes were the chosen lever.

- **Leadership and Engagement**
- **Research and Policy Development**
- **Target Communities and System Building**

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**Problem Identified**
- Increased awareness and attention

**Politics Favorable**
- Increased political will for preschool

**Policies Proposed**
- Policies and demonstrations that are seen as technically and fiscally viable

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**OPEN POLICY WINDOWS**

- High-quality preschool in the state
The evaluation looked at political will: *bellwether methodology*.  

**Bellwethers are:**

“Influentials” in the public and/or private sectors whose positions require that they are politically informed and that they track a broad range of policy issues.

- Policymakers
- Administrators
- Media
- Other Advocates
- Funders
- Business
- Associations
### Example Bellwether Questions

1. What three issues or priorities do you think are at the top of the state-level policy agenda in the state right now?

2. What three issues do you think are at the top of the state-level policy agenda specifically for the state’s children?

3. What policies or programs do you think represent the best solutions for addressing the state’s achievement gap?

4. What do you think about increasing access to high-quality preschool as a possible solution for addressing the achievement gap?

5. How familiar are you with preschool issues in the state?

6. As a policy issue in the state, would you say preschool’s importance has *increased, decreased, or remained the same* compared to three years ago?

7. How *likely* is it in the state will increase its state-level preschool investments for kids who need it most during the next three years?
What are the top 3 Issues on the children’s (ages 0-18) policy agenda?

<table>
<thead>
<tr>
<th>Time 1</th>
<th>Time 2</th>
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</thead>
<tbody>
<tr>
<td>1. Primary education</td>
<td>1. Primary education</td>
</tr>
<tr>
<td>2. Health care</td>
<td>2. Preschool</td>
</tr>
<tr>
<td>3. Preschool</td>
<td>3. Health care</td>
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</tbody>
</table>
### How would you address the achievement gap?

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1. K-12 reform</td>
<td>67%</td>
</tr>
<tr>
<td>2. Education funding/resources</td>
<td>47%</td>
</tr>
<tr>
<td>3. Nonschool supports (health care, family involvement, after school)</td>
<td>32%</td>
</tr>
<tr>
<td>4. Supplemental school programs (ELL, literacy programs)</td>
<td>29%</td>
</tr>
<tr>
<td>5. Preschool/early care and education</td>
<td>21%</td>
</tr>
<tr>
<td>6. Other</td>
<td>13%</td>
</tr>
</tbody>
</table>

### Can preschool help to address the achievement gap?

- **Yes**: 84%
- **No**: 14%
- **Don't Know**: 2%
What is the likelihood that the state will increase preschool investments in the next 3 years?
Tracked outcomes.

• Where the issue was on the policy agenda.

• Extent to which advocates were recognized and seen as credible.

• Extent to which messages or research were “breaking through.”

Informed adaptations.

• How to adjust messages or framing.

• How to manage opposition or competing priorities.

• Likelihood of progress in the near term.
The evaluation used a policymaker rubric to track support.
68 legislators 57% of the legislature

- Low Influence
- High Influence

Low Support
- 49% Democrat
- 51% Republican
- 67% Assembly
- 33% Senate

High Support
- 80% Democrat
- 20% Republican
- 100% Assembly

17 legislators 14% of the legislature

- Low Influence
- High Influence

Low Support
- 80% Democrat
- 20% Republican

High Support
- 85% Democrats
- 15% Republicans
- 75% Assembly
- 25% Senate

22 legislators 18% of the legislature

- Low Influence
- High Influence

Low Support
- 64% Democrat
- 36% Republican

High Support
- 50% Assembly
- 50% Senate

<table>
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<tr>
<th>Strategy Features</th>
<th>Learning Mechanisms</th>
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<tbody>
<tr>
<td>• Consistent and long-term focus on one leverage point</td>
<td>• Long-term evaluation to support adaptation</td>
</tr>
<tr>
<td>• Theory of change and assumptions (revisited annually)</td>
<td>• Methods focused on interim outcomes</td>
</tr>
<tr>
<td>• Expected outcomes</td>
<td>• Close relationships with grantees</td>
</tr>
<tr>
<td>• Clear vision for a transformed system</td>
<td>• Regular learning sessions</td>
</tr>
<tr>
<td></td>
<td>• Annual look back session</td>
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<tr>
<td></td>
<td>• Learning processes led by both evaluators and program staff</td>
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Used a phased strategy.

**Research and System Sensing**
- Support research and innovation to deepen understanding about the informal care “system” and effectiveness of reaching parents and FFN caregivers
- Identify what parents and FFN caregivers want and need regarding quality of care

**Experimenting and Learning**
- Support testing of new approaches to support and provide resources for parents and FFN caregivers
- In select communities, test and evaluate new approaches to reach FFN caregivers and improve quality
- Test the viability of networks and platforms to reach parents and FFN caregivers

**Scale through Networks and Platforms**
- Strengthen and support networks and platforms
- Provide technical assistance to networks and platforms to scale what works
- Disseminate good parenting and FFN caregiving information and practices through trusted networks and effective platforms
A developmental evaluation supported strategy emergence.

The foundation and the evaluators did not come in with a pre-existing notion or framework but instead developed one based on lessons from grantees that emerged over time, what they were hearing from FFNs, and how field and policy leaders viewed scale.
## Strategy Features

- Phased approach that started with system sensing and learning
- Hypotheses and assumptions about the system, the context, and about possible cause-and-effect relationships
- Experimental interventions in subsystems within the larger education system

## Learning Mechanisms

- Developmental evaluation
- Evaluation of experiments
- High engagement in the system to sense and learn
- Learning community of the groups running experiments to discuss what they were doing and learning
Common issues when mental models, systems, and our strategy and evaluation approaches do not align.

- Overconfidence about the leverage points and disappointing results
- Learning and evaluation that feels too heavy and burdensome
- Strategy and learning and evaluation routines that require prediction instead of emergence
<table>
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<tr>
<th>Defining the system</th>
<th>Have clearly articulated the “boundaries” of the system.</th>
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<tr>
<td>Exploring the past</td>
<td>Are interested in finding feedback loops in the system that have existed over time, making something either better or worse.</td>
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<tr>
<td>Developing strategy</td>
<td>Identify high-leverage points to intervene</td>
</tr>
<tr>
<td>Integrating learning</td>
<td>Use learning for targeted adaptations, looking for expected outcomes and informing adjustments when off course.</td>
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Your mental model might be grounded in systems dynamics if you...

| Articulate a problem or issue area but do not define or bound the system |
| Look for how small changes and past events have led to large and unpredictable consequences, |
| Experiment in a variety of ways, believing identifying clear points of leverage is unlikely and instead iteratively act, learn, and then act again. |
| Integrate learning as core to strategy, recognizing that the system changes as we act and we need to listen and act in response. |
As systems change strategists and evaluators, we have mental models for how to approach this work.

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