

Systems Thinking & Problem Solving:

(Understanding Our Most Important Messes)

Personal Mastery & Winning Strategies
Self-fulfilling Prophecies, Mental Models

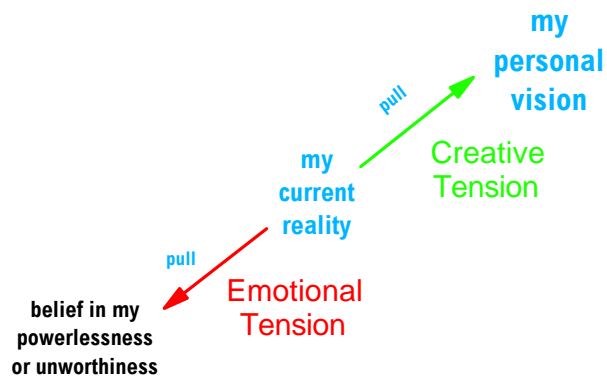
MGM-315 05/19/04

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Personal Mastery

Personal Mastery

A person's ability to hold creative tension



Wisdom

- **"Logic is the beginning of wisdom, not the end."**

Mr. Spock in Star Trek IV: The Undiscovered Country

- **"... logic is the easy part, and only the beginning. Wisdom consists more of compassion than of logic, and it's truly the hard part. But if we are to respect and care for those whose lives we change (as managers, consultants and teachers), we must be above all compassionate. We may survive faults in thinking, but we cannot survive without awareness of, and sympathy toward, others."**

David E. Birren, 14 Apr 1995
Wisconsin Dept. of Natural Resources
Bureau of Management & Budget

Feedback Loop Structure

- **"Various critics have asked that the generality of feedback loop structure be proved.**
- **Such a request fails to recognize that this class of theory is not subject to positive proof.**
- **Once the theory has been stated and a range of acceptable examples are given, the only possible proof is negative.**
- **If one can show an important and purposeful decision which is not imbedded in a feedback loop structure, then the generality is destroyed.**
- **At M.I.T. we customarily assign to doubting students the problem of finding some conscious or subconscious decision which they themselves make which is not significantly imbedded in a feedback relationship.**
- **So far the challenge stands intact."**

Jay Forrester, "A Response to Ansoff and Slevin", Management Science 14, #9, 5/68

Progress

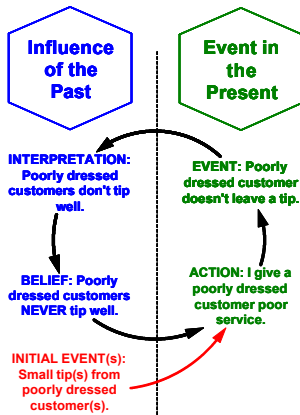
- **"Allez en avant, et la foi vous viendra."**
- **"Push on, and faith will catch up with you."**
Jean-le-Rond D'Alembert, 1717 - 1783
(Advice to those who questioned the calculus.)

Behavior Based on the Past

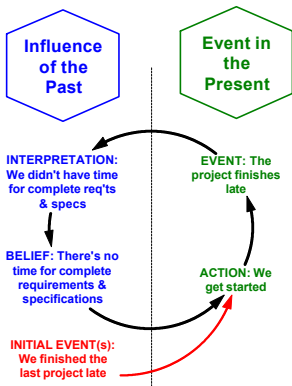
- **"In stressing the force of history on an organization,**
- **I have drawn from the legacies of European psychologists**
- **who argue that the behavior of individuals is determined primarily by past events and experiences,**
- **rather than by what lies ahead."**

Larry E. Greiner, "Evolution and revolution as organizations grow," *Harvard Business Review*, May-June 1998, p. 55

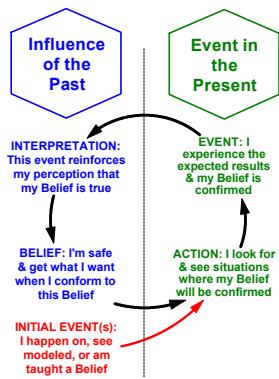
An Example of How It Works



A Project Management Example Time for Requirements Def & Specs



How Beliefs Are Formed



Belief

- "A belief is not an idea that the mind possesses,
- a belief is an idea that possesses the mind."

Robert Bolt

Confirmation Bias

- We seek evidence consistent with our prior beliefs
- Wade Boggs
 - 5 American League Batting Championships
- Dr. Benjamin Rush
 - Professor at first medical school in America
 - Signer of Declaration of Independence
- Tracking in schools
 - 1968 study
- Ozone hole
 - papers in 1974, evidence 1985, Nimbus 7 satellite in 1978?

John Sterman, "Learning in and about complex systems,"
System Dynamics Review, Summer-Fall 1994

Changing Beliefs

- "Faced with the choice of changing one's mind and proving one doesn't need to do so,
- ... we get busy on the proof."

John Kenneth Galbraith

"Winning Strategy"

Our Personal Manifestation of the Universal Human Paradigm

- "A Winning Strategy is a lifelong, unconscious formula for achieving success.
- You did not design this Winning Strategy, > it designed you.
- It is the source of your success and ... the source of your limitations.
- It defines your reality, your way of being, and your way of thinking.
- This, in turn, focuses your attention and shapes your actions, thereby determining what's possible and not possible for you ..."

Tracy Goss, *The Last Word on Power*, 1996, p. 35

Examples of Winning Strategies

- Taking control
- Challenging and provoking others
- Relating and communicating well
- Solving or preventing problems
- Using humor to get attention, smooth things over
- Facilitating and empowering
- Being convincing and motivating
- Providing security
- Problem: "As soon as you must take on the impossible, the Winning Strategy will not only cease to be useful, it will impede you from succeeding."

every reinforcing loop will eventually trigger a balancing loop

Tracy Goss, *The Last Word on Power*, 1996, p. 38

Intellectual Integrity

- "... the ability to see the world as it is,
- not as you want it to be."

Peter Drucker, *Forbes*, "Seeing things as they really are," March 10, 1997, p. 122

The World We See

- "We do not describe the world we see,
- ... we see the world we can describe."

René Descartes

What We Will Not Believe

- "Men will not believe what does not fit in with their plans or suit their prearrangements."

Historian Barbara Tuchman, *Practicing History*, 1981
