Influencing Behaviors to Improve Safety Performance

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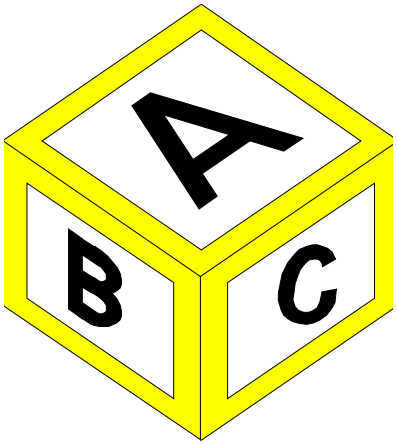
Understanding Behavior Influence

ABC Model

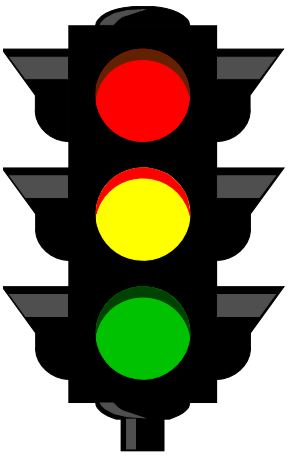


Activators
(Antecedents)

Behaviors

Consequences

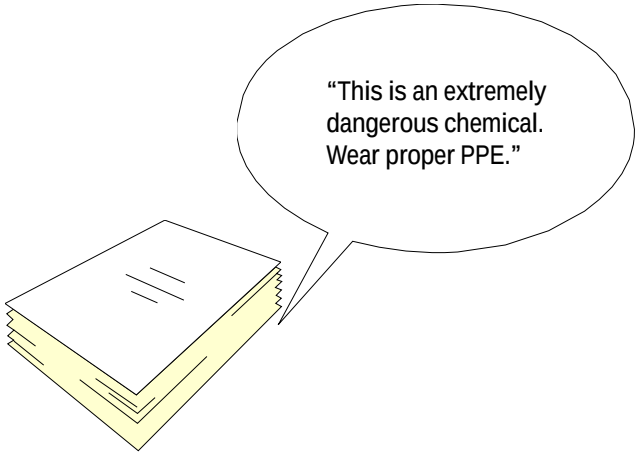
Activators



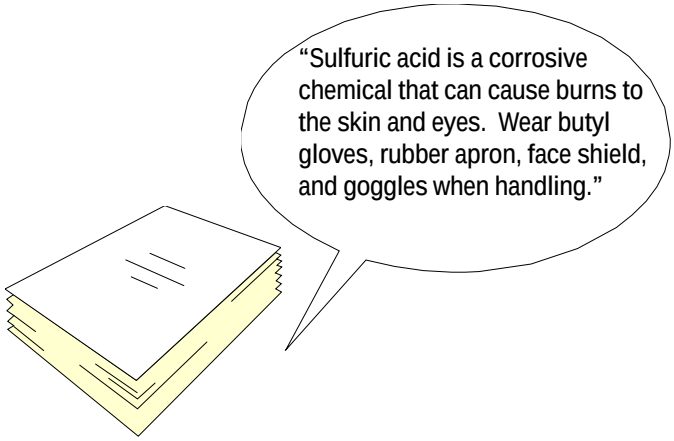
An activator is a person, place, thing or event which comes BEFORE a behavior and encourages or triggers the behavior.

What are some common activators in the workplace?

Is this a strong Activator?



How about this one – a strong Activator?



Behavior

- Behaviors are observable activities
- Behaviors are predictable
- Generally only discussed when there is a problem…
- Make sense to the person at the time of observation…

Unsafe Behavior

"Unsafe behavior is normal behavior. It is the result of normal people reacting to the environment in which they work"

Reasons for Unsafe Behavior

Typically, employees don't do things knowing they will result in injuries. Then why do they get hurt?

- Skill deficiency
- Skills not used often enough
- Failure to recognize warning events/near misses
- No positive consequences for safe behavior
- Unclear management expectations
- Physical obstacles
- Employees believe *they* will not be hurt

Consequences

- Consequences are anything that directly follows a behavior:
  - Injury
  - Discipline
  - Praise
  - Thanks
  - Money
  - Satisfaction

ABC Model

- Activator
  Telephone rings
- Behavior
  Answer the phone What Controls Behavior?
- Consequence
  Talk to the caller

Activators Influence Behavior

Consequences Control Behavior

Strength of Consequences

- **TIMING** **Soon / Later**

  A consequence which follows soon after a behavior is stronger than one which occurs later

- **CONSISTENCY** **Certain / Uncertain**

  Consequences that are delivered consistently after a behavior are stronger than those that are uncertain or unpredictable

- **SIGNIFICANCE** **Positive / Negative**

  Positive consequences are stronger than negative ones

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		Strongest
• Soon / Certain / Positive	SC+	▲
• Soon / Certain / Negative	SC-	¦
• Later / Certain / Positive	LC+	¦
• Soon / Uncertain / Positive	SU+	¦
• Later / Uncertain / Positive	LU+	¦
• Soon / Uncertain / Negative	SU-	¦
• Later / Certain / Negative	LC-	¦
• Later / Uncertain / Negative	LU-	¦
		Weakest

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The most powerful consequences are…

SC+

Soon / Certain / Positive

Is the fear of being injured a strong consequence?

No…**LU-**

Is the fear of discipline a strong consequence?

No…**LU-**

ABC Model – Practical Example

Behavior We Want to Encourage

Wearing a face shield while handling acid

ABC Model – Practical Example

Activators that can influence the behavior

- Availability of a face shield
- Peer pressure from co-workers that do or don't wear a face shield
- Understanding through training of how the face shield can protect you
- Cleanliness of face shield
- Perception of injury risk

ABC Model – Practical Example

Consequences from the employee's perspective

- Threat of Injury LU-
- Threat of Discipline LU-
- Perception that it will save time not having to find SC+
- Perception that it will be more comfortable not to wear a face shield SC+
- Perception that it will be more convenient not to wear a face shield SC+
- Perception of better vision without the face shield SC+

Safety Feedback

- Providing safety feedback is the responsibility of EVERYONE
- We can use feedback used to reinforce safe behavior
  - Use positive feedback as an SC+ consequence
  - Safe behavior will not continue without positive feedback
  - Positive feedback strengthens the culture
- We can use feedback used to correct unsafe behavior
  - Never intended cause guilt
  - Intended to improve the working conditions
  - Can uncover hidden barriers
  - Unsafe behavior will continue without feedback

Behavior Change

- There are some recent contradictory conclusions out there, but many believe that unsafe behavior contributes to more than 90% of all injuries.
  - Not a cause by itself. There may be systemic and cultural issues at play, but ultimately, an employee chooses to do a behavior or not. Those other issues become part of the activators and consequences
- If unsafe behaviors contribute to injuries, then it makes sense to find ways to encourage employees to make better choices.

Behavior Change

- Behavior change requires a systematic approach:
  - Set clear expectations *ACTIVATOR*
  - Define success *ACTIVATOR*
  - Identify the crucial activities, behaviors, and metrics *ACTIVATOR*
  - Monitor performance metrics and crucial activities *ACTIVATOR / CONSEQUENCE*
  - Provide feedback and recognition *CONSEQUENCE*
  - Apply accountability *CONSEQUENCE*

Safety Culture - Definitions

- *The way safety is perceived, valued and prioritized in an organization. It reflects the real commitment to safety at all levels in the organization.*
- Also, how an organization behaves when no one is watching

Let's look at a safety culture failure…

Where were you….

January 28, 1986

There are certain dates
that stick with a generation

September 11, 2001

November 22, 1963

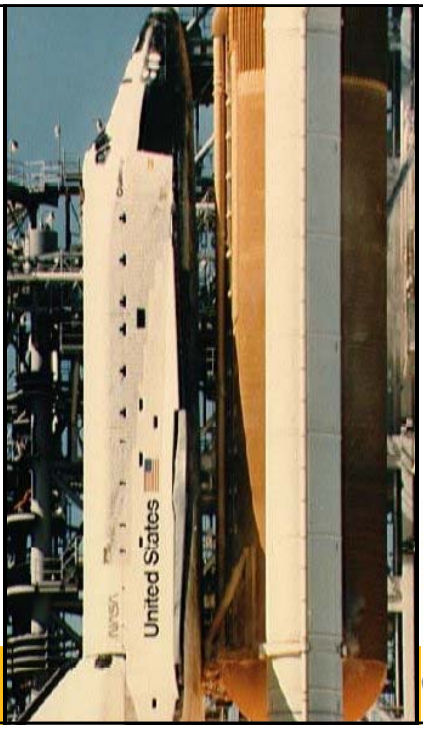
On January 28, 1986, people around the world were tuning in to watch the launch of the 25th space shuttle into space. Mission 51-L, the tenth flight of Space Shuttle Challenger was **special**. Do you know why?

It was the first time a civilian, a schoolteacher no less, was going into space. Christa McAuliffe, a high school teacher, was chosen from some 11,000 applicants to the Teacher In Space Project to become a member of the crew flying aboard the Challenger.

Krista and the rest of the crew to be on board STS-51L were ready to go. They had trained well and worked hard to get to launch. Their objectives were many but included: 1) the deployment of a Tracking Data Relay Satellite, 2) observation of Halley's comet, and broadcast of lessons for students for the Teacher in Space Project.

Ready to go…

- 11:38 AM EST
- Kennedy Space Center in Florida
- Several delays previously
- Coldest day that NASA had ever launched.



11:38 AM
EST

The crew of the Challenger perished in little more than their first minute of what was to be a 6 day 34 minute mission.

Note: The crew was Mission Specialist Ellison S. Onizuka, Pilot, Mike Smith, Teacher in Space Participant, Christa McAuliffe, Mission Commander Dick Scobee, Payload Specialist Greg Jarvis, Mission Specialist Ron McNair, and Mission Specialist Judy Resnik

"We will never forget them, nor the last time we saw them, this morning, as they prepared for their journey and waved goodbye and 'slipped the surly bonds of Earth' to 'touch the face of God'" – Ronald Reagan

"We will never forget them, nor the last time we saw them, this morning, as they prepared for their journey and waved goodbye and 'slipped the surly bonds of Earth' to 'touch the face of God'" – Ronald Reagan

An accident…an unplanned event? What went wrong?

The investigation into the explosion of Challenger pointed to equipment difficulties. When O-rings designed to seal the joints of the solid rocket boosters failed, fuel leaked and set off a chain of events that destroyed Challenger and claimed the lives of the seven (7) crew members on board. That was a day that most of us will always remember.

There is, however, more to the story of Challenger.

"…people from the highest ranking NASA officials to shuttle astronauts to engineering contractors to the American public at large – succumbed to *normalization of deviance, a* contributing factor to the explosion of Challenger."

- Colonel Mike Mullane, retired Space Shuttle Astronaut

What?

“Normalization of deviance”

A life-threatening disease that can readily creep into the workplace and ultimately lead to disaster. This workplace illness gains footing when people in the workplace become complacent to the responsibilities they own to achieve then maintain a safe, productive workplace.

Normalization of deviance is…

A behavior of accepting poor practice to the point that the poor practice becomes perceived as the norm.

"Prove it safe, or we won't launch."

-NASA tradition

But on or before January 28, 1986, that tradition was put aside.

Factors contributing to the Challenger disaster:

- The decision was made to launch again with no design modifications of the O-rings in spite of the fact that inspection of the Solid Rocket Boosters following the previous 24 launches revealed 13 occasions when O-ring wear was unacceptable.

Factors contributing to the Challenger disaster:

- The decision was made to launch in spite of concern that the O-rings could be affected by the cold weather… January 28,1986 was 15 degrees F colder than the temperature at launch for any other mission.

Factors contributing to the Challenger disaster:

- The decision was made to launch in spite of the warnings by contractors that there was concern about the performance of the O-rings during launch in cold temperature.

Factors contributing to the Challenger disaster:

- Astronauts ultimately accepted the design of the spacecraft with no provisions for escape of the crew in the event of a problem.

Factors contributing to the Challenger disaster:

- Astronauts accepted the inclusion of civilians in missions. Although there was much discussion among themselves that no one without an assignment to the crew that served a real purpose should fly, no one had the gumption to break ranks and speak out against what the astronauts saw as a public relations ploy.

Factors contributing to the Challenger disaster:

etc., etc., etc.

Someone…anyone…following the tradition of: "prove it safe, or we won't launch" would have made January 28, 1986 a day like any other day.

- At this point, some of you might be thinking, *"How could NASA let this happen? They should have seen it coming!"*
- With Challenger, "normalization of deviance" crept in. It gained footing when people became complacent to their responsibilities. Often, no symptoms of the disease are readily evident.
- Without even realizing it, standards are lowered or you settle for less. We rationalize our behavior by saying *"I'm just too busy!"* or *"No one seems to care…"* or *"It is no big deal… I've done it like that a thousand times."* Sound familiar?

The Cure: A Strategy for Full Recovery

- The only change you can truly affect is change within yourself.
- Let others see the change.

Be an example of the change

- The first step of treatment is to accept the fact that **the only change you can truly affect is change within yourself**. Are you committed to safety. Do you start work tuned in for safety? Do you look at the workplace to consider whether it is safe or unsafe? Would you notice if the work environment has changed? I'll bet that many of us come into the workplace in autopilot. Although we're here…we're really not here. We go through the motions.

- The next step of the treatment then is to demonstrate those changes within you. Have you considered the influence you may have on others? Many of your co-workers take the cues from you. Let them see the change.

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The Cure: A Strategy for Full Recovery

- Recognize the symptoms of "normalization of deviance" and intervene early.
  - Comments like "Don't worry about it!" or "What's the harm?"
  - Casual dismissal of issues that others appear to think are really important.
  - Belief that Safety is okay in the workplace since there have been no incidents…no recordable accidents.

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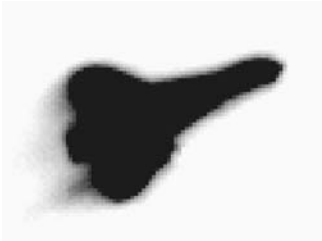
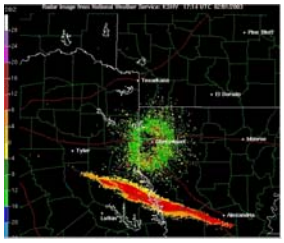
So, NASA fixed the problem…right?



Columbia at approximately 8:57. Debris is visible coming off from the left wing (bottom).



Columbia debris (in red, orange, and yellow) detected by National Weather Service radar over Texas and Louisiana.

Columbia Accident Investigation Review Board
Findings and Recommendations on Space Shuttle Disaster
August 26, 2003

"Accident was not a random event"

Immediate Causes

- A piece of foam insulation that weighed **3 lbs**. hit and breached the shuttle wing at **545 mph** during launch.
- The breach allowed hot air to melt the wing structure during re-entry resulting in shuttle break up and disintegration.
- Why not stop here?

Root Causes

- Compromises to gain budget approval
- Fluctuating priorities
- Scheduling pressures
- Resource constraints due to budget cuts
- Loss of technical and safety experience
- Reliance on past successes
- Not sound engineering and analysis
- Lack of open communication
- Management only wanted good news – not reality

"NASA will lose more shuttles and more astronauts unless it transforms its 'broken safety culture'"

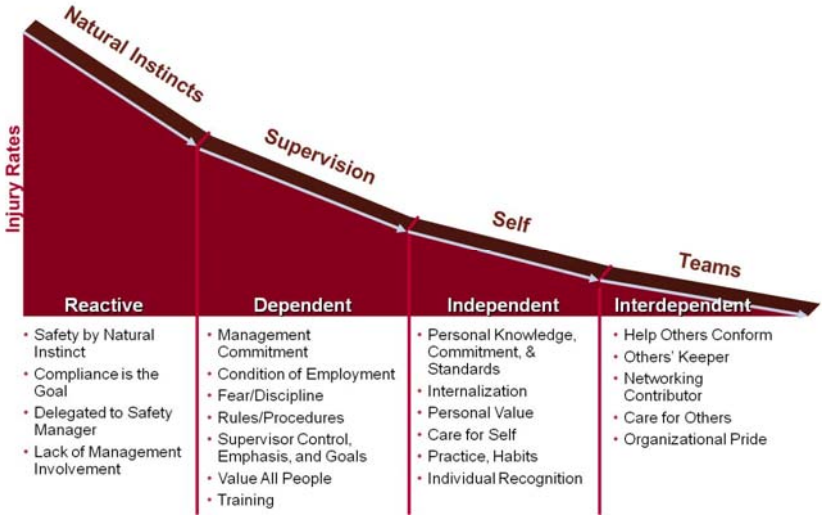
New York Times - August 27, 2003

Parallels With Industrial Incidents

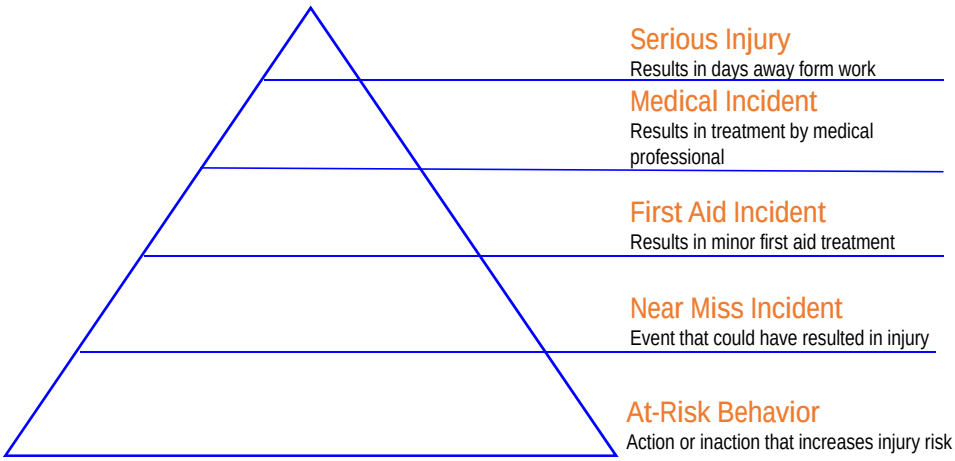
How many of these sound familiar?

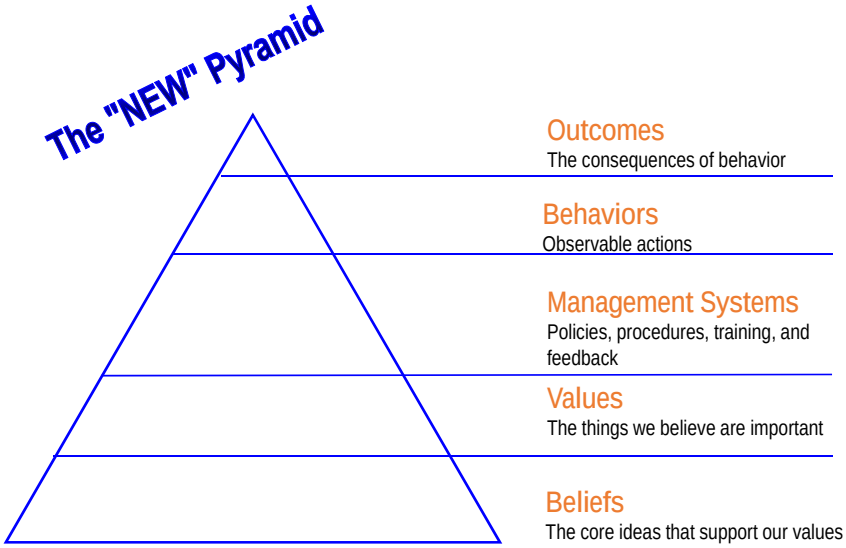
- Financial constraints
- Reductions in experienced personnel
- Failure to recognize and correct warning events / near misses
- Dependency on accident history rather than risk
- Loss of sound design, engineering, maintenance, and safety practices

How Do You Drive a Culture Change?



Traditional Safety Pyramid





Questions?

If anyone needs to contact me for questions, please email at:

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