Have you ever wondered, "Why do bad things happen to good projects?" Maybe this has happened to you! Join us in this session where we'll share bad things that have happened to our good projects. Among other things, we'll consider:

- How do you effectively deal with systems that can do things you don't want them to?
- How do our interventions create the problems we're trying to avoid?
- Can we intervene in a system to keep it operating in an optimum range?
- What design considerations are involved in creating a system that doesn't require intervention?
- How can we avoid being touched by the problem?
- How can we design the intervention so the problem does not happen in the first place?
- What sorts of systems tools can we use? (Diagram of effects, open-closed loop analysis, types of interventions and operating ranges.)
- What are the most common failure patterns and how can we prevent them?

#### **Characteristic Patterns of Intervention Failure**

## The Identified Patient (or single person) Pattern

This system is characterized by everyone else in the system identifying a "problem" person. Thing to remember in this system are:

- Self, Other, Context.
- We're better at creating new systems, than graceful ending systems.
- In reality, the system is dysfunctional, and it's not really the identified person creating the problems.
- If you're the identified person, leave if possible.

#### The Clueless Person Pattern

This system is identified by hearing the phrases "I didn't see it coming." or "I didn't even know there was a problem." Get out of cluelessness by

- A foreign event
- Awareness of something wrong (pain).
- A willingness to change. (Check your identity!)
- Acceptance of change you engage (It's ok to be here).

# The Best and the Brightest Pattern

This system is identified by personnel problems, where people not familiar with the problem domain select "the best qualified" people to be on the team / hired.

- This can be an HR candidate problem. How are the wrong people getting through?
- Check also into who's being rejected.
- Do the hiring / assigning yourself.
- There's more acceptance of a hire if the receiving group has input and a choice in the process.

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## The Change-Just-One-Thing Pattern

This system is identified when you hear phrases such as:

- "All we need to do is ..."
- "It's just one thing."
- "They are the problem."

This thinking generally results in a systems response that wasn't anticipated when the change was made.

- There is no way to change a single thing in a system.
- Swapping places (development <-> test) might help
- How to be represented (put it in the group's hands).

### **Boomerang Patterns**

These situations are where we try to make things better, but something happens and the results boomerang and we get the opposite of what we were working for. This is identified by pushing on the system and the system pushes back.

**Example: Quality Boomerangs** 

- A quality loop is added.
- The reward loop is still based on effort, not quality.
- People don't behave as hoped for.

#### **Two Interventions at One Time**

- Know your system.
- Check your assumptions if a problem develops.
- Separate interventions by time (introduce them sequentially)
- Separate interventions by people (one per group)
- In general changing the reward loop changes the process behavior.

## Wrong Reaction to Ridicule

- If a change is being ridiculed, it is being watched too.
- If it works, you will be followed, not acknowledged but imitated.
- Just do it quietly. Publicity won't help because you will be in chaos initially.
- Once you succeed, don't proselytize.

#### The Bingo Card Pattern

Trying to make a 100% penetration

- The last 10% are the hardest to change.
- It may be smarter not to change them.
- Management support initially you want benign neglect.
- Try to do the first round cheap or free, show what is saved, then reinvest 1/2 of the savings in the next round.

### **Secrets and Invisibility Patterns**

- Try to make sure that all the costs and benefits are visible, regardless of where they are charged.
- The most important people to talk to are the ones you are told not to talk to. Sometimes you can learn what you need by watching them.
- Whatever is hidden is usually the balancing force.
- If people cannot articulate what they do, you need to see what is done to get more detail.
- Remember that only success stories are publicized and only recognized changes are publicized.

## **Overreacting to Resistance Pattern**

- Resistance is the public name for "not feeling safe."
- Resistance is your best information. Use resistance to get information about blocking forces.
- Resistance to change is often an identity issue.

# **Scaling Patterns**

Decomposition Fallacy

You can't break up a great team and expect all the teams you put the people on to magically become great.

## Composition Fallacy

Two small systems joined together make more than twice as big a system.

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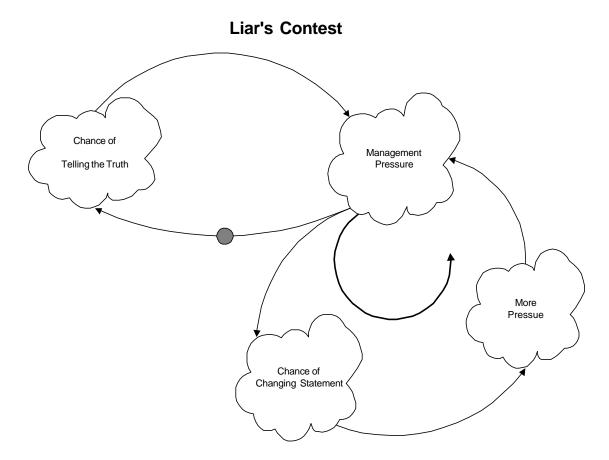
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# D14. Steering the System: Effective Interventions © Don Gray, Jerry Weinberg, 2003

We looked at the "Liar's Contest" in detail during the session in 2003.

In our discussion, the "Liar's Contest" happened when pressure was applied to reduce the amount of time for a service to be delivered.



As management applies pressure to reduce the amount of time, the chance that the provider is telling the truth decreases. This is a balancing loop that will eventually stabilize.

The side loop becomes active once the provider agrees to change the time estimate. As the amount of pressure increases, the chance of the provider changing the estimate increases. As the time estimates change, this creates more management belief in pressure. This is a reinforcing loop that will continue until some other balancing loop (quality, customer satisfaction, employee retention) comes into play.