

## What Does My Brain Have To Do With It?

### Using Knowledge of our Mind Processes to Support Effective Facilitation

By Marti Roach, CTF

*Thought creates the world and then says “ I didn’t do it”.-David Bohm*

Our individual social styles are an expression through behavior that is partly inherited and partly learned. Many social theorists, linguists, philosophers, physicists, neuroscientists and others recognize the importance of image-making to our essence as humans in our search for meaning, identity, social organization and communication. Image-making refers to the fact that all people have experiences that are catalogued in their mind. Over time, we develop images, mental models or frameworks that knit together our thinking and make sense of our world. Some call this “ecology of mind”—demonstrating how interrelated so much of our internal map of the world is.

### Mental Models: Chris Argyris And The Ladder Of Inference

Chris Argyris, who has studied thought and consciousness for over forty years, created a model to explain how our mind works, how we catalogue our thoughts. This work has been elaborated up through Peter Senge’s work on Learning Organizations. Argyris spoke of mental models that "are the images, assumptions, and stories which we carry in our minds of ourselves, other people, institutions, and every aspect of the world. Like a pane of glass framing and subtly distorting our vision, mental models determine what we see." ([Fifth Discipline Fieldbook](#), p 235)

Argyris created the Ladder of Inference to explain how our mind creates mental models and how these influence future beliefs and actions.

#### THE LADDER OF INFERENCE

*This example of the ladder is from the Fifth Discipline Fieldbook, conversation adapted from solonline.com.*

I take actions based on my beliefs	<i>I am going to let Jane know how I feel.</i>
I adopt beliefs about the world*	<i>The Boss shouldn't be supervising women</i>
I draw conclusions	<i>He is picking on Jane because she is a woman.</i>
I make assumptions based on the meanings I make	<i>The Boss thinks Jane's work is unacceptable.</i>
I select “data” from what I observe*	<i>The Boss is chewing Jane out</i>
Observable “data” as a video recorder might capture it or the “pool” of available information to me.	<i>“Jane, your performance is not up to standard” -the Boss</i>

\* adopted beliefs affect what data we see the next time.

At their most expansive, mental models can be thought of as paradigms or world views that exist within individuals, groups and organizations.

- **Mental models are the vehicle for all we experience. Our catalogue of “thoughts” defines how we see reality. This is different than true “thinking, as physicist David Bohm pointed out.** “Thinking takes a longer time and emerges more gently; it appears sometimes in the kind of simple quiet idea that stands out among the crowd of passing thoughts, that contains a surprise, that includes things we have not thought before, that have the potential to change us.” ( from Dance of Change, P 355)
- **Mental models are powerful in affecting what we do because they affect what we SEE.** Two people can see the same event and describe it differently. Example: The famous film Roshomon that tells the story of a murder and rape from four viewpoints, revealing little detail of which, if any version, is “true”.
- **Mental models are elusive.** Chris Argyris notes that people do not always behave congruently with what they say they believe. He calls these two dimensions our Espoused Theory (how we talk about what we believe and say we do) and Theory in Use (How we actually behave).

How self aware we are and how we practice ongoing self awareness helps determine how much gap there is between the Espoused Theory and Theory in Use in any person.

- **The “problem” with mental models** is not whether the ones we have are right or wrong. By definition, all our mental models are simplifications, carry subjectivity and are imperfect. The “problem” is when they are tacit—existing below our level of awareness. They remain untested and unexamined.
- **There are key practices that can develop more awareness of mental models in our self and in others.** Chris Argyris’s theory of “double loop” learning introduces practices of reflection, inquiry and action to surface the hidden attitudes and intentions and free up possibilities for productive change. Some of these practices are:
  1. Recognizing leaps of abstraction (where we jump from observation to generalization)
  2. Working the Ladder of Inference (See Fifth Discipline Fieldbook or The Fifth Discipline)
  3. Exposing the Left Hand Column (See Fifth Discipline Fieldbook or The Fifth Discipline)
  4. Balancing our Inquiry skills with our advocacy skills (See Fifth Discipline Fieldbook or The Fifth Discipline)
  5. Exploring where an Espoused Theory may be different from Theory in Action (e.g. 360 and other forms of eliciting feedback, offering to give feedback, education with groups and clients)

## What Biologists Have Noted

*“Common sense is the collection of prejudices acquired by the age of eighteen.” Albert Einstein*

Our images, beliefs—our reality—determines WHAT we see. But there is more to it than that.

Humberto Maturana and his colleague Francisco Varela, both biologists note that what we see is most influenced by who we have decided to be. Information we take in from our eyes accounts for only 20% of what we use to create perception, 80% of the information that the brain works with is in the brain already. That means our “habits of thinking” are a powerful influence over what we perceive and conclusions we make!

## Image Shift Theory

The Institute of Cultural Affairs, developers of the Technology of Participation facilitation methods also developed their own unique understanding of the importance of our mind’s imagery to our impact in the world. Image Shift Theory focuses much attention on how messages are sent and received.

We receive a message from outside ourselves. It could be from another person, from the bathroom scale, the sidewalk we just tripped on, a flower we passed on the street. How we receive that message is determined by our own internal ecology of thought at that moment.

### What Do We “Hear” When A Message Is Sent?

**SHE:** *“I loved your report. I have so many questions I want to ask you about it.”*

**Internal response from person #1:** *wow! I am pumped that she liked it. I cannot wait to see what she wants to discuss.*

**Internal response from person #2:** *What did she mean by all the questions? Is this another one of those gotcha’ moments? Did I screw up on something?*

**Internal response from person #3:** *I am so tired of having to spend time explaining things to her. This is one more example of how she will not do the work herself.*

**There are many responses possible to messages:**

**Congruent messages.** Sometimes we receive messages that fit our image-our conscious map of reality—and they reinforce our view of the world. They may even enrich or expand our understanding of something that we essentially have already adopted as part of our understanding of reality. So we embellish our mental model or image of the world.

**Unperceived messages** Sometimes we are being sent messages and they do not event register—we miss the message! Our perceptions do not pick it up.

There are scientists now studying *inattention blindness*—the fact that when people are cued to one reality, they can miss things right before their eyes. Some tests have people look at a picture multiple times. Subtle changes are made in the picture, but these changes are not picked up by the eye. In another example, someone walking down the street on a college campus is approached by a workman to explain the hazards of the work being carried out. Mid way through the conversation, some workman passes between the person and the workman carrying a large window. Unknown to the passerby, the workman she was talking to was switched to a new person—and she did not even register the change. This test has been performed many times. We notice what we—at the moment—are cued to notice by the context and our internal images.

**Incongruent messages.** Some messages may not jibe with our images, values or our world view. Then we have a choice:

**1) We can dismiss the message and preserve our own understanding.** We may even be pretty vehement about this and defend our own understanding and challenge or put down the message.

**2) We can feel doubt.** We may register that we have been exposed to something that does not quite jibe with how we think or believe. It could be expressed as a little “ding in the armor” of our set of images. This presents the possibility that we can shift our self-perception about something. This doubt may or may not elicit our curiosity or lead to an imminent change in our understanding. Or, we may explore the new message and determine that it is not a valid message requiring a shift in our current image or viewpoint.

#### Shifting Perspectives of a Participant At A Facilitated Event.

In working with a non profit board that had had many bad experiences at “facilitated” board retreats, I worked hard to plan with the organization for a retreat that matched the work they needed to do. Still, in a pre-retreat survey of board members, it was clear that one member in particular was highly skeptical of any benefit coming out of the meeting and he felt strongly that they just needed to “make some decisions.”

The process designed for the retreat was more than just “making some decisions” and involved time to back up and think about past events that occurred and time to process as a group what they meant for the organization. Despite a few comments during the day by this gentleman that we were taking too long, by the end of the retreat he acknowledged surprise and satisfaction at what we accomplished. I think he had opened up to some new possibilities that good things can come from facilitated retreats.

**3) We may accommodate the new message and therefore shift around our understandings/our images.** IN SOME CASES, this is a minor learning-still an *image shift*. IN SOME CASES it can be significantly transformational. Reorganizing of some aspect of how we understand ourselves, the world our organization our life.

#### Edgar Mitchell, PhD, Astronaut: A Transformative Image Shift

In Dr. Mitchell's book, The Way of the Explorer, he describes what he experienced as he looked out the window of the spacecraft toward earth, while hurtling earthward after walking on the moon on the Apollo 14 space trip.

"It was all there suspended in the cosmos on that fragile little sphere. What I experienced was a grand epiphany accompanied by exhilaration, an event I would later refer to in terms that could not be more foreign to my upbringing in west Texas. From that moment on, my life would take a radically different course.

"What I experienced during that three-day trip home was nothing short of an overwhelming sense of universal connectedness. I actually felt what has been described as an ecstasy of unity.... I perceived the universe as in some way conscious. The thought was so large it seemed inexpressible, and to a large degree it still is."

Edgar Mitchell: I realized that the molecules of my body and my partners, and the molecules of the spacecraft were prototyped in some ancient generation of stars. And suddenly, instead of being an intellectual experience, it was an emotional experience, followed with an ecstasy! So my question was: Wow! What kind of a brain/body is this that causes this sort of experience? (Dr. Mitchell went on to found The Institute of Noetic Sciences, dedicated to studying science and consciousness)

### **What Affects Our Receptivity To New Messages? The Role Of Fluid Intelligence.**

There are many variables that might affect how receptive a person is to new "messages". One line of research is looking at the fact that some people tend to become more and more rigid in their thinking and holding to current images, while others experience ongoing learning, new insights or AHAs. One factor that has been named to account for this difference is capacity for fluid intelligence.

#### **Transformation and Fluid Intelligence** [Transformationteam.net](http://Transformationteam.net)

*If you do what you've always done, you will get what you've always gotten.*

*It is our emotional attachment to certain beliefs  
that limits us and keeps us from seeing greater realities.*

In exploring personal and global transformation, it is important to talk about the concept of fluid intelligence in relation to the ability to grow and expand our awareness. **Fluid intelligence has little to do with IQ or "book" intelligence. It is rather the ability to step outside of our beliefs and consider information which does not fit into our previously accepted view of reality.**

Our deepest beliefs and conceptions about life and the world are to some degree conditioned by our childhood experiences, our education, the mass media, and various other external influences. An individual's level of fluid intelligence can be determined based on the degree to which he or she is able to let go of previously held conceptions on encountering reliable information or experiences which show these conceptions to be mistaken or overly simplistic.

At the other end of the spectrum from fluid intelligence is static intelligence. When those with a high degree of static intelligence encounter information which seriously questions the established paradigm, they attempt to discredit the new information using laws and principles previously agreed upon under the old paradigm. If they fail at this, the new information is then deemed not worthy of study and discarded. At worst, the new evidence is actively attacked as being irrational or unscientific, even though it may be easily verified.

Scientists with a high degree of fluid intelligence who are attracted to study matters outside the current paradigm are often labeled kooks or wacky by those operating with static intelligence. Yet history shows us that it is often these "kooky" scientists who go on to make the most astonishing discoveries which pave the way for entire new areas of study which were once considered nonsense. Einstein, Galileo, and Pasteur were all ridiculed by adherents to the old paradigm of their day for their amazing discoveries which ushered in entire new branches of knowledge.

**All of us are sometimes resistant to letting go of old beliefs, while at other times we are excited to explore new ways of thinking and being.** Static intelligence and fluid intelligence are but two ends of a continuum, and each of us may shift to varying points on that continuum over time.

### Applying Image Shift Theory to Facilitation

- What are the implications of Image and Image Shift Theory to the practice of Facilitation?
  - . Begin to see that facilitators are Image Shifters, concerned with supporting learning and change.
  - At a minimum as Image Shifters, we establish a safe container that can be a host for stimulating the group's best creative possibilities of the moment.
  - At a maximum, as Image Shifters, we are intentionally unfolding a facilitating process designed to help a group shift its perception of itself to enable more possibilities and change.
  - **As facilitators, we are trying to get people to think, not just surface past thoughts.** *In this role we can picture ourselves **planting seeds—“thinking seeds.”** Some will die from neglect, some will die from lack of receptive soil, some will sprout pretty quickly and some will lie dormant and then begin to grow when the conditions are right.*
  - **Caveats:** Only the person or group itself can choose to change---as evolutionary biologists tell us, we can never direct a living system; we can only disturb it. We can never assume someone sees the world the way that we do.
- What does Image and Image Shift Theory have to do with our own thinking and perception as we facilitate?
  - A key is facilitating our own capacity to take advantage of messages that can inform and transform us. *For example, we can model to the group a shift in our understanding, demonstrating that we value learning and new information, rather than having to be “the expert facilitator” at all times.*
  - Shift the filter from a static intelligence to a fluid intelligence. Stay open, fluid and curious. *For example, We can notice that people in the room are impatient with the time a process is taking. Then, think about what is really needed and decide whether to hold the ground on taking the time or speed up the process.*
  - Develop capacities for what other disciplines call meta-cognition, self-reflexivity or mind sight—becoming aware of your own mind. (psychologist Siegel, 2001): Develop our ability to see our thinking and notice where we make assumptions. Become more transparent to our selves and to others about our understandings. *For example, if we think it will benefit the group, share thinking about why you think it is important to spend more time on something that they are discussing.*
  - As we practice the skill of becoming aware of our thinking and messages to self, it becomes easier for us to notice and help surface assumptions in the thinking of groups and group members.