I had prepared a few slides for possible use in today’s presentation but ended up not using them.

They are included here in the hopes that they will be useful for attendees of the System Dynamics Conference. Here is a quick summary, including some commentary on those that will be least familiar

1. Systems thinking Iceberg (slides 2 and 3). Very familiar to many in the field. What is newer to many is the elaboration of systemic structure in terms of habits (of thought, action and feeling) and artifacts. The basic idea is that these are the constitutive elements of structure. Artifacts, a term used in social theory, are all the more tangible elements of structure, like metrics, organization structures, formal procedures and policies, etc. We often use the classic seating arrangement in a classroom as a familiar example. The key idea in this version of the iceberg is that artifacts are always entwined with “mental models,” habits of thought, action and feeling. For example, classrooms are set with all the seats facing the front because the mental model is the teacher is the person in control. They are set in orderly neat rows to signify an orderly learning process. The three types of habits are important to clarify that mental models are active – they shape how we act and feel, not just how we “think” in a passive, purely cognitive sense.

2. Ladder of inference (slides 4-6). Also a tool familiar to many systems thinking practitioners, this tool has its roots in anthropology where people sought to be more disciplined in making sense, especially of cultures highly different from their own. This version highlights how our selection of what data (observable phenomena) we focus on is often shaped by our beliefs – we often see what we are prepared to see (slide 5). The last slide (slide 6) includes a quote from a famous Buddhist teacher to illustrate that the challenge of “getting stuck up the ladder” is not a new problem.

3. Slide 7, The Ladder of Connectedness, is newer, part of our “Compassionate Systems” project with MIT’s new J-WEL (World Education Lab). The origins came from seeing over the years that the emotional underpinning for the ladder of Inference were often not clear to people. Whenever any of us get stuck ‘up the ladder’ it is rarely because a simple intellectual matter, but one where anger, fear, and other emotions of disconnection are strong. The ladder of connectedness distinguishes different states of connection, to others or to a situation. The attached pdf file explains the distinctions in more detail, but the basic aim is to provide a tool to distinguish our degree of connectedness in different situations, much like the Ladder of Inference aspects of our sense making. Like the Ladder of Inference, lower on the ladder is a simpler state, “neutral awareness,” where one is simply present to the “data of a situation” or to another. From this state, moving “up the ladder” one connects to the other in terms of wishing well for them (altruistic empathy), to appreciating their way of seeing things (cognitive empathy), to increasing degrees of disconnection. Like the Ladder of Inference, it is important to not judge these states as good or bad, but to use the distinctions to be simply more aware. When one recognizes where you are at, the quieter state needed to do so naturally leads to coming “down the ladders.”
The Systems Thinking Iceberg

Events

Patterns of Behavior

Systemic Structure
The Systems Thinking Iceberg
Illustrative tools for Compassionate Systems Project

Thinking: *Ladder of Inference*

- I take actions based on my beliefs.
- I adopt beliefs about the world.
- I draw conclusions.
- I make assumptions based on the meanings I added.
- I add meanings (cultural and personal).
- I select "Data" from what I observe.
- Observable "data" and experiences (as a videotype recorder might capture it).
Illustrative tools for Compassionate Systems Project

Thinking: *Ladder of Inference*

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The reflexive loop (our beliefs affect what data we select next time).
Illustrative tools for Compassionate Systems Project

**Thinking: Ladder of Inference**

“If we take something to be the truth, we may cling to it so much that even if the truth comes and knocks at our door, we won't want to let it in... We must learn to transcend our own views.

*Understanding, like water, can flow, can penetrate. Views, knowledge, and even wisdom are solid, and can block the way of understanding.*

Thich Nhat Hanh,

“The Heart Sutra: Translations and Commentary
Illustrative tools for Compassionate Systems Project

**Feeling: Ladder of Connectedness**

- **Emotional Disconnect**
- **Empathic Distress**
- **In-group Empathy:** “us” vs. “them;”
  - In-groups are the groups people identify themselves as belonging to.
- **Cognitive Empathy:** perspective taking
- **Altruistic Empathy:** perspective-taking plus unselfish regard for the welfare of another.
- **Neutral Awareness:** non-judgemental, non-attached; equanimity
- **Agape:** ground of infinite connectedness; beyond form; pure awareness of others as distinct yet connected (akin to “infinite pool of data” in Ladder of Inference)

Mette Boell, Peter Senge
MIT J-WEL  World Education Lab
Zhang Zai Quote

Heaven is my father and Earth is my mother, and even such a small creature as I finds an intimate place in their midst.

Therefore that which fills the universe I regard as my body and that which directs the universe I consider as my nature.

All people are my brothers and sisters, and all things are my companions.

“The Western Inscription,”
Chang Tsai (Zhang Zai), 1020-1077
in Wing-tsit Chan, trans.,
A Source Book in Chinese Philosophy
LADDER of CONNECTEDNESS

• Emotional Disconnect
• Empathic Distress
• In-group Empathy
• Cognitive Empathy
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LADDER of CONNECTEDNESS

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LADDER of CONNECTEDNESS

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LADDER of CONNECTEDNESS

From Greek agapē "brotherly love, charity," in Ecclesiastical use, "the love of God for man and man for God". Also in selfless, charitable, non-erotic (brotherly/sisterly) love, spiritual love, love of the soul. Akin to Maturana’s definition of love as “the act of allowing the other to be a legitimate other.”

Agape
LADDER of CONNECTEDNESS

The term neutrality here does not imply indifference, but more a suspended non-attached and non-judgmental mode of observing. Often a sense of spaciousness or mental freedom accompanies this state of being. In many spiritual traditions, neutral awareness is associated with a state of equanimity.

Neutral Awareness
The perspective-taking that includes the perspective of heart as well as mind or intellect is altruism, which is the unselfish regard for the welfare of another. Recent findings in neuroscience show that there’s a direct link between cultivating compassion for oneself and others and behaving altruistically towards strangers.

Altruistic Empathy
LADDER of CONNECTEDNESS

Also known as “perspective-taking” is the process of understanding the view of another without necessarily connecting with or attuning to the emotion associated with that view. This state allows for a rational relationship with the other but differs from compassion since there is no immediate wish to alleviate suffering of the other, or an impulse to bring kindness and happiness into the relationship.

Cognitive Empathy
LADDER of CONNECTEDNESS

The classical stance of us vs. them. In-groups are the groups people identify themselves as belonging to. They can be gender-, culture-, race-, religion- or age-based. In-groups are juxtaposed to “out-groups,” which are composed of people who do not belong to the identified in-group. Scientifically speaking, it’s generally easier for people to empathize with others who belong to their in-groups than those who do not.

In-group Empathy
Empathic behavior can come from feeling uncomfortable and wanting to avoid other people’s distress that one can’t handle. In this state, one can try to console the person in distress, but the intention behind the seemingly empathic behavior is to alleviate one’s own personal discomfort, and so the gesture of empathy comes out of a selfish need for ameliorating or managing an undesired emotional state in oneself.

Empathic Distress
LADDER of CONNECTEDNESS

When people shut down entirely and fail to recognize others’ emotions there is a state of disconnect. Rage, violence, loathing and a depersonalizing of the other are amongst the outcomes of this state.

Emotional Disconnect