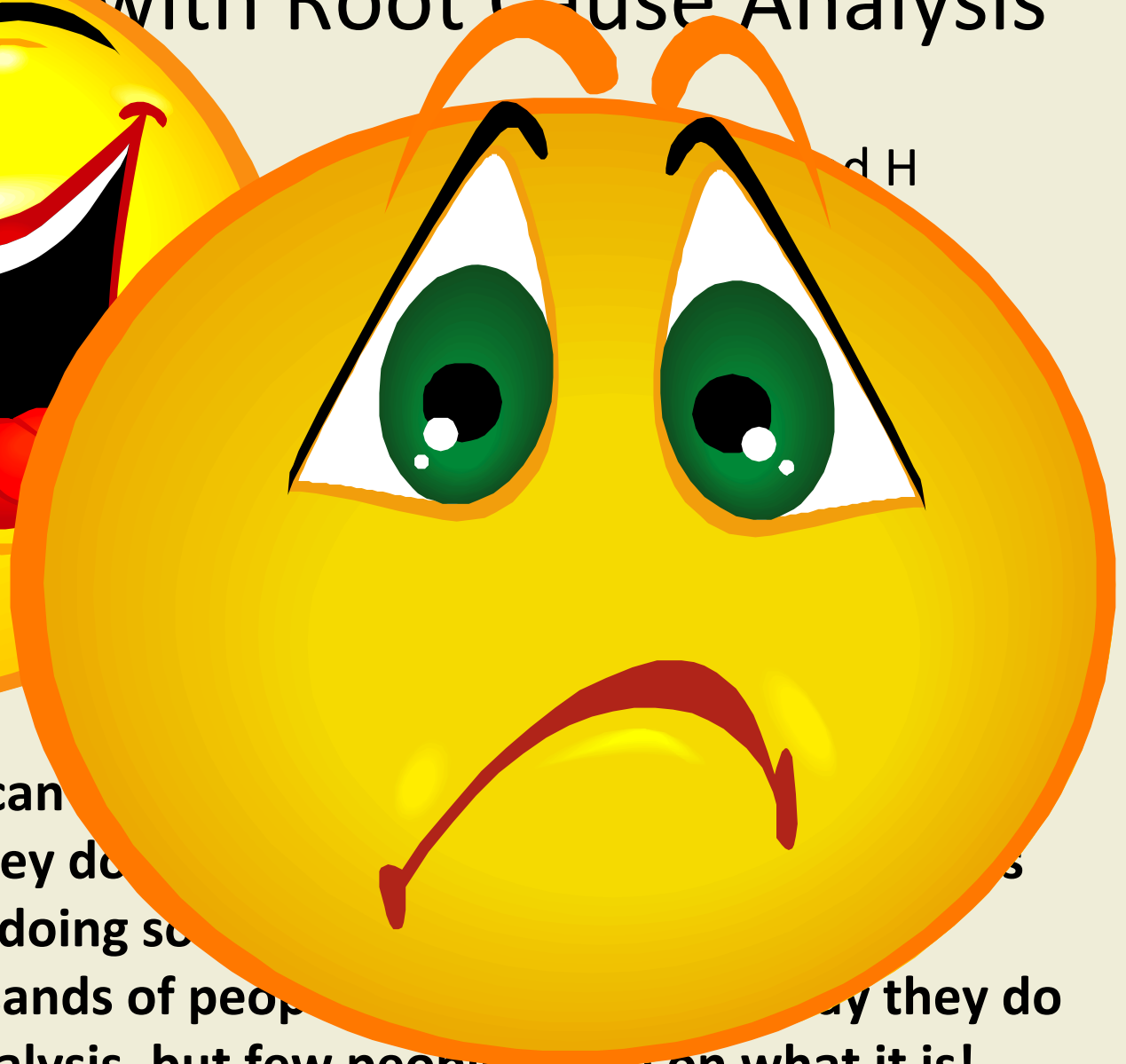


The Problem with Root Cause Analysis

It seems to address everything
except “root cause!”

C. Robert (Bob) Nelms

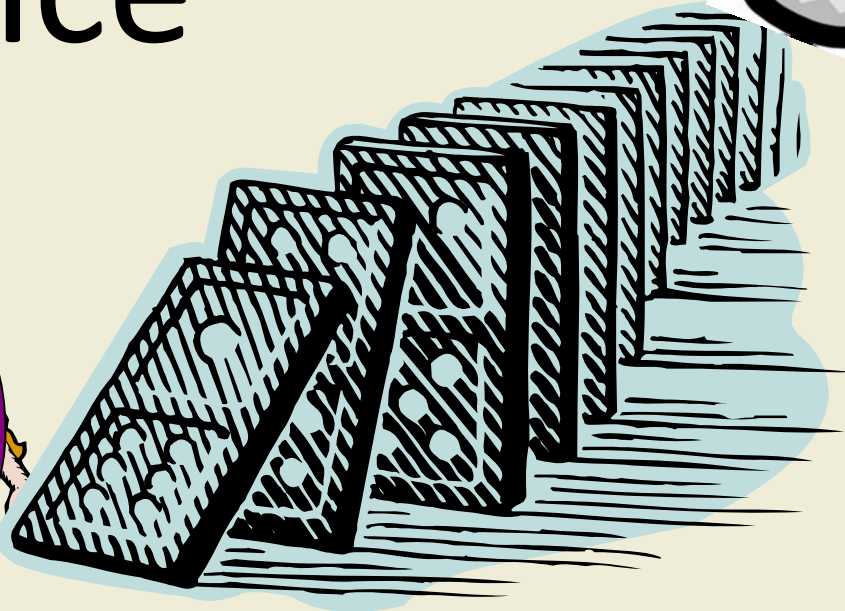
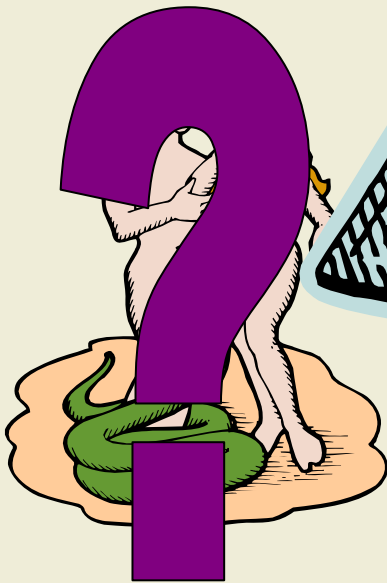
The Problem with Root Cause Analysis



No-one can
Everyone says they do
doing so
Hundreds of thousands of people say they do
Root Cause Analysis, but few people agree on what it is!

The Problem with Root Cause Analysis

Choice

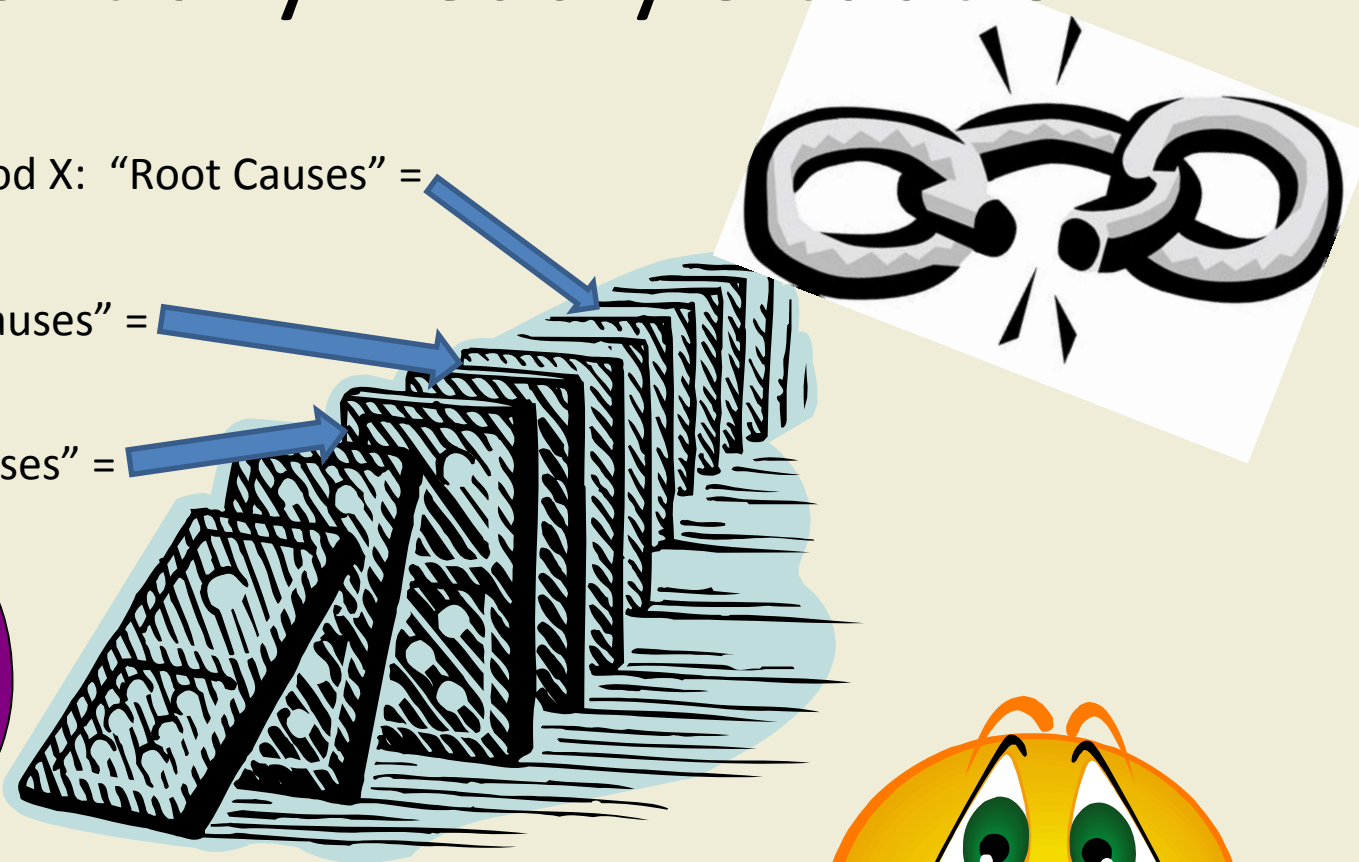


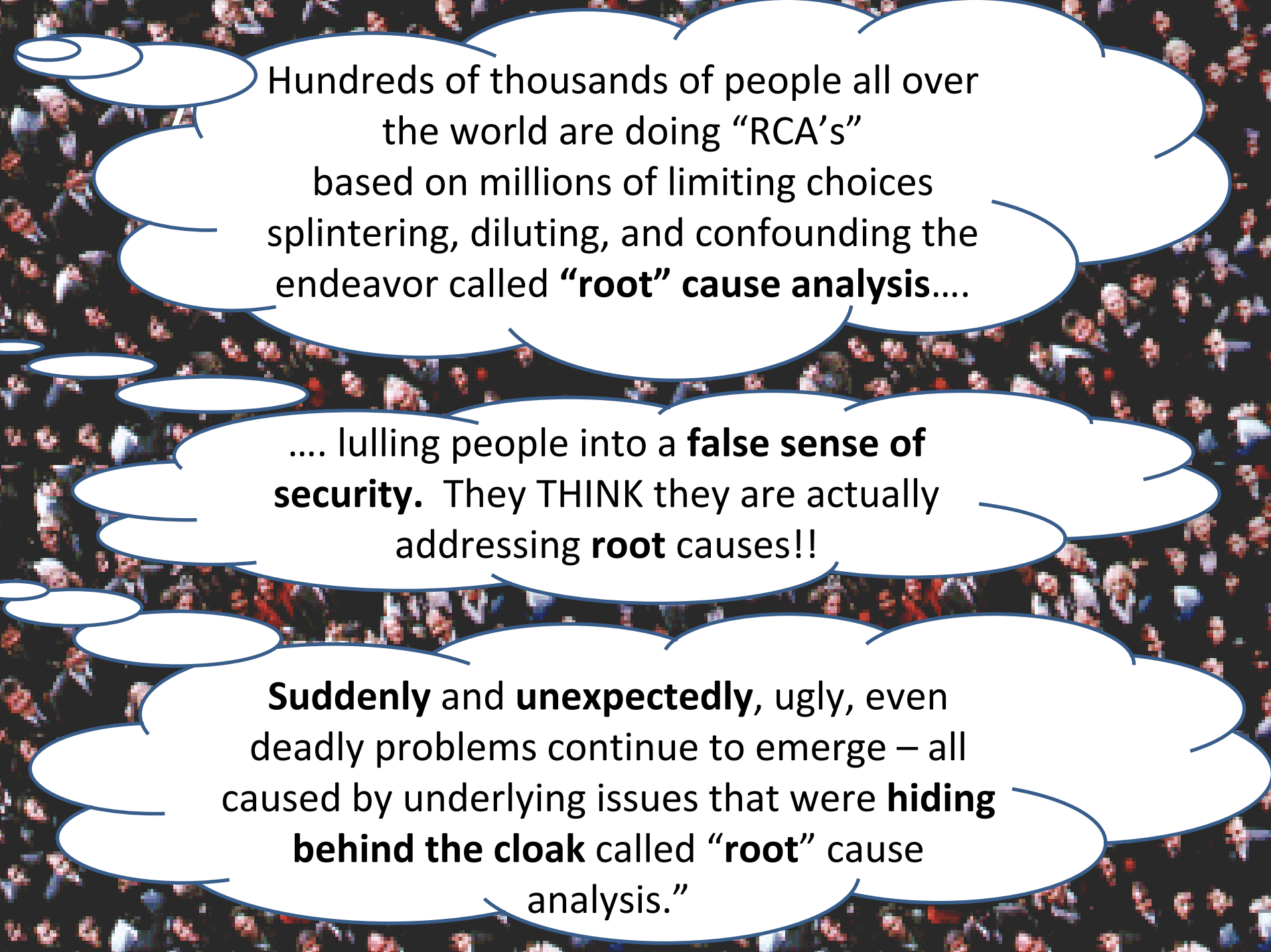
A Potentially Deadly Situation

Method X: "Root Causes" =

Method Y: "Root Causes" =

Method Z: "Root Causes" =



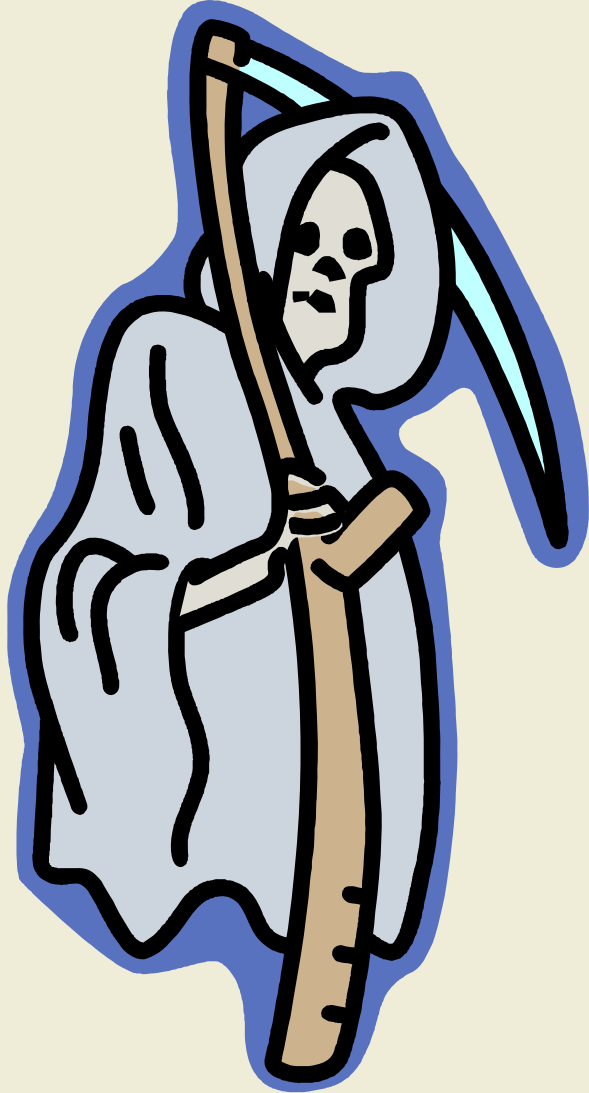


Hundreds of thousands of people all over the world are doing “RCA’s” based on millions of limiting choices splintering, diluting, and confounding the endeavor called “**root**” cause analysis....

.... lulling people into a **false sense of security**. They THINK they are actually addressing **root** causes!!

Suddenly and unexpectedly, ugly, even deadly problems continue to emerge – all caused by underlying issues that were **hiding behind the cloak** called “**root**” cause analysis.”

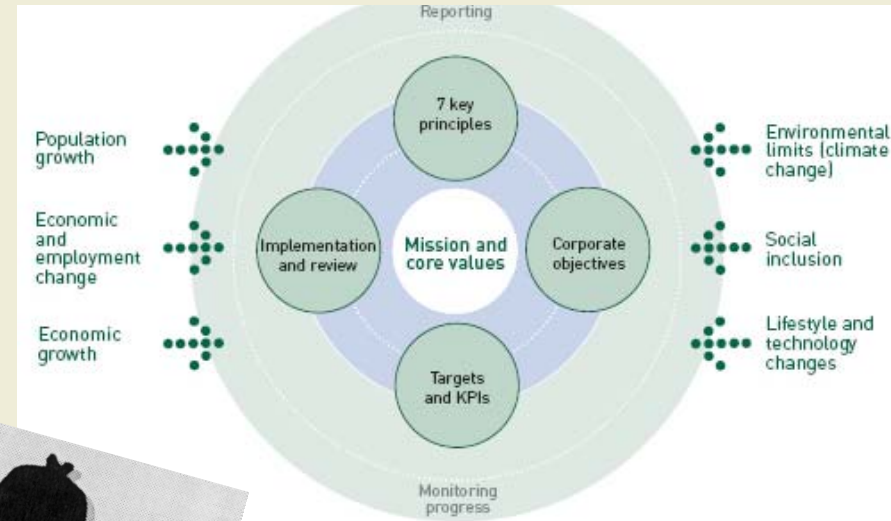
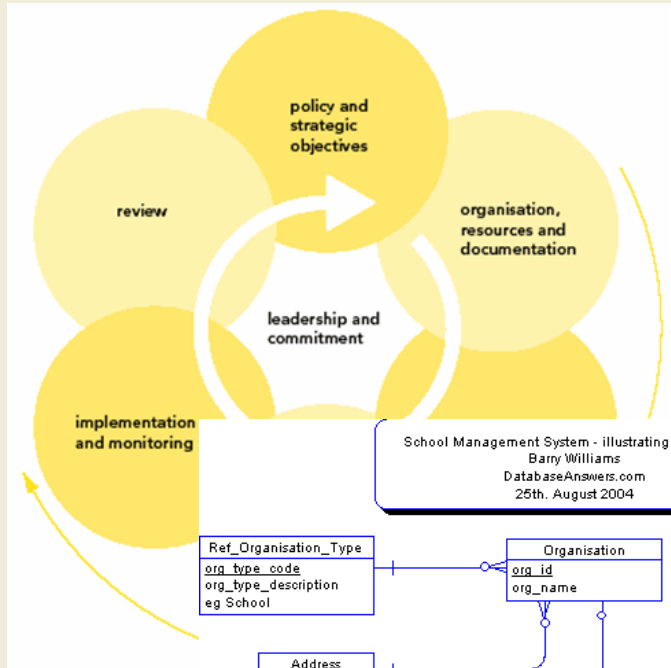
A Potentially Deadly Situation



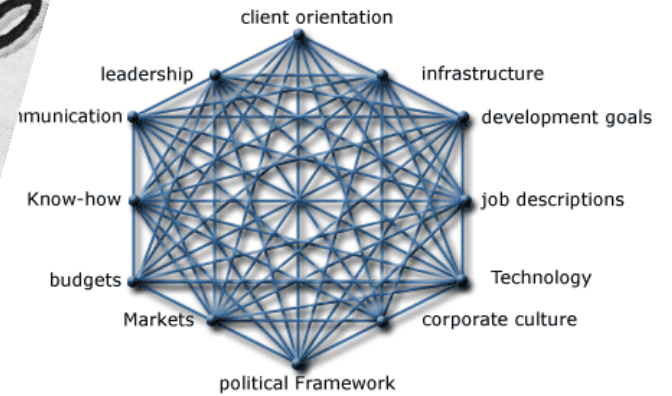
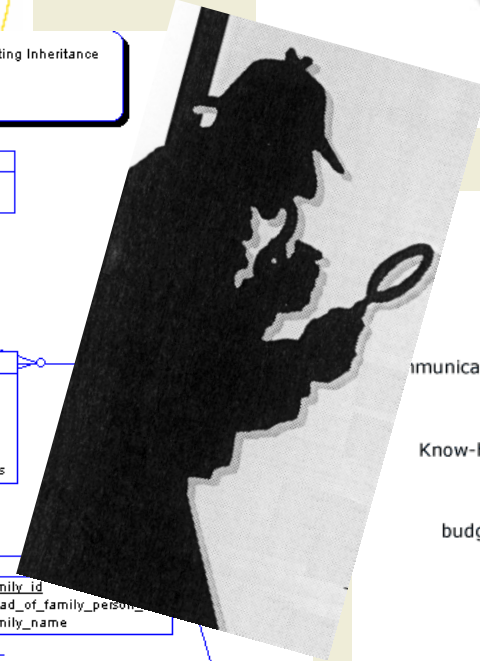
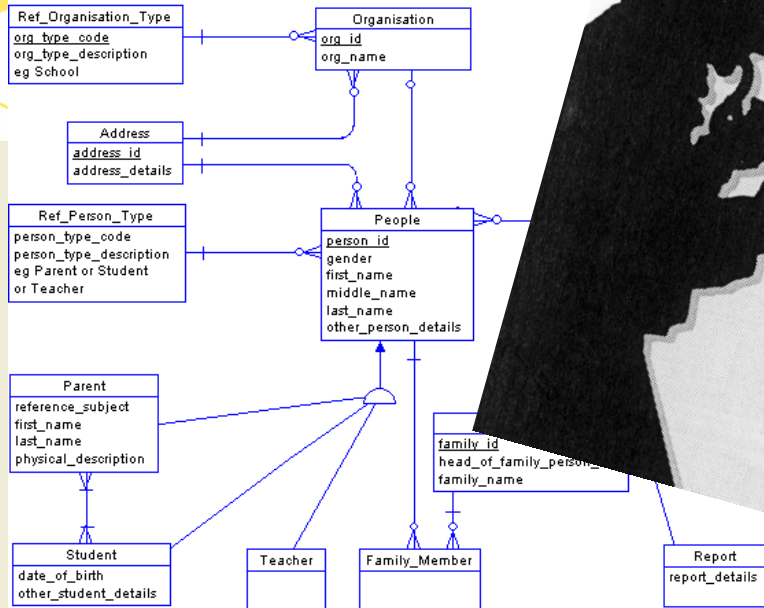
Think about it!

The endeavor we call
Root Cause Analysis
might have become one
of the deadliest **CAUSES**
of our problems!

As Human Beings, we Love to Create.

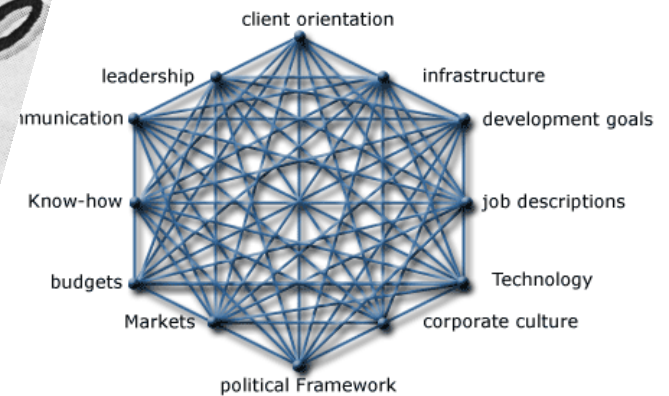


School Management System - illustrating Inheritance
Barry Williams
DatabaseAnswers.com
25th. August 2004



What's wrong with the design we've created?
What's wrong with the system we've created?
What's wrong with the culture we've created?

When something goes wrong...



Human Beings Cause Problems, not Designs, nor Systems, nor Culture!



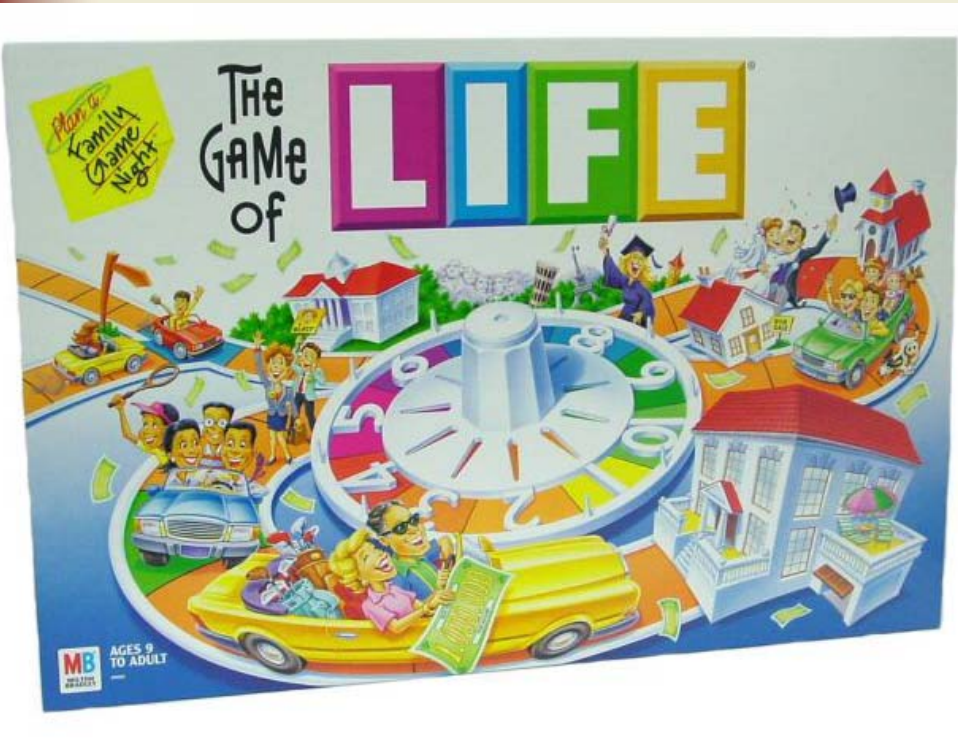
Human Beings Cause Problems, not Designs, nor Systems, nor Culture!

*Having to restrict myself to finding flaws in the “system” reminds me of the game of “LIFE.” The underlying assumption of the game is that a person has to go to college to be successful, **which of course is not true.***

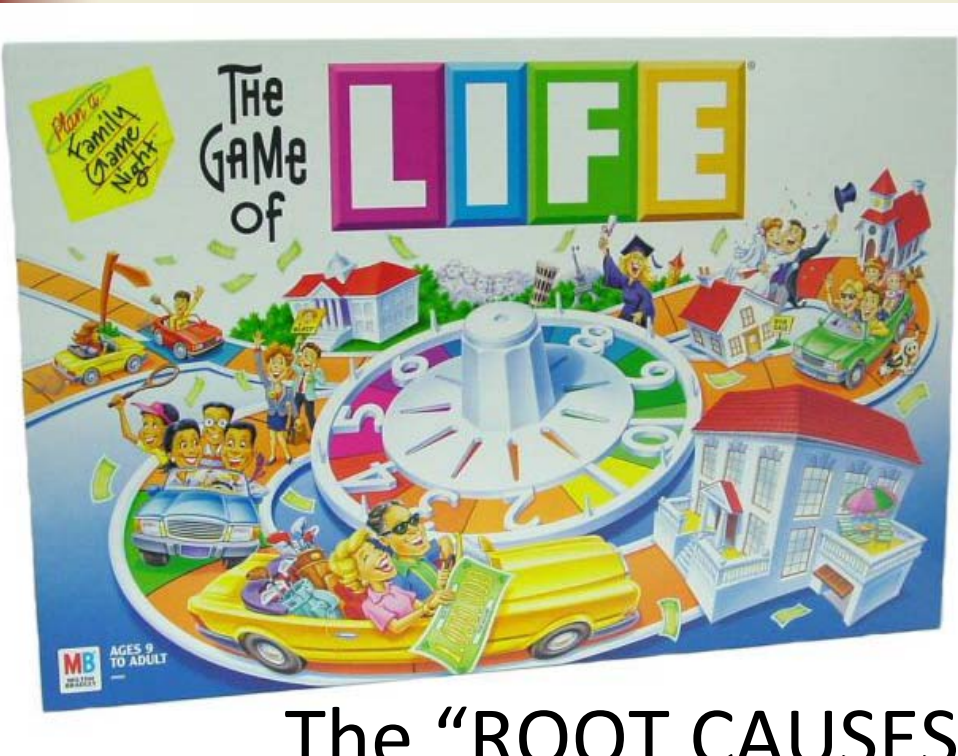
The same thing happens with investigative methods that force us to look for system-related causes.

What if the “root causes” are not system-related?

Recent RCA Class Attendee



Human Beings Cause Problems, not Designs, nor Systems, nor Culture!



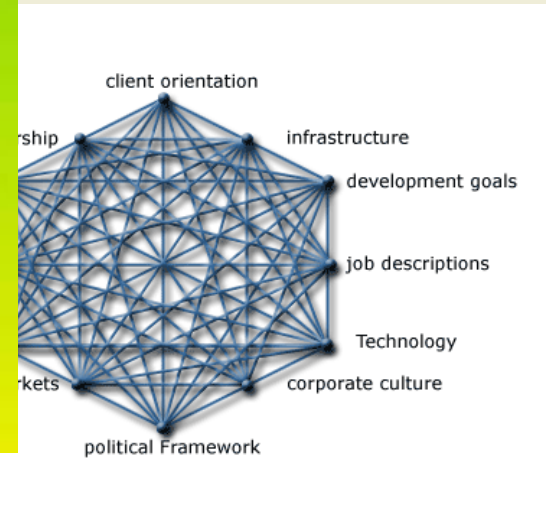
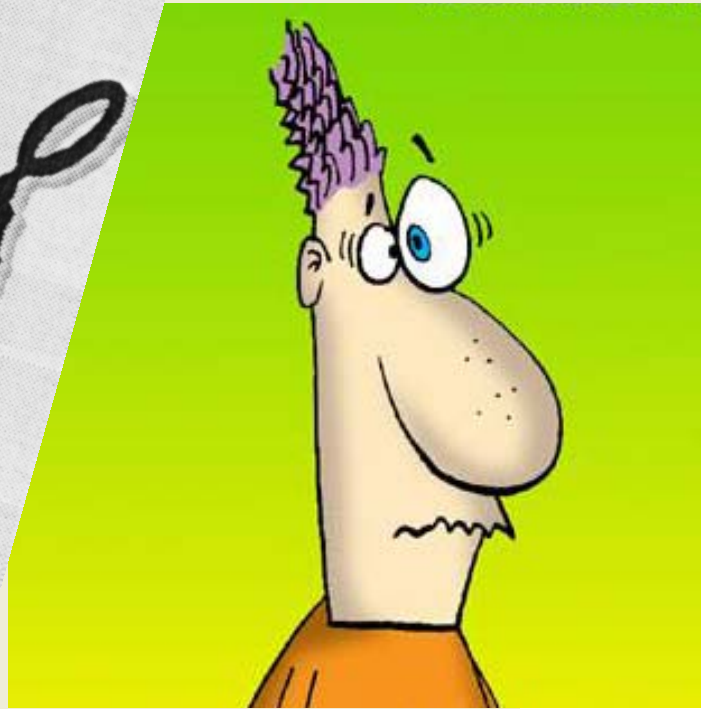
What if the “root causes” causes are not system, design, or culture-related?

The “ROOT CAUSES” of our problems are

NEVER

system, design or culture-related!

Human Beings Cause Problems, not Designs, nor Systems, nor Culture!



Human Beings Cause Problems, not Designs, nor Systems, nor Culture!

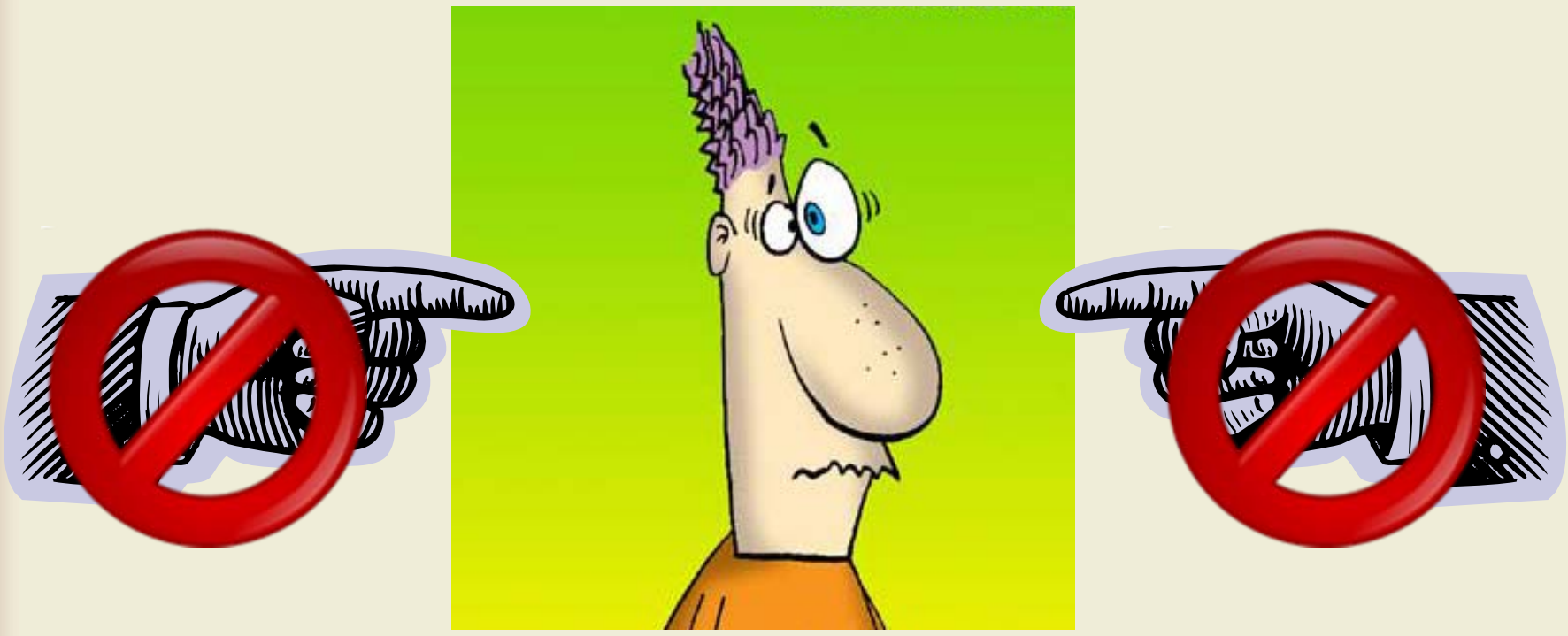
Our THOUGHTS
cause our
actions.

... Cause Analysis ought to be...

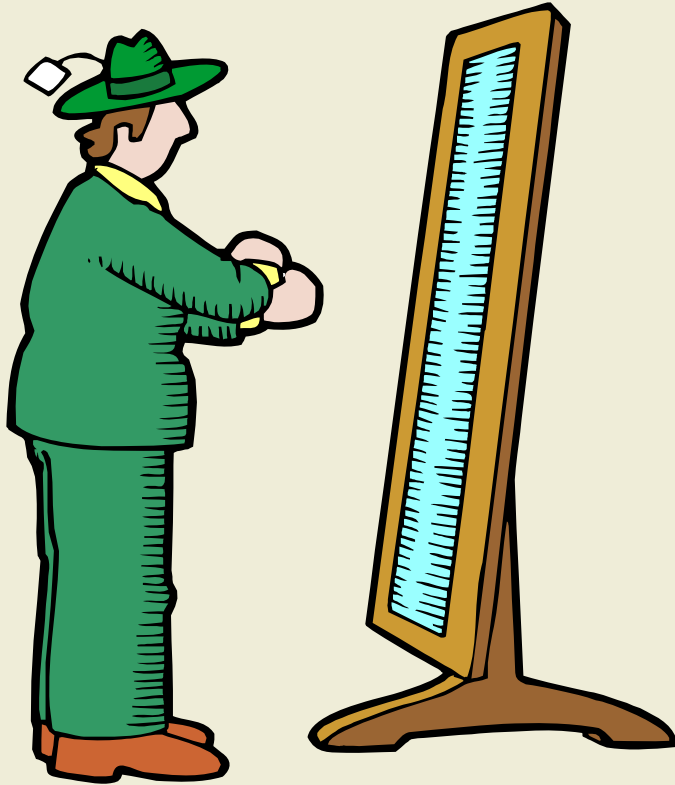


To **CHANGE PEOPLE** (the way they think)!

But this does NOT Mean a Return to the BLAME Game!



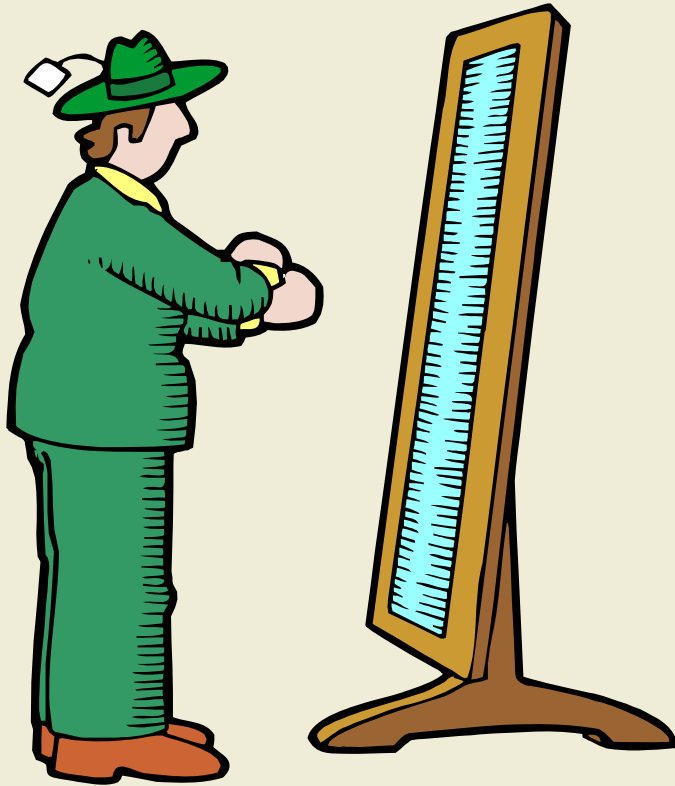
But this does NOT Mean a Return to the BLAME Game!



In response to something that has gone wrong....

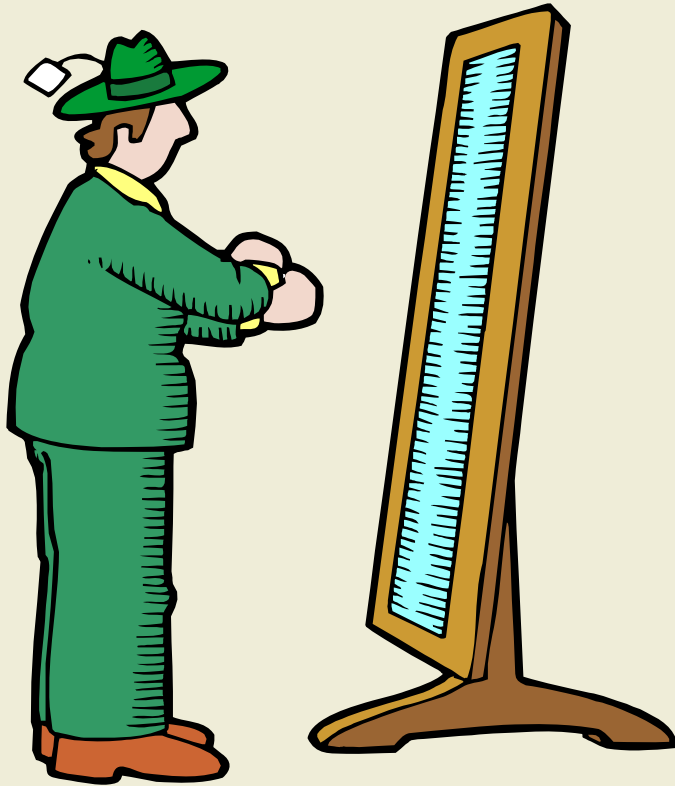
Imagine a world where everyone looked at themselves rather than pointing fingers at other people and things.

But this does NOT Mean a Return to the BLAME Game!



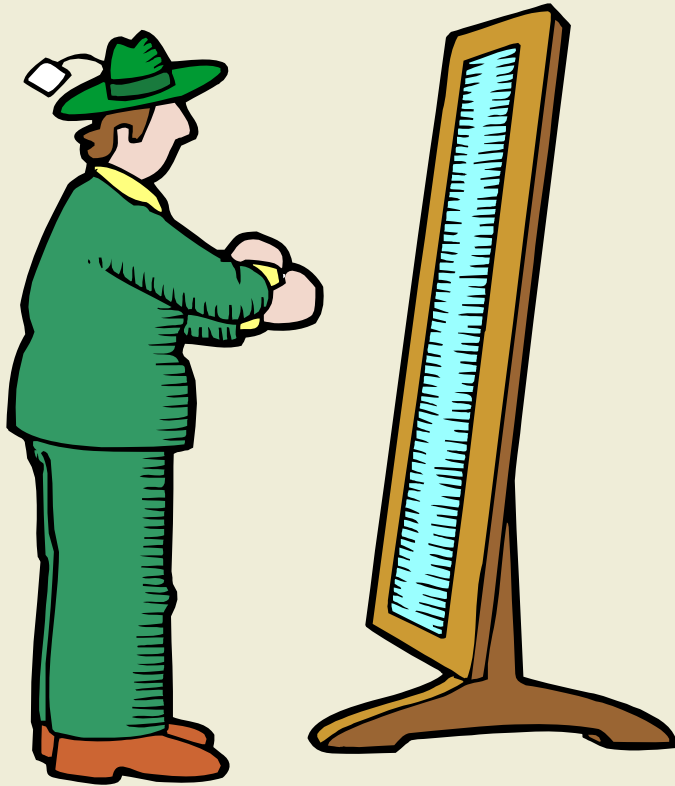
“One of the most frustrating findings of formal RCA’s is that many of the underlying causes of major incidents are known ahead of time. Warning signs almost always precede major incidents, but are neglected. Frustrating equipment, people, and systems are usually recognized, but often ignored until they result in disaster.”

But this does NOT Mean a Return to the BLAME Game!



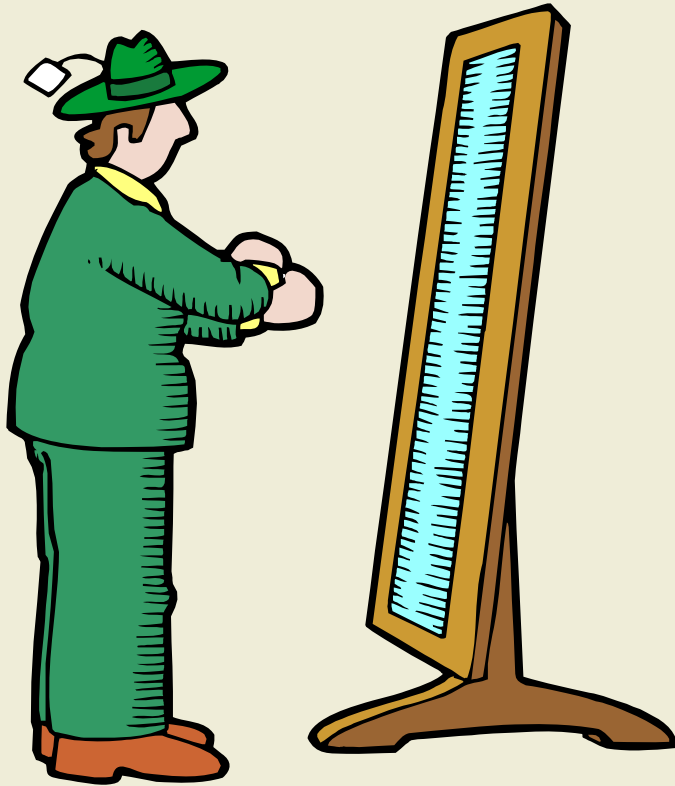
“It is people that ignore and neglect these problems. In the limit, people cause problems – ALL people. We either do things we should not have done or neglect to do things we should have done.”

But this does NOT Mean a Return to the BLAME Game!



Although most people easily see these qualities in other people, it is rare to find individuals who can see their own role in things that go wrong.

But this does NOT Mean a Return to the BLAME Game!



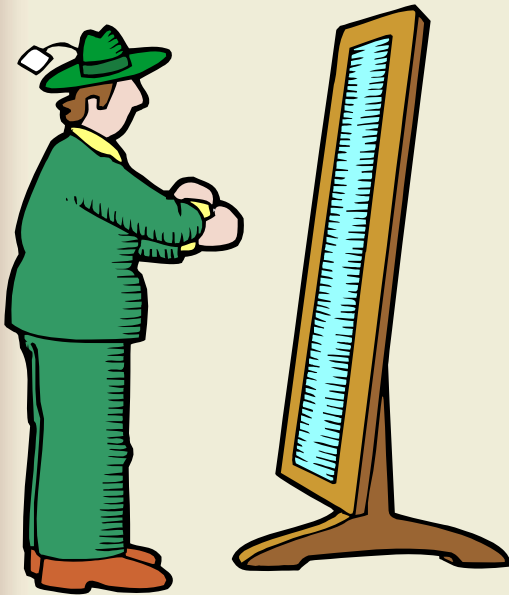
**If you ask
them to, they
will!**

Example

Summary Investigative Process:

1. An evidence team gathers, reviews, and summarizes evidence.
2. The evidence team asks themselves: “Who needs to see this evidence?” (**stakeholders**)
3. The evidence team brings these people together (**stakeholders**), and shows them the summarized evidence.
- 4.....
- 5.....
6. The leader of the evidence team asks the **stakeholders** to try to see **themselves** as part of the problem by asking them.....

Example



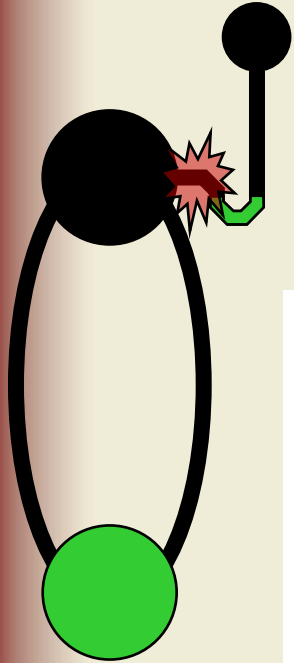
***What is it about the way you
are that contributed to this
incident?***

One stakeholder at a time,

**with all stakeholders present at the
same time,**

**lowest level (in the organization) to
highest level.**

Example



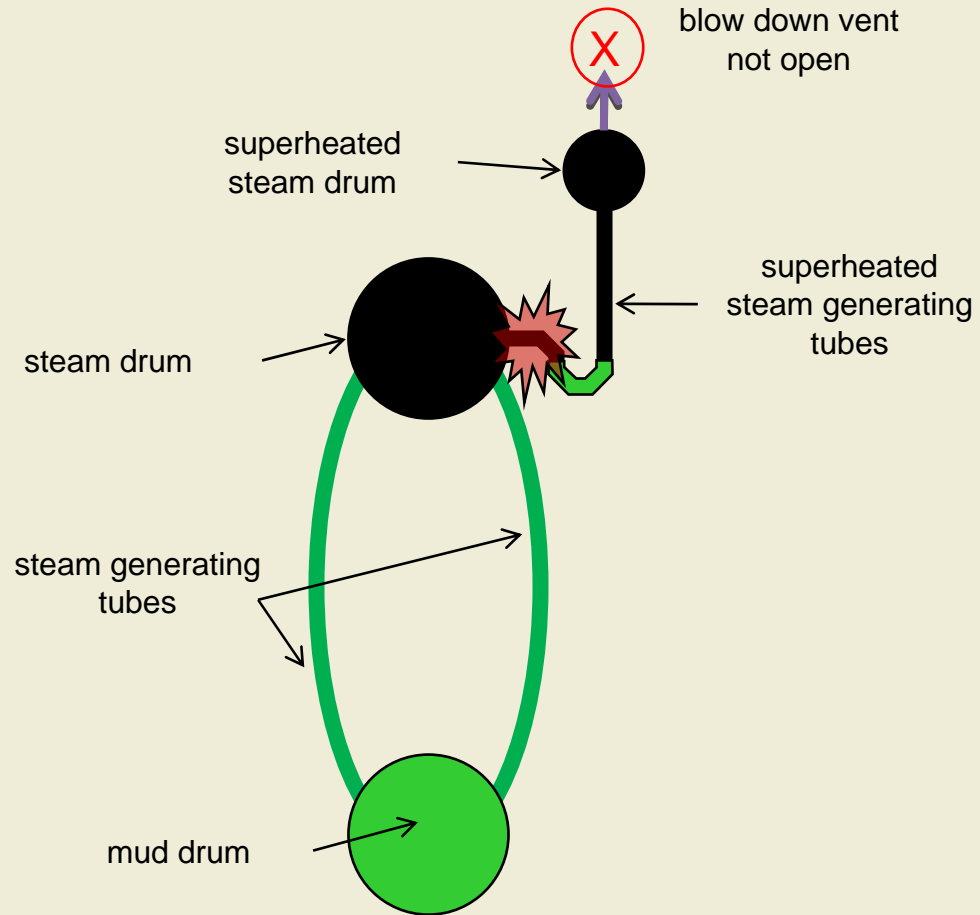
*discovered upon
evaluation of
EVIDENCE*

A refinery had to shut down one of its units because steam supply suddenly became inadequate. A superheater tube failed on startup of one boiler while another boiler was being taken out of service.

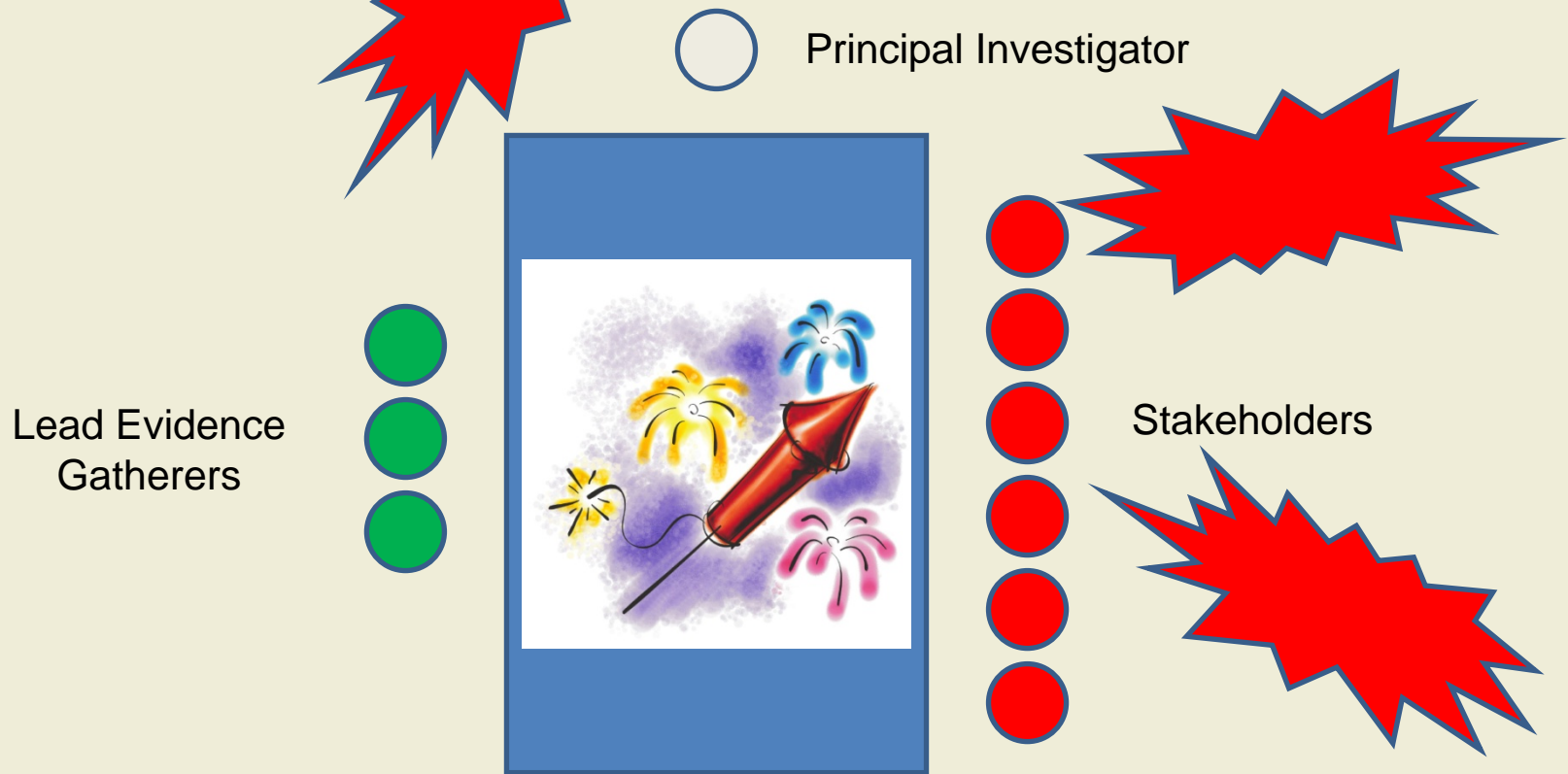
It was determined that the operators did not blow-down the superheater tubes as noted in the startup procedures.

Since the tubes were not blown down, the water in the tubes prevented normal steam-flow through the tubes, and they eventually burst due to overheating.

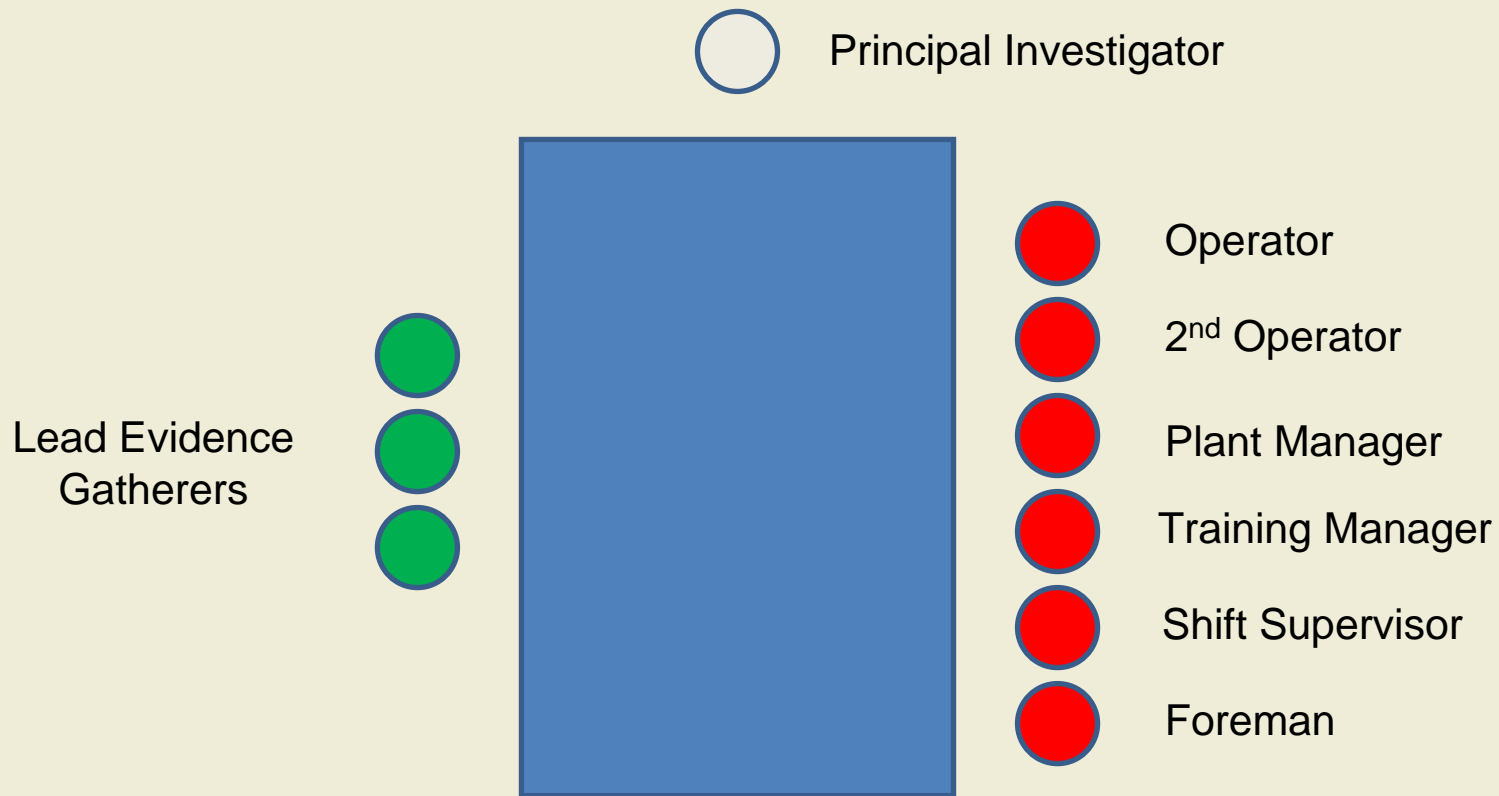
Example



Helping people see themselves as part of the problem



Helping people see themselves as part of the problem



Helping people see themselves as part of the problem



Operator



Principal Investigator

Do you remember the point in time when you decided not to blow down the tubes?

Helping people see themselves as part of the problem

Yes! At 9:00 AM on Monday morning, I reported to the Area A foreman as instructed. I am a new employee (4 weeks), and was told that this was a temporary assignment. The foreman pointed to the boiler, and told me to “blow down the tubes.”



Operator



Foreman

Do you remember the point in time when you decided not to blow down the tubes?

Helping people see themselves as part of the problem

*Wheww, that foreman is real pain-in-the-neck!
But I guess we ought to blow down the tubes.
Where's the blow-down line?*

Up there!!

*There's no room to do anything on that small
platform. I'd get 200 degree water all over me.*

*Why do we need to blow it down, anyway?
We're often asked to do things that don't seem
necessary -- this is probably one of those things.*



Operator



Principal Investigator



Foreman

Do you remember what thoughts went through your mind at this point in time?

Helping people see themselves as part of the problem

*I decided not to blow down the tubes,
and I also decided not to tell anyone.
I was afraid to tell anyone, and I didn't
think it mattered!*



Operator



Principal Investigator



Foreman

So then, what did you end-up doing as a result of these thoughts?

Helping people see themselves as part of the problem

I should have told the foreman that I didn't know how to do what he asked, and that I was afraid to do it.



Operator



Principal Investigator



Foreman

Looking back at this incident, what do you think you should have done?

Helping people see themselves as part of the problem



Operator



Principal Investigator

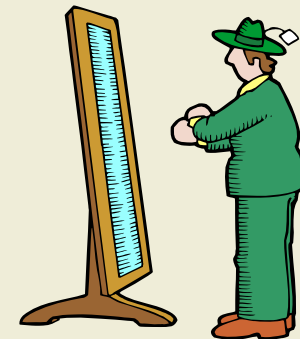
Thanks Joe. Now, one more question.

Helping people see themselves as part of the problem

- *I suppose I am too timid. I have to learn not to be so timid!*
- *I am afraid to ask questions. I cannot be afraid to ask questions if I'm going to work in a refinery.*
- *I am afraid to say "no" when I ought to say "no," and I cannot be like that anymore.*



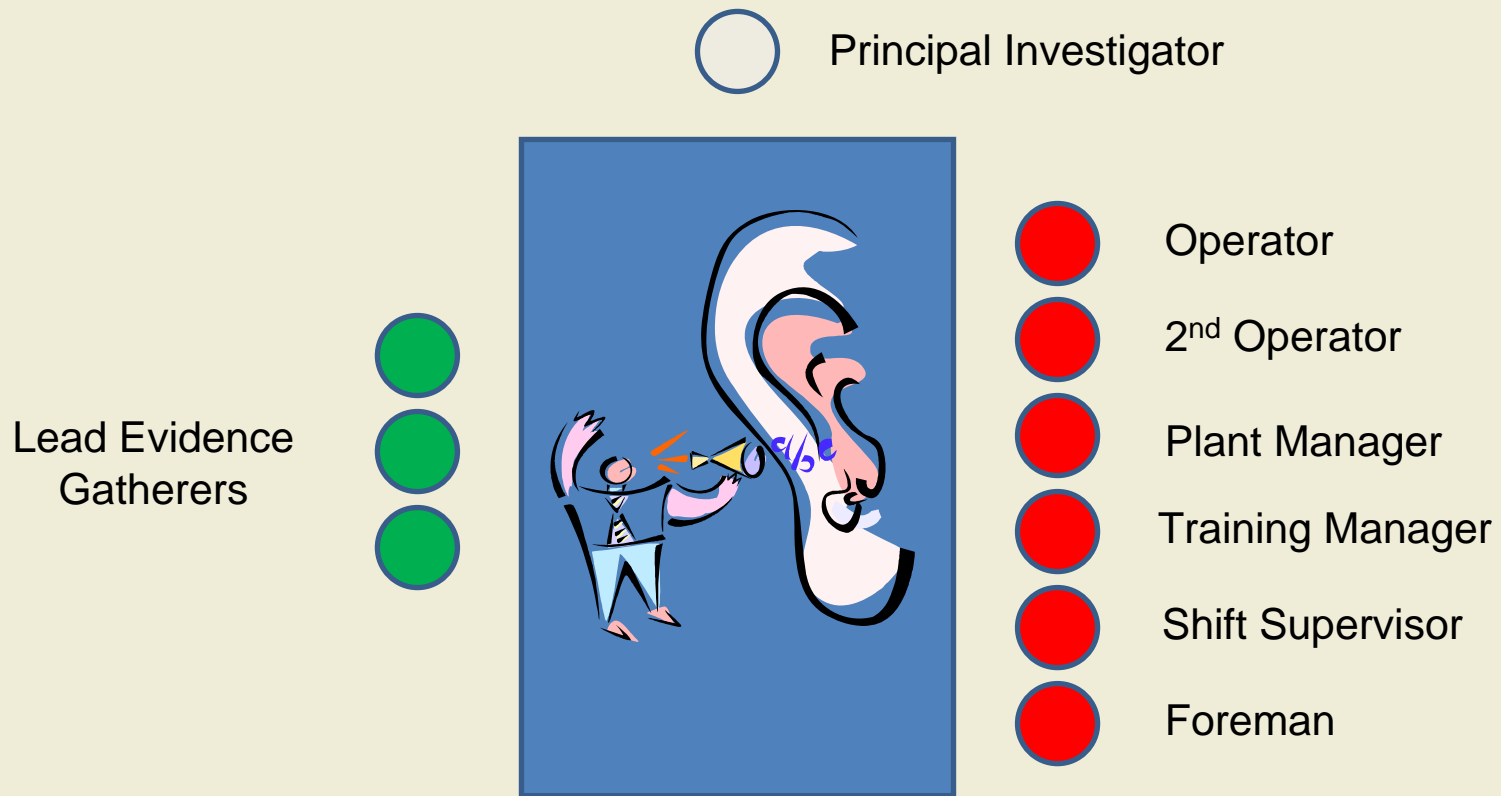
Operator



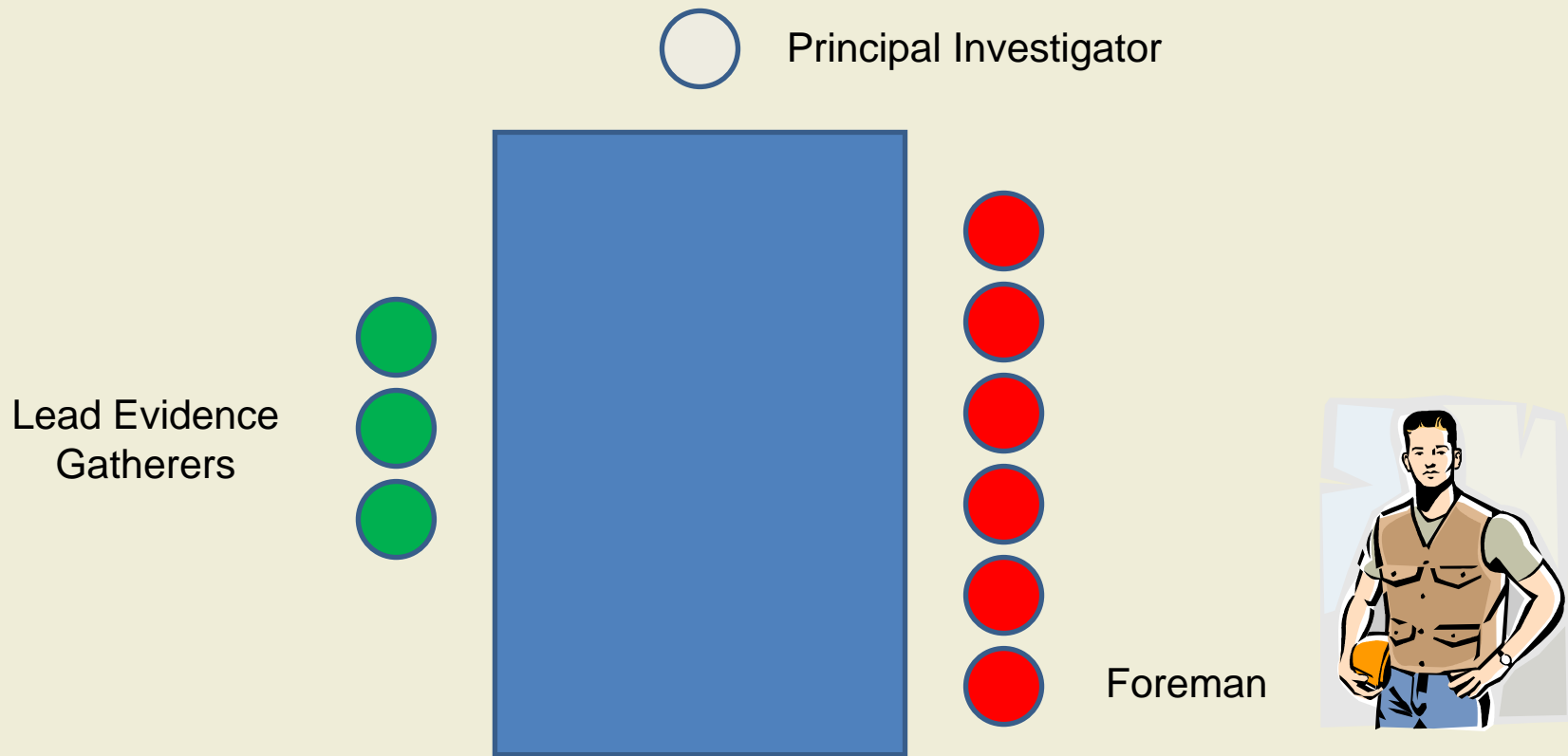
Principal Investigator

What is it about the way you ARE that contributed to this incident? Please use the word "I."

Helping people see themselves as part of the problem

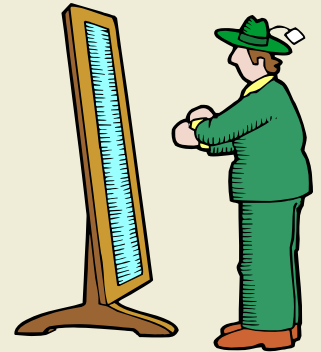


Helping people see themselves as part of the problem



Helping people see themselves as part of the problem

- *I scare some of my operators.*
- *I assume that new people coming into my area are trained to operate the equipment.*
- *I don't pay enough attention to new people coming into my area.*
- *I generally do not ask people if they have any questions. I assume they'll ask me if they don't know something.*



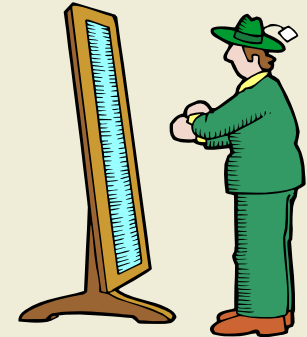
Principal Investigator

Foreman

Frank, now that you have heard all of this, I'm going to ask you the same question. What is it about the way you are that contributed to this incident? Please use the word "I."

Helping people see themselves as part of the problem

- *I turn my head with some of my supervisors that lack interpersonal skills.*
- *I know that we sometimes put people in positions where they don't know how to perform, and I have not done anything about it.*
- *I have not done anything to highlight problems that might have become invisible to us.*
- *I have not paid enough attention to our training philosophies.*



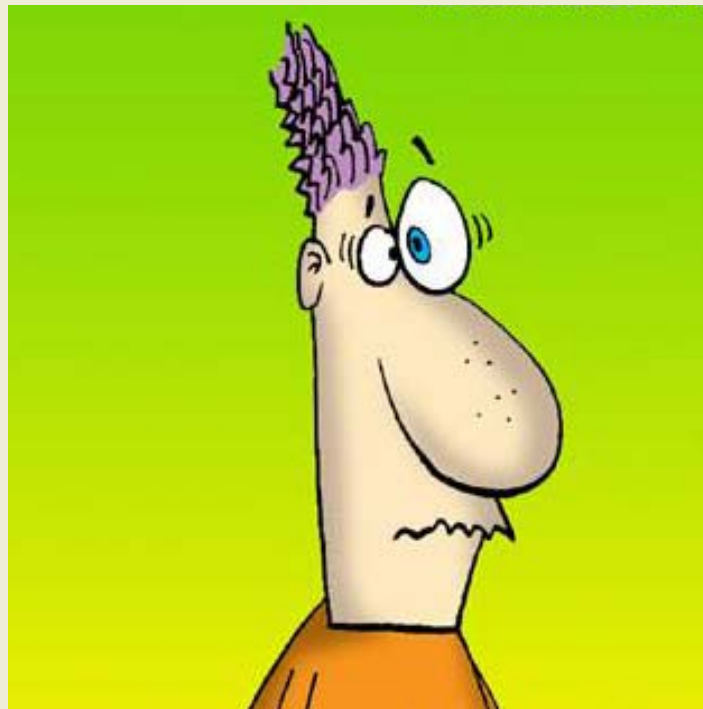
Plant Manager

Principal Investigator

John, you've heard quite a lot from each these people. You know what I am going to ask you. What is it about the way you are that contributed to this incident? Please use the word "I."

Human Beings Cause Problems, not Designs, nor Systems, nor Culture!

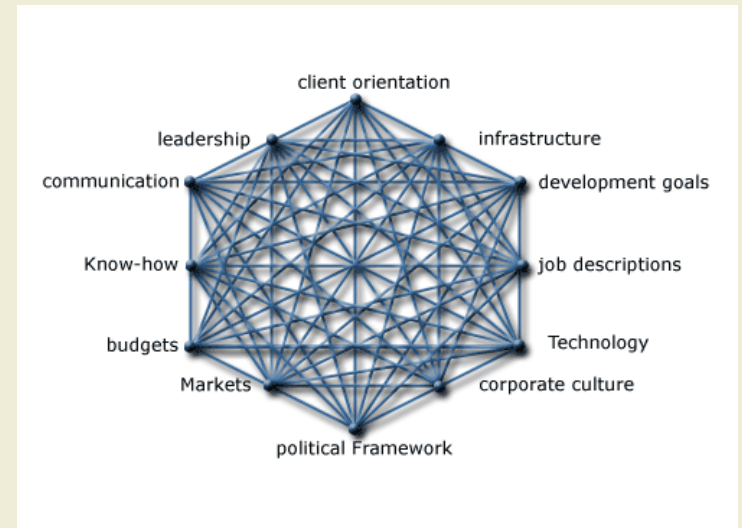
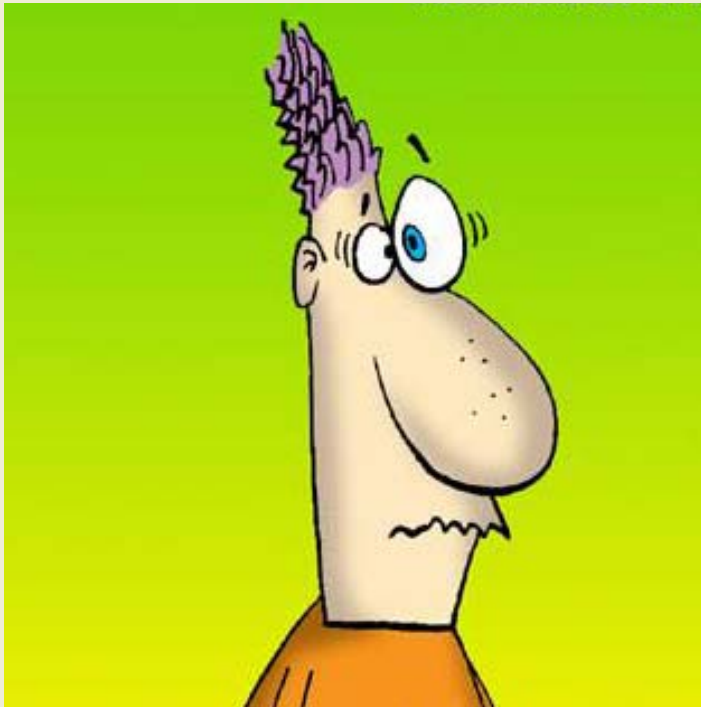
The objective of a Root Cause Analysis ought to be...



To CHANGE PEOPLE

Human Beings Cause Problems, not Designs, nor Systems, nor Culture!

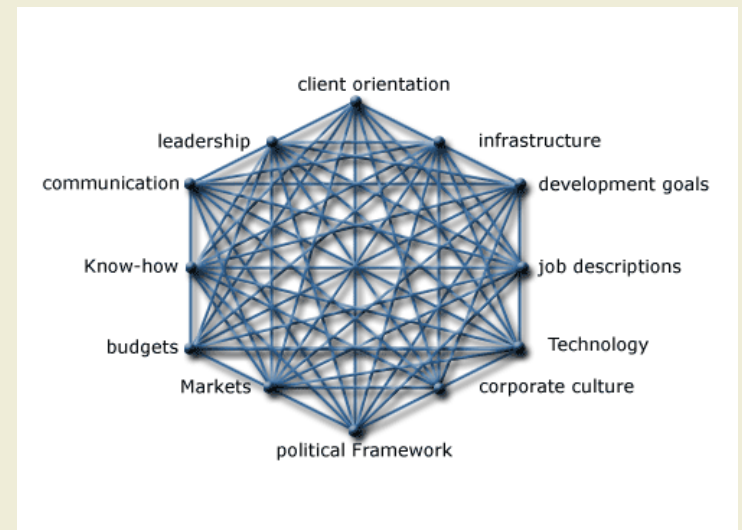
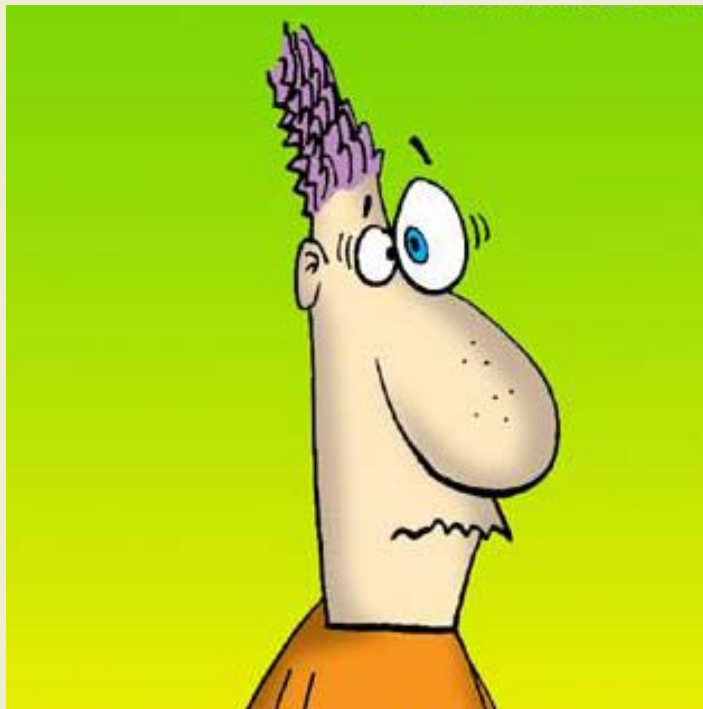
When people change,



their designs will also change

Human Beings Cause Problems, not Designs, nor Systems, nor Culture!

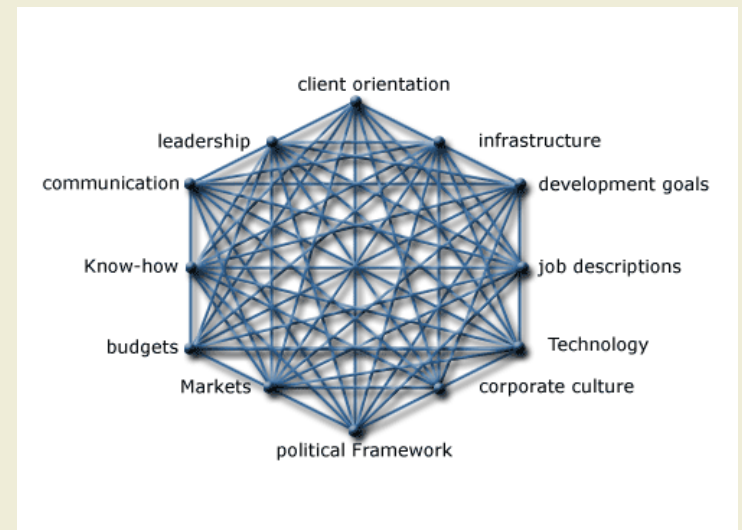
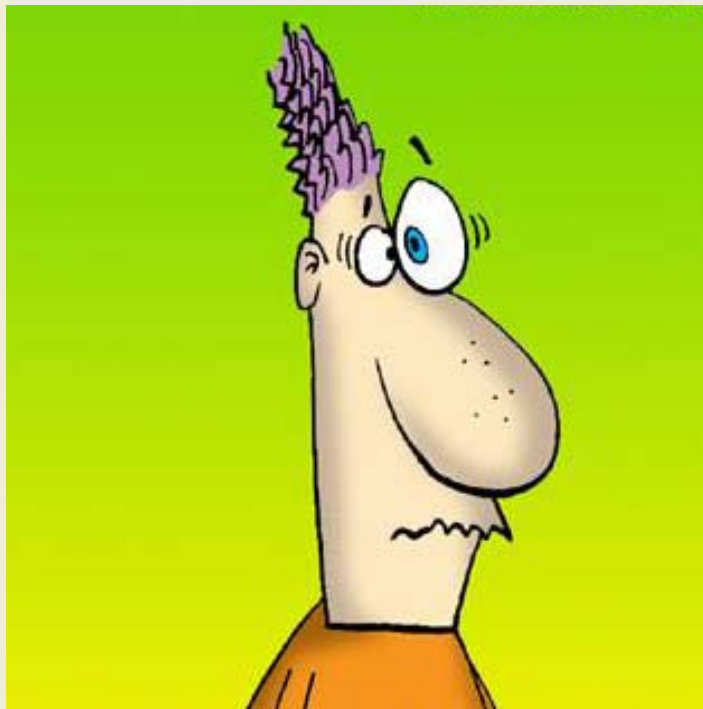
When people change,



their systems will also change

Human Beings Cause Problems, not Designs, nor Systems, nor Culture!

When people change,



the culture will also change

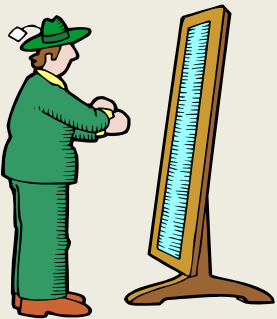
Summary



The endeavor we call Root Cause Analysis might have become one of the deadliest CAUSES of our problems.



Human Beings cause problems (all of us), not our designs, nor our systems, or even our culture.



Things that go wrong are the only thing capable of helping us answer a key question of life;
“What is it about the way I am that contributes to our problems?”

Thank You!



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Helping You Learn from Things that Go Wrong

Feedback / Contact

The Problem with Root Cause Analysis

What is a "root cause?" An 800 person forum comprised of RCA experts from all over the world tried to answer this question. They could not agree on an answer. A smaller group was formed, composed of about 10 major RCA consulting groups. They could not agree either. Several major Professional Societies have tried to agree, with the same results -- nothing!

Think about it. The causes of something that happened "today" occurred "yesterday." The causes of "yesterday's problems occurred "the day before that." In the limit, the causes of the causes can be traced back to the beginning of time.

 Because no-one really wants to trace any of our problems all the way back to the beginning of time, each person, consultant, or organization defines "root cause" differently. **The PROBLEM with Root Cause Analysis is that it has become whatever people want it to be.** If you ONLY want to see problems in your "Management Systems," that's all you will see. If you ONLY want to

Welcome




Hello. My name is Bob Nelms, and I am founder of Failsafe Network, Inc. It is my hope to help you (and myself as well) learn from things that go wrong. **Things that go wrong in our lives have the unique ability of being able to teach us things that nothing else can teach.** Unfortunately, most Root Cause Analysis methods stop **FAR** short of where they ought to be focusing. It seems that most Root Cause Analysis (RCA) methods encourage people to look at **anything and everything besides themselves.**



As you explore varying Root Cause Analysis methods and approaches, note what each of these methods are trying to help you see. **Most methods will help you compare your problems with a pre-defined "perfect world."** Lists of "possible causes" are evidence of these types of methods. Was it a "procedural flaw?" Maybe you didn't have sufficient "barriers" in place. Or perhaps "inadequate training" was the "root cause."

Root Cause Analysis is for EVERYONE!

if Root Cause Analysis (or RCA) at your site is **ONLY** something performed by an elite group of specialists on major problems using sophisticated investigative methods, something is wrong.

Your RCA's ought to be revealing that it's the **SMALL** things that matter. **UNRESOLVED** small problems cause big ones. We need to be learning **MUCH MORE**  from our unresolved small problems. What is it about OURSELVES that allows unresolved small problems to exist?

It's okay to **START** by investigating large problems so that you can discover the tie between unresolved small and large

C. Robert (Bob) Nelms

www.failsafe-network.com