Why Companies Can't Seem to Solve Problems

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Best in the West 2006

Qantas can solve problems!

- P: Left inside main tire almost needs replacement.
  - S: Almost replaced left inside main tire.
- P: Dead bugs on windshield.
  - S: Live bugs on back order.
- P: Number 3 engine missing.
  - S: Engine found on right wing after brief search.
- P: Aircraft handles funny.
  - S: Aircraft warned to straighten up and be serious.
- P: Test flight OK, except auto-land very rough.
  - S: Auto-land not installed on this aircraft.

Clearly some organizations are quite good at solving problems. Ostensibly Qantas Airlines prides itself on its problem solving protocols. They believe it is one of the reasons they are the only airline which has not suffered a major crash.

At the end of every flight, the pilots note any problems encountered. And the mechanics are required to write down their solutions.

Inevitably some levity crept into the system.
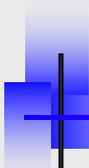
Some of Our Infamous Failures

- Mergers & Acquisitions
  - Blending cultures?
  - Achieving anticipated financial benefits?
- Installing enterprise-wide data systems
- Business process re-engineering
- Implementing strategic plans

- Downsizing
  - Achieving the needed savings?
  - Avoiding serious damage to culture or work flows?
- Anything involving executive egos
- Cross functional coordination

These are all areas where we bat less than .500; no doubt some people in the room have the expertise to shepherd a company to a satisfying solution to these issues. And some companies do well, even without relying on OD consultants!

But more often than not, we could do a lot better! We need to do more than just pursue better solutions; we need to ask why we have such trouble navigating problems in general.

Why We Stumble

- We are obsessed with solutions, to the exclusion of understanding problems
  - *Results orientation,* a common value
  - *"Don't bring me problems! Bring me solutions!"*
- We are unconsciously competent in a limited model of problem solving
- We confuse leadership with expertise and authority

1. Businesses often put a primary focus on results, on "meeting our numbers", on outcome measures such as market share, customer satisfaction, profitability, total sales, or whatever. In that environment, we quickly lose any attention to the dynamics behind the results. "Whatever it takes" becomes the SOP. Established processes are quickly discarded if alternate procedure offers a quicker, larger result.

Reflection on the history or context of a problem is excised as "academic". It is no surprise that people resort to shot gun approaches rather than aiming carefully at fundamental causes.

2. The classical model of problem solving (which has been around for 3-4 decades) has become the automatic, almost unconscious approach, regardless of the subtleties or complexities of the situation. It is an engineering model, built on the assumption of a mechanical and linear world. And yet we face a range of problems more complex, more interdependent, and more contentious than ever before.

3. The dominant models of leadership still cast the leader as the expert, as the one most capable. Presumably it was their expertise that fueled their rise to the top. Too often leaders contaminate problem solving by inserting themselves into the process and imposing a solution. Their staff never learn how to solve problems on their own. And leaders never learn that their "sense of clarity and decisiveness" is really their lack of understanding and simplistic view of the world around them.

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The Rush to Solutions:
Colloquial Problem Types

- Individual Performance Failure
  - Skills Deficit
  - Inadequate Motivation
- Communication Failure
- Personality Conflict
- Confusion on Roles and Responsibilities
- Personal Power
- Process Improvement

- They presume the nature of the *solution*
- Deflect a thorough exploration of the problem
  - Prematurely directs attention to a solution
  - Discussion focuses on implementation rather than on understanding

Our obsession with solutions is sometimes overt and blatant. But often, it quite subtle. It shows up in the ubiquitous frames for problems that show up so often in organizations. That is, these models can be invoked with little justification and they are likely to be readily accepted as plausible and appropriate.

In reality they are often merely "lowest common denominator" thinking. They reflect **beliefs about the solution** without offering any insight into the problem itself. The net effect of using them is to unduly narrow the range of investigation and rush the process into solutions without any substantial understanding.

Because they foreshadow solutions, they seduce people into **debating options** without first understanding the problem. The discussion shifts to the logistics of implementation rather than clearly exploring the fundamental cause of the problem. So problems reoccur, because we missed the fundamental cause in favor of the most available solution.

How We Learned Problem Solving

- You are in a room with 3 toggle switches: A, B, & C.
- Each switch controls 1 of 3 incandescent bulbs in another room: X, Y, & Z.
- The lights are out of sight, and you can only go into the other room to inspect the lights ONCE.
- How do you find out which switch controls which light?

```
A ———————→ X
B         Y
C ———————→ Z
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- The problem is provided, not chosen.
- The problem is well bounded.
- All the information given is needed. . . and adequate.
- Nothing in the problem is "negotiable".
- The right answer will be obvious once identified.
- We're confident there *is* an answer!

We needn't look far to understand why we are so lackluster in our problem solving ability.

Look how we learned problem solving. Back in 8th grade Algebra we were introduced to the notorious "word problem", which would dominate our lives in mathematics for years. If you Google "Problem Solving" you'll find over 5 million hits, and almost all of them provide tips on how to solve problems like the one above.

[Walk audience through the problem]

In the real world, however, problems almost never show up in such simple terms. In fact, the real challenge of problem solving is often just picking the right problem to solve in the first place.

[Well bounded]: Clear sense of what's NOT relevant. The ethnicity of the janitorial staff that cleaned the room. The purpose for which the building was constructed. The color of the bulbs. The cultural context for the exercise.

[Information needed]: No need to extend – or to constrain – the search for clues. They're all provided, and none of those provided are extraneous. Everything is meaningful . . . and essential.
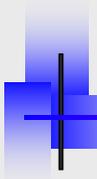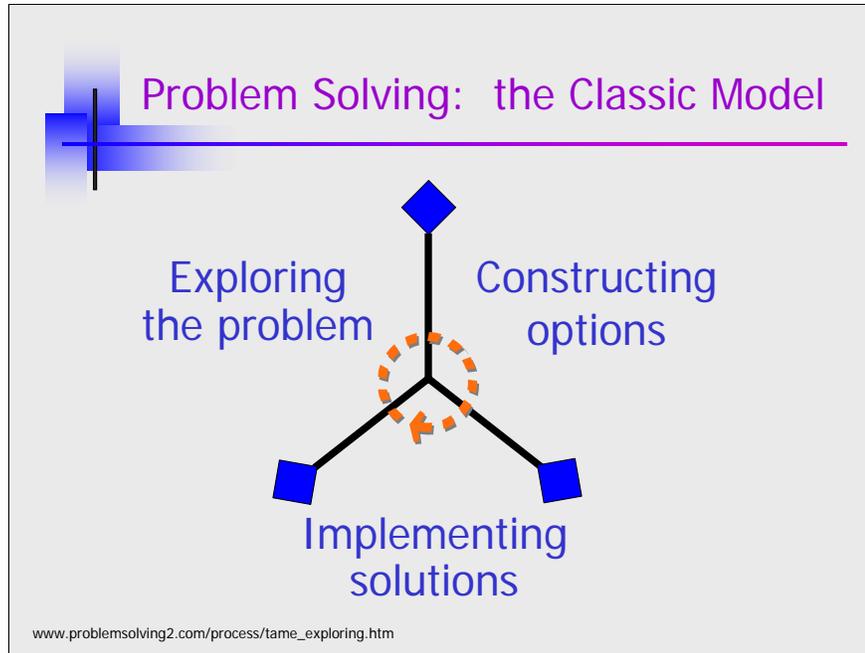
Some different examples

- Morale steadily declining despite strong financial performance, award programs, and better bonuses.
- City Council makes short-term changes in long-term development programs.
- Recent downsizings have employees too scared to take the risks needed to improve delivery of services.

- Different departments fail to cooperate in product development and manufacturing.
- Proj Mgrs routinely hide project problems from senior management until they are a crisis.
- Oracle installation is floundering badly despite senior support and bloated budget.

The problems in organizations are nothing like the problems on which we learned. More typically there is no clear sense of boundaries. No confidence that we are looking at the right symptoms, or just an echo of something more serious. Initial efforts may have been ineffective and possibly made matters worse. And even good solutions may surface without being noticed. In fact, we're often not sure there really is a solution.

Other problems that would be more typical of organizations:

•The key departments needed to support a more timely project management are reluctant to cooperate; they want greater role clarification instead so they can just work within their own domains.

•A start-up brings its first product to market only to find that it is internally deluged with ideas for Product #2, and no clear sense of what product family it should strive for.

•A company is negotiating with several of its key competitors to establish standards for a key piece of its technology. Without the standardization, the public will never accept the products. And each company is pushing for the standard that would favor their products.

Problem Solving: the Classic Model

Exploring
the problem

Constructing
options

Implementing
solutions

www.problemsolving2.com/process/tame_exploring.htm

This is the classical model of problem solving. It has been around for decades with only minor polishes here and there. Wisely, it is not considered a linear process; often solving a problem merely exposes a more significant issue. And between each phase there is a decision point.

Exploring the problem
>   Analysis of empirical elements
>   Challenging our perception of the problem
>   A problem definition

Constructing options
>   Generating possibilities (brainstorming)
>   Extracting criteria for evaluation
>   Using criteria to reshape and recombine options

Implementing solutions
>   Action planning
>   Do!
>   Monitor progress

It works reasonably well for well defined, closed-system, linear, or mechanical problems. It quickly falls apart for ill-behaved problems or complex systems dynamics.

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Limits of the Classic Model

- The model is overly analytical
    - All the "people problems" are left to the facilitator to manage
- The model presumes a homogeneity in the nature of problems; "one size fits all"
- The model ignores the impact of the organizational context on the problem solving process
    - Differing roles in problem solving by level
   - A correlated definition of leadership

People are treated only as a source of information, expertise, or creativity. We ignore their personal agendas, whose dating whom, their complex histories with each other, or their political aspirations within the company.

Despite the wide variety of problems, we believe a single model will guide us through the morass. We would never trust a physician who prescribed aspirin for every ailment; why should we rely on a single model for addressing such a range of challenges?

The classic model defines problem solving in isolation, without the confounding political landscape of organizations. The authority relations among the players, the organizational boundaries to action, or even to the exchange of information are presumed to fall into the background.

The People Side of the Process
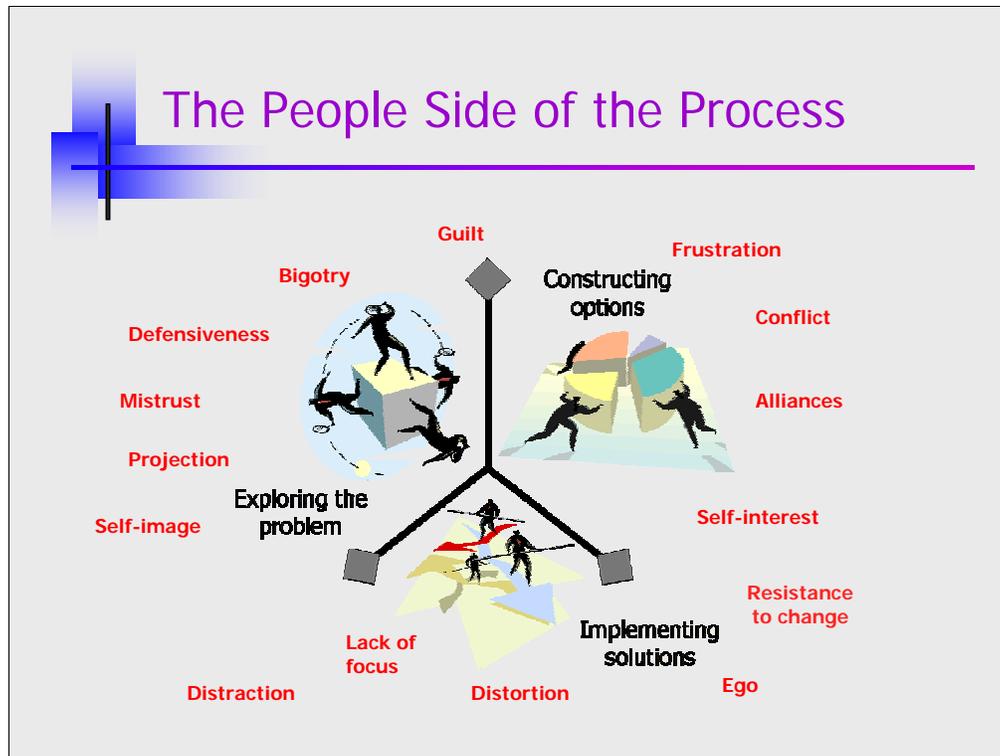
When we re-introduce the human element into the problem solving process, we're confronted with a wide range of confounding emotions. In the classical model, these are presumably filtered out by "good facilitation".

In reality, for some problem types, this emotional "noise" is actually the only real signal! Rather than being filtered out, it should be our central focus . . . sometimes.
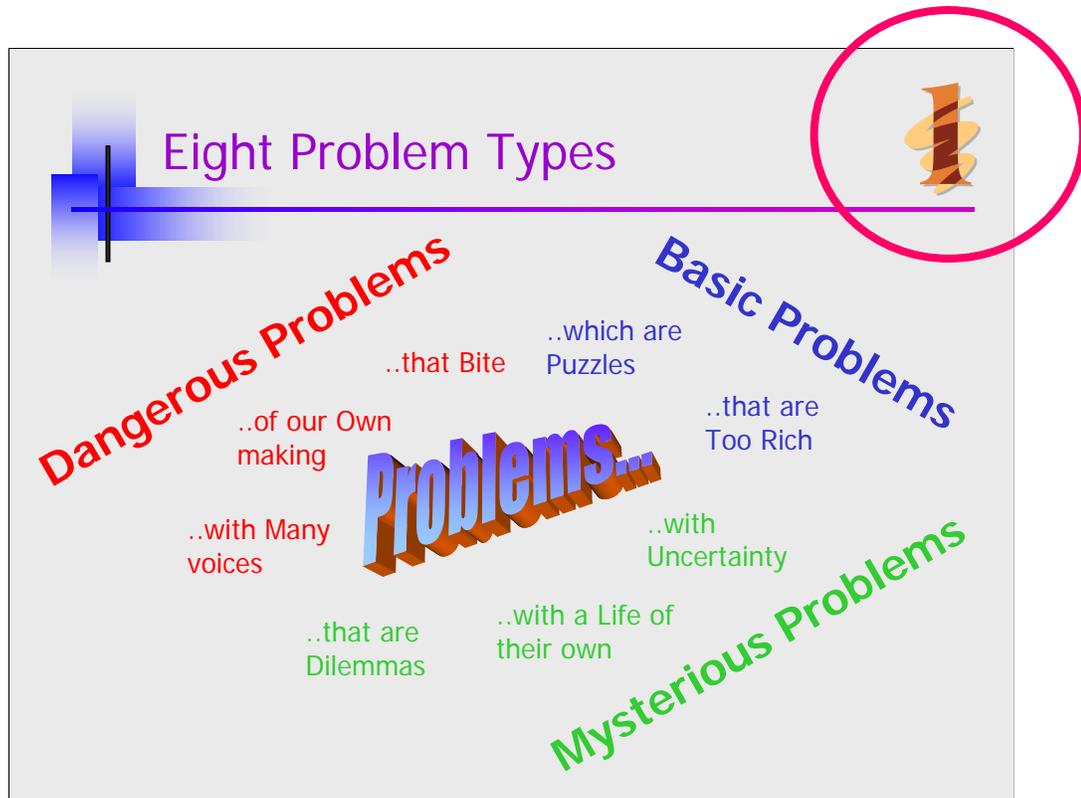
This is a short summary of a much larger presentation. You can access the material on my website. It is free to browse and download. An overview of these problem types is provided at:

www.problemsolving2.com/problem_types/type_overview.htm

In contrast to assuming that all problems are basically alike (and therefore require only one model of how to proceed), let's imagine that problems vary so dramatically in their essential nature that each fundamental type requires its own template.

Our research and experience suggests there are 8 distinct Each type has its own "best practice" for finding the most powerful solutions. Each type has its own outline of a solution. Each type requires a different stance from whatever leadership is involved.

As a result, the most critical step in problem solving is identifying the type, the features of the situation that **cannot be ignored!**

Basic Problems

Puzzles: Well bounded problems with established models for characterizing the problem; standard methods for reaching a solution. Objective standards for the outcome. The relation of parts to the whole is fully visible. Reusing solutions is highly desirable.

Too Rich: Overwhelming range of options and possibilities; no clear criteria for setting priorities. Non-objective criteria. Requires artistry and courage more than just expertise. Re-using known solution would be unacceptable. A critical audience to satisfy, but they don't know the answer!

The biggest challenge with **Puzzles** is ensuring you have the right expertise and the needed information at the table. Oftentimes the solution already exists elsewhere, and the first approach should be a search for *best practices* rather than indulge the desire of experts to design something from scratch.

While a group may provide an advantage through greater technical bandwidth and creativity, there is also the chance that a single expert would be a better strategy. A group can introduce contaminating group dynamics, personal agendas, or turf battles.

The most common identification error is forcing problems into the Puzzle category simply because we are most comfortable with this category. We want to reduce genuine visioning back to "market research".

Problems that are Too Rich are dramatically different. There are non-objective criteria at best. Using previously derived solutions would be unacceptable. Expertise may help inform the effort, but it will not decide it. You have to satisfy some audience (investors, employees, alliance partners, regulatory agencies, etc.) but they are typically unable to tell you in advance to what they will respond.

Problems that are Too Rich often provoke a kind of paralysis, an inability to choose, or to set priorities.

Mysterious Problems

Uncertainties: Problems dominated by unknown (often unknowable) values of critical variables. The future has multiple probable paths and present choices are dependent on knowing an unpredictable future.

Dilemmas: Commitment to 2+ essential but incompatible goals. Efforts toward Goal A undermine Goal B. Often pits one department against another. Any solution seems unstable; often oscillate from one horn of the dilemma to the other.

Life of Their Own: Unpredictable and uncontrolable dynamics resulting from large number of independent actors adapting to a complex system. Causal links are obscured, circular, delayed. System has momentum and direction of its own. Impossible to experiment.
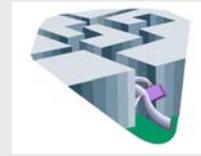
The biggest challenge is understanding the nature of the **uncertainty** (see 20/20 Foresight by H. Courtney). Different levels of uncertainty require different strategies. An equally vexing challenge is the artistry of creating compelling and appropriate scenarios.

Once drafted, a set of scenarios will create a certain amount of frustration and require a skilled facilitator to counter the push toward premature closure or over-simplification.

The most common identification error is to mistake our own internal confusion or uncertainty for uncertainty in the world. Just because we are hopelessly lost does not mean we are facing a Problem with Uncertainties.

A second common identification error is simply refusing to acknowledge the unknowns in our environment. These problems require a considerable tolerance of ambiguity; they also require on-going involvement to track the emergence of different scenarios over time.

Problems that are Dilemmas often require a shift in mindset as well as a change in structure. It takes a different thought pattern to recognize a tension that will never go away, that will require constant management rather than a final solution. The real focus shifts to the process for learning from experience, since any particular resolution of the dilemma will be short-lived.

Our most common error is delegating each side of the dilemma to a separate department, creating a constant tension between working groups who constantly undermine each other with their best efforts.

Problems with a Life of Their Own are particularly troubling to Western minds. We dislike the thought of never fully understanding, never gaining control. But these problems are inherently unknowable, although we can become fluent in typical patterns in which the system expresses itself. And we have to be careful to avoid some sweeping, comprehensive effort that is only likely to throw the system into a chaotic and unpredictable counter-reaction.

Dangerous Problems

Many Voices: Multiple constituencies have conflicting preferences for a common resource or circumstance. Often represent enduring differences of perspective. Political maneuvering of the players often obscures critical information.

Our Own Making: Conflicts created by our own naïve, arrogant, or unrealistic statements or beliefs. Vulnerability of those with enough power that they cannot be dismissed even though they may be seriously disconnected from the reality or complexity of the situation.

Bites: Long-standing, bitter conflicts. Strong moral overtones. Stereotypical thinking and action. No consensus on underlying issues. Dominated by strong personalities (martyrs, icons).

In a **Problem of Many** Voices, the greatest challenge is bringing players to the table. They need to participate fully in designing the eventual solution; they are unlikely to even have that conversation unless they perceive a safe forum where perspectives will be respected and the norms of good faith bargaining will be enforced. In such an environment, it is possible to move from posturing to sharing genuine interests.

The most common identification error is to mistake a Dilemma for a Problem of Many Voices. Dilemmas require a very different forum and a different mindset. In a Problem of Many Voices, advocacy and compromise are appropriate. Neither orientation is useful in a Dilemma.

In a **Problem of Our own Making**, reality testing is the key to a solution. Someone in authority typically has simply refused to see the consequences of their actions or beliefs. They insist on growth no matter how it strains the organization. They demand accountability even when everyone is trying their hardest in a poorly structured organization. They call for results when efforts are resource starved or poorly managed. They refuse to see themselves as contributing to the adverse reaction they so hope to avoid.

A **Problem that Bites** is rare in organizational settings. Long-standing union-management disputes are one common example. Another is the surprisingly long-lived conflict between the acquiring company and the acquired company in a contentious acquisition.

There is no neutral ground, so there is no solid position for a facilitator, mediator, or even a person of authority. The best strategy is to start quietly developing that critical mass of people whose insight or frustration lets them see the need for compromise and negotiation rather than continued conflict and reprisal.

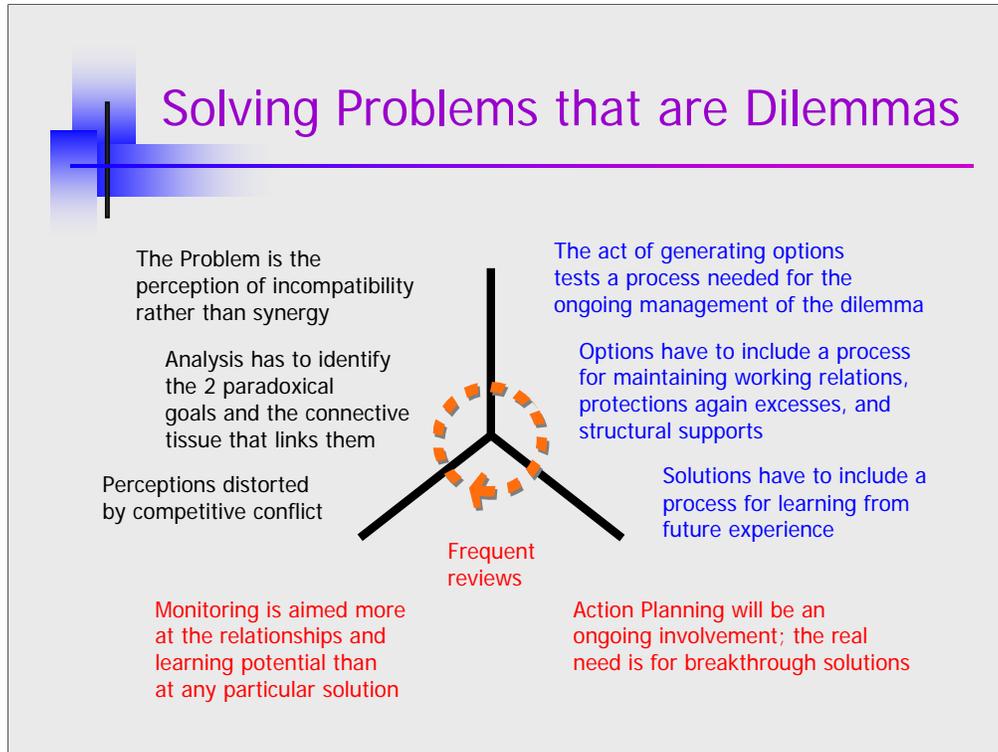## Problem Solving 2.0: 8 types

- **Puzzles**
- **Too Rich**
- **Uncertainties**
- **Dilemmas**
- **Life of their Own**
- **Many Voices**
- **Own Making**
- **Bites**

- Focus on the nature of the **problem**, not the intended solution
- Structure a process most likely to find the best solution
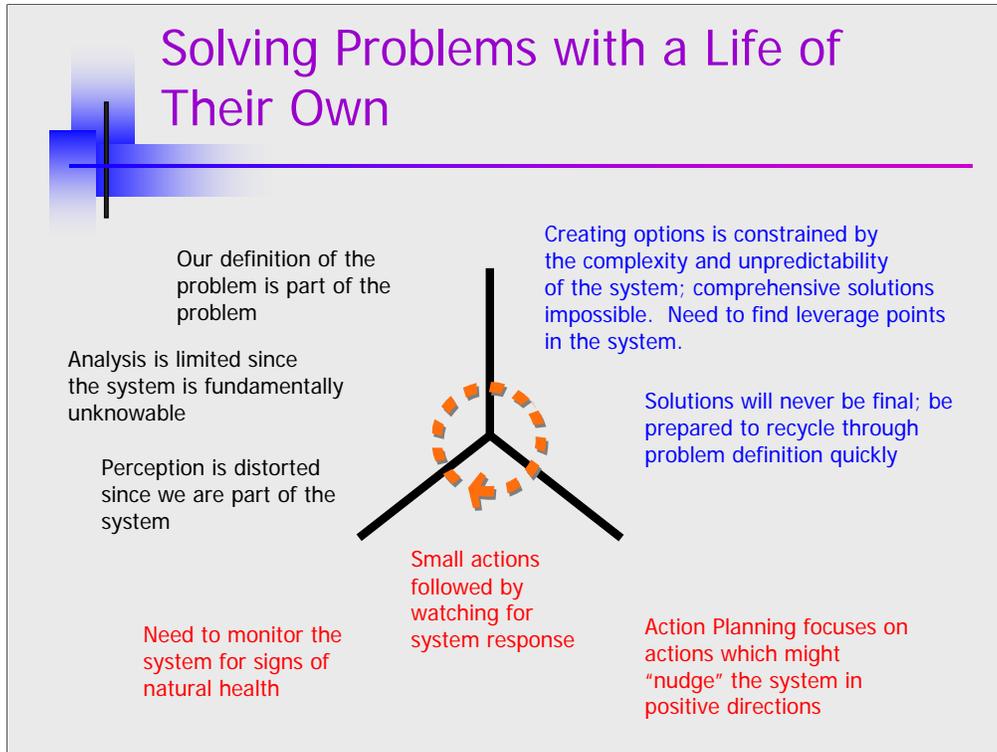- Clarify the role of the leader as well as any neutral facilitator

You can access all the details on these problem types from the following page:
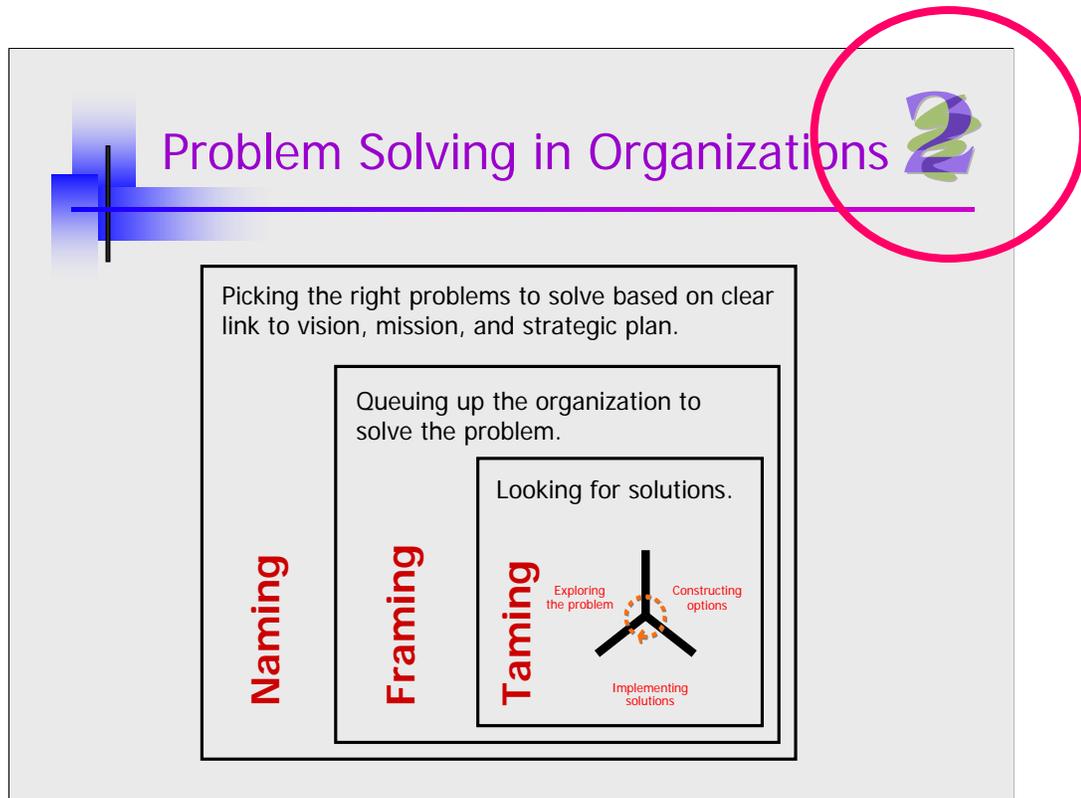
www.problemsolving2.com/problem_types/intro_to_types.htm

They are intended as a replacement for the colloquial list of problem "types" we mentioned earlier. These problem categories reflect the essential nature of the problem, and do not presume the nature of the solution. They point to a template or road map most likely to help in finding the best possible solution.

For each problem type, there is a definition of the elements required for a solution.
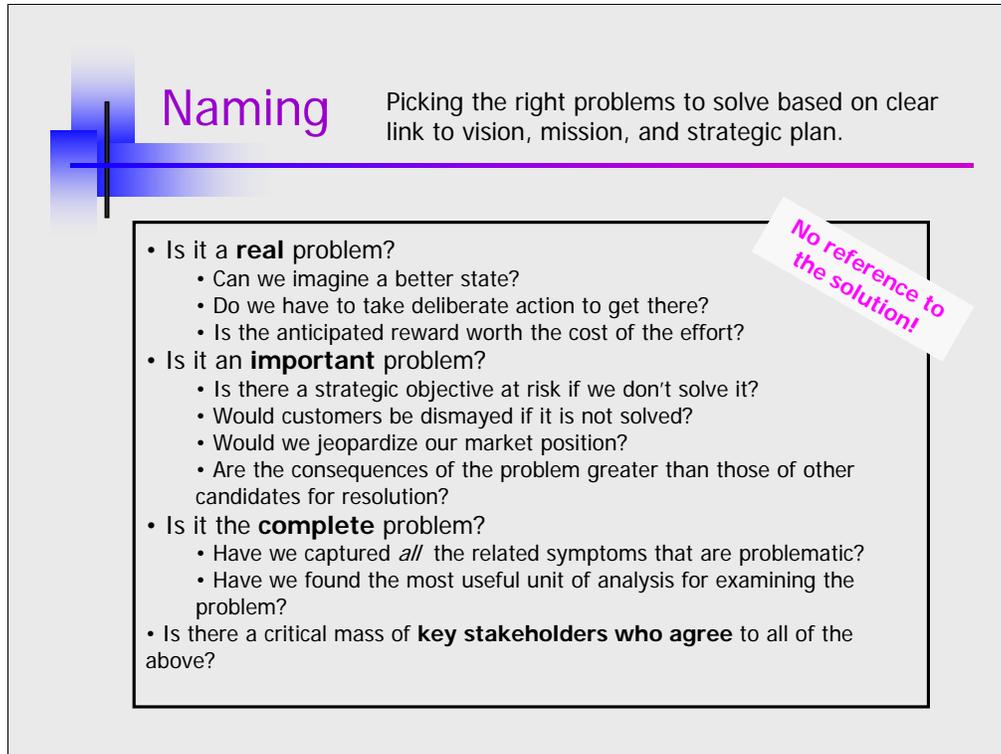
Solving Problems that are Dilemmas

The Problem is the perception of incompatibility rather than synergy

Analysis has to identify the 2 paradoxical goals and the connective tissue that links them

Perceptions distorted by competitive conflict

The act of generating options tests a process needed for the ongoing management of the dilemma

Options have to include a process for maintaining working relations, protections again excesses, and structural supports

Solutions have to include a process for learning from future experience

Frequent reviews

Monitoring is aimed more at the relationships and learning potential than at any particular solution

Action Planning will be an ongoing involvement; the real need is for breakthrough solutions

Solving Problems with a Life of Their Own

Our definition of the problem is part of the problem

Analysis is limited since the system is fundamentally unknowable

Perception is distorted since we are part of the system

Creating options is constrained by the complexity and unpredictability of the system; comprehensive solutions impossible. Need to find leverage points in the system.

Solutions will never be final; be prepared to recycle through problem definition quickly

Small actions followed by watching for system response

Need to monitor the system for signs of natural health

Action Planning focuses on actions which might "nudge" the system in positive directions

The following page

www.problemsolving2.com/process/theprocess.htm

outlines the definition of leadership defined by the problem types.

The distinction offered is mostly conceptual. In real life, the 3 phases often blur into each other. They might happen in a single paragraph or a single conversation. But someone should be sensitive to whether they have **all** happened, and that the logically prior concern of Naming has not been pre-empted by concerns around Framing or Taming.

You can find the full explanation of naming and framing on this page:

www.problemsolving2.com/process/theprocess.htm
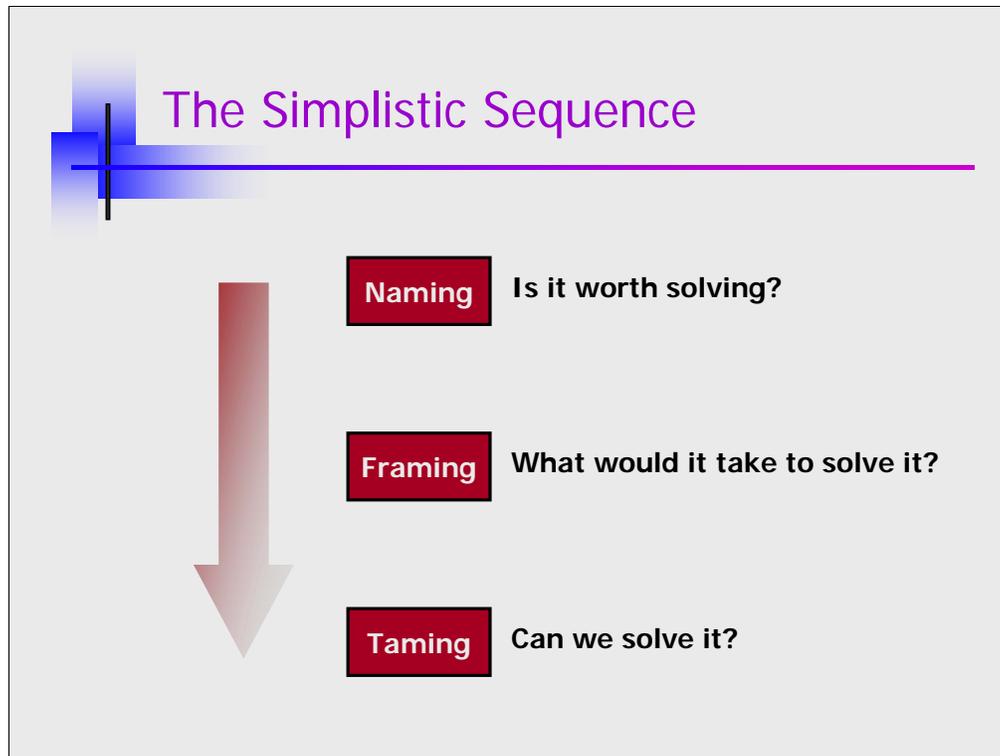
From there, you can find more detail on each element.

Framing

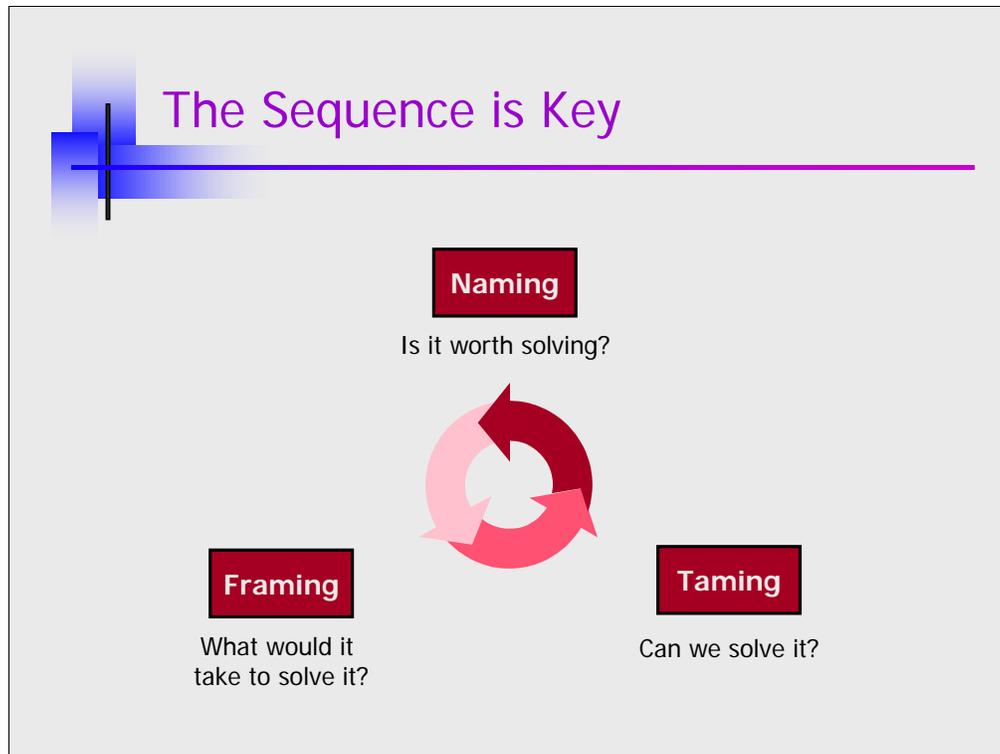Queuing up the organization to solve the problem.

- What **type** is the problem?
  - Are there secondary types evident?
  - Is there an obviously best type to use in entering the problem?

- What is the appropriate **tasking** for the problem?
  - Have we made the case for our concern?
  - What is the charter to the problem solving team?
  - What are the complete criteria for a solution?
  - Is the effort properly linked into the organization?
  - Does the group have the right staff? Expertise? Representation?
  - Is there an appropriate sponsor? Advocate?
  - Is there an particularly important value to underscore?
  - What are the indicators of progress (not success)?

A frame for the effort!

Look up **www.problemsolving2.com/process/theprocess.htm**

The Simplistic Sequence

Naming	**Is it worth solving?**
Framing	**What would it take to solve it?**
Taming	**Can we solve it?**

Naming > Framing > Taming looks like a linear and hierarchical process. Such a simplistic view is somewhat dangerous. Naming and Framing are hypotheses to be tested in the more intimate engagement of Taming. That is, working with the full complexity of the problem may challenge the initial designation of the problem, and/or the delegation to the organization.

The Sequence is Key

Naming
Is it worth solving?

Framing
What would it
take to solve it?

Taming
Can we solve it?

In a more sophisticated understanding, Naming and Framing and Taming are seen as a cyclical conversation. The smart leader will occasionally ask

"Does this problem still seem worth fixing?"

"Does it still seem to be a problem of Type X?"

"Do you think it is still fixable giving the resources we allocated?"

Maintaining these conversations – without appearing hesitant or uncertain – is a central challenge in leadership.

The Role of Leadership

IS NOT. .

- To direct attention to a specific solution
- To increase pressure through accountability
- To step in and solve it if people are not moving fast enough
- To referee conflicts

IS. .

- Ensure people are working on the right problems
- Ensure the process matches the essential nature of the problem
- Ensure the organization has a clear charter for the effort
- To challenge initial assumptions (especially their own)

This new model of problem solving has implications for the companion process of leadership. Rather than seeing the leader as arbiter, or expert, their proper role is to point the organization to the problems that deserve attention, and to make sure the problem solving process in play will truly leverage the time and talent of their staff.

Correlated Notion of Leadership

Problem Solving **Leader-ship**
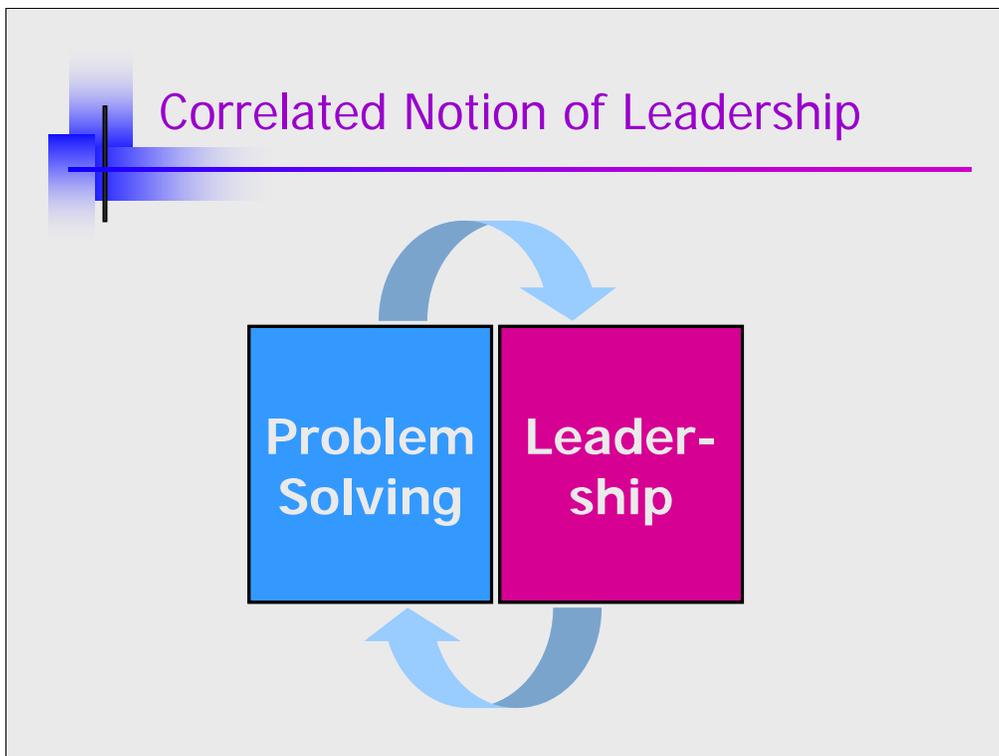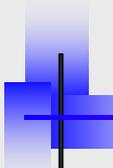
Some of Our Infamous Failures...revisited

- Mergers & Acquisitions
- Enterprise-wide data systems
- Business process re-engineering
- Implementing strategic plans
- Downsizing
- Executive egos
- Cross functional coordination

- Problems with a Life of Their Own
- Puzzles!
- Dilemmas
- Problems of our Own Making
- Problems with Uncertainties
- Problems with Many Voices

This debate – reflecting on the essential nature of a problem – is the most valuable one of all. The questions in your mind now are the **beginning** of better problem solving, and of better leadership.

Thank you

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