What have I Unlearned Throughout my Career? How & Why?

Alexander Laufer

NASA, Masters Forum #5 August 2002

1

Why Assumptions Matter?

- BASIC ASSUMPTIONS ABOUT REALITY are the PARADIGMS of a social science, such as management.
- They are usually held subconsciously by the scholars, the writers, the teachers, (and) the practitioners in the field.
- Yet those assumptions largely determine what the discipline scholars, writers, teachers, (and) practitioners assumes to be REALITY.

Peter Drucker,

Management Challenges for the 21st Century, 1999

Why are mental models so powerful in affecting what *we do*?

- In part, because they affect what *we see*.
- Two people with different mental models can observe the same event and describe it differently, because they have looked at different details. . . They observed selectively.

Peter Senge, The Fifth Discipline, 1990

Purpose of this session

• Develop greater awareness to the acute need for *unlearning*.

Methodology

• A personal story.

Focus

• Four major project management mindset shifts.

First Unlearning Example - 1984 Old rules

- Construction (production) plans should be prepared **before** onset of construction and as **early** as possible.
- Horizon of plan should be maximal.
- The plan should be comprehensive, **complete**, **and detailed**.

Laufer, A. and Howell, G.A., "Construction Planning: Revising the Paradigm," Project Management Journal, 24(3), September 1993, 23-33.

Setting

- Management of both design and construction.
- In house consulting to a construction company *and* to a software house.
- Studying construction productivity through time and motion tools.

Trigger / discrepancy

- Unable to prepare plans according to the old rules.
- Able to prepare short-term detailed plans only *during* construction.

Reaction

- First: Confusion; Poor focus; Slow progress.
- Later: Excitement.

Duration of development

• 3 years.

Reinforcement

"What is Planning Anyway?" Mintzberg, H. 1981. "Organization Design," Galbraith, J. (1977).



Amount of information required for task performance

Uncertainty or information to be acquired & processed

> Amount of information processed by planning team

New assumptions

- Uncertainty is not an exceptional state in an otherwise predictable process of project work.
- Project planning should explicitly address uncertainty.

New Rules

- Perfection is in the details but not too early.
- Instead of maintaining a constant level of detail across time, prepare a general master plan for the entire project and a detailed short-term plan.

See ''99 Rules for Managing Faster, Better, Cheaper Projects'' at http://216.141.196.2/NASA/Laufer/99Rules.htm

Second Unlearning Example - 1988

Old assumption

• Objectives first, means later.

Setting

• Research performed at the Construction Industry Institute.

Trigger / discrepancy

• The objective formation process is not an isolated activity and is not completed before the searching for alternatives begins.

Reaction

• Astonishment; acute pain.

Duration of development

• 6 months (+3 years).

Reinforcement

- Multiple sources, all outside project management.
- Thompson, J.D., (1967): "Uncertainty appears as the fundamental problem for complex organizations, and coping with uncertainty, as the essence of the administrative process."

March, J.G., (1988): "The argument that goal development and choice are independent behaviorally seems clearly false. It seems to me perfectly obvious that a description that assumes goals come first and action comes later is frequently radically wrong."







New assumptions

- Under conditions of uncertainty it is impossible to finalize all project objectives at the outset "once and for all."
- Rather, in order to set stable project objectives one must sometimes first explore the means.

Laufer, A. Simultaneous Management: Managing Projects in a Dynamic Environment, AMACOM, American Management Association, 1997.

Third Unlearning Example - 1991

Old assumptions (Mine)

- Project success depends primarily on planning and control which accommodate uncertainty.
- Teamwork is important but not crucial.
- Attention should be paid primarily to the formal and impersonal aspects of teamwork (e.g. structure, work processes).
- In short: systems are the key.

Setting

• Consulting and research performed at Procter & Gamble.

Trigger / discrepancy

- The actual work of the best project teams at P&G focused on planning and control *as well as* on teamwork.
- Utmost attention was given to formal *and* informal aspects of teamwork (e.g. trust).

Reaction

• Quick re-adoption; Slow explicit acknowledgment of unlearning.

Duration of development

• 3 months

Reinforcement

- Own experience.
- (Leaps of abstraction; Espoused theory vs. theoryin-use)

New assumption

Project success depends on successful teamwork.

Laufer, A. Simultaneous Management: Managing Projects in a Dynamic Environment, AMACOM, American Management Association, 1997.

Laufer, A. and Hoffman, E., "Project Management Success Stories: Lessons of Project Leaders," John Wiley & Sons, 2000.

Fourth Unlearning Example - 1999

Old assumption

• Will and courage are not among the competencies required of successful project managers.

Setting

• Research sponsored by NASA.

Trigger / discrepancy

25 of the 70 stories were classified under one of the three headings:

- Adopt a Will to Win
- Challenge the Status Quo
- Take Measured Risks

Reaction

• Surprise of having a new finding; Surprise by the nature of the finding; Quick adoption.

Duration of development

• 6 months

Reinforcement

- The story: "The Difference between Winning and Not Losing," (by Terry Little).
- Own experience.
- Findings from previous studies.

Believing is seeing.

Your beliefs control what you see.

To believe is to notice selectively.

Karl Weick, 1979

"It is the theory which describes what we can observe."

Albert Einstein

New assumptions

- Project success depends on leadership.
- Will and courage are crucial for successful leadership.

Laufer, A. and Hoffman, E., "Project Management Success Stories: Lessons of Project Leaders," John Wiley & Sons, 2000.

Summary

From

Uncertainty can be managed via risk management tools.

Project management is management of uncertainty.

From

Systems are the key.

To

People using systems, and sometimes challenging them, are the key.

"The Social universe has no "natural laws". . It is thus subject to continuous change. Assumptions that were valid yesterday can become invalid and, indeed, totally misleading in no time at all."

Peter Drucker, Management Challenges for the 21st Century, 1999