# The Human Dynamics of Safety:
# 20 Safety-Management Errors with Simple Solutions

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## Introduction

These days, almost every presentation on safety leadership or management includes information about psychology (e.g., people's attitudes, personality, and/or behavior) and culture (e.g., the interpersonal context of the workplace). As a university professor of psychology for 43 years, I view this burgeoning interest in the human dynamics of injury prevention to be extremely encouraging.

However, it's discouraging and disappointing to see so much inaccurate information presented about people and their culture. As a result, a number of errors related to managing the human dynamics of safety are consistently made, and these can limit the beneficial impact of any safety-management process calling for authentic engagement of employees.

This paper identifies 20 common errors of safety management and specifies ways to correct each. The rationale for each solution is given, along with supportive research available and reference to relevant literature.

## 1. Asserting "All Accidents Are Preventable"

Words shape our feelings, expectancies, attitudes and behavior.[1] How you talk about something influences how others feel about it, especially yourself. In other words, our verbal behavior affects our attitudes and beliefs, and these in turn determine more behavior. Question: Does your safety-related language increase or decrease employee involvement?

Have you heard the phrase, "All accidents are preventable?" Do you realize why this is an oxymoron or a contradiction of words? First, the word "accident" implies chance or lack of control. This word should be stricken from a safety manager's vocabulary because its use supports the notion that personal injuries are not under our total control. Thus, the word "accident" makes this popular phrase an oxymoron.

Consider the impact of even saying "All *injuries* are preventable." This implies we know enough today to prevent all injuries (formerly called accidents). This could make the injured party feel like a real "jerk," thinking, "We know enough to prevent them all, yet I got one." This could stifle injury reporting and analysis with the rationale, "If they already know enough to prevent this, they don't need my input."

Of course, some injuries and illnesses do occur without our control.  In other words, we sometimes don't know enough to prevent an injury or disease (e.g., cancer), and thus we need to learn through research and open communication.  Besides "accident," many other words used by safety managers stifle the conversations needed to learn.  For example, consider the following pairs of terms or phrases which refer to the same thing.  Which ones are more likely to encourage authentic engagement among the listeners and potential participants?

| | | |
|---|---|---|
| "behavior modification" | or | "behavioral safety" |
| "occupant restraint" | or | "safety belt" |
| "air bag" | or | "safety cushion" |
| "priority" | or | "value" |
| "safety manager" | or | "safety leader" |
| "compliance" | or | "commitment" |
| "peer pressure" | or | "peer support" |
| "program" | or | "process" |
| "training" | or | "coaching" |
| "accident investigation" | or | "injury analysis" |
| "mandate" | or | "expectation" |
| "near miss" | or | "close call" |
| "incident" | or | "injury" |

## 2. Setting "Zero Accidents" as a Safety Goal

Included among W. Edwards Deming's 14 points for quality transformation are "eliminate management by objectives, eliminate management by numbers, numerical goals…eliminate slogans, exhortations, and targets for the work force asking for zero defects".[2]

Does this mean we should stop setting safety objectives and goals?  Should we stop trying to activate safe behaviors with signs, slogans, and goal statements?  Does this mean we should stop counting OSHA recordables and lost-time cases, and stop holding people accountable for their work injuries?

Answers to all of these questions are "yes," if you take Deming's point literally. But I think Deming meant we should eliminate "goal setting, slogans, and work targets" as they are currently implemented. Dr. Deming was not decrying the principles of goal setting, management by objectives, and activators; rather, he was criticizing the current corporate use of these principles. Substantial research supports the use of objective goals and activators to improve behaviors, if behavior-change principles are applied correctly.

Incorrect Goals
Holding people accountable for numbers (outcomes) they do not believe they can control is a sure way to produce negative stress or distress. Some people won't be stressed because they won't take these goals seriously. Experience has convinced them they cannot control the numbers, so they simply ignore the goal-setting exhortations.

What does the goal of zero injuries mean, anyway? Is this goal reached when no work injuries are recorded for a day, a month, six months, a year? Does a work injury indicate failure? And

does the average worker believe s/he can influence goal attainment, beyond avoiding personal injury?

Setting SMARTS Goals
I remember the techniques for setting effective goals with the acronym SMARTS: "S" for Specific, "M" for Motivational, "A" for Achievable, "R" for Relevant, "T" for Trackable, and "S' for Shared. SMARTS goal setting defines what will happen when the goal is reached, and progress toward achieving the goal is tracked and shared with the relevant participants for peer support.

Feedback from completing intermediate steps toward achieving the ultimate goal motivates continued progress. Of course, it's critical the people asked to work toward the goal believe the goal is relevant for reaching their vision of injury free, and they have the skills and resources to achieve it.

## 3. Proclaiming "Safety is our Number One Priority"

Everyone knows priorities change as a function of current workplace demands and these are adjusted to meet the number one priority of profit for stakeholders. Safety should become a value connected to all priorities.[3] As long as safety is a priority it is legitimate to shift its priority ranking, depending on other priorities at the time. It usually takes external forces (policy directives, special training, incentives and rewards) to boost safety's priority ranking.

On the other hand, when individuals hold safety as a value, there is never a compromise for safety. The "safe way" is linked with each of the priorities of the day, whether at work or at home.

Do we have a long way to go? Perhaps, but we *can* get there and prevent many injuries along the way by adjusting our paradigms or viewpoints toward safety.

A systems approach is necessary, which leads to a fact-finding over fault-finding perspective, a proactive rather than reactive stance, and an appreciation of continuous improvement. With these perspectives, it's possible to shift from safety as a priority to safety as a value.

## 4. Conducting "Accident Investigations" to Find a "Root Cause"

Problems with the term "accident" were addressed above, but what about "investigation"? Doesn't this term imply a hunt for some single cause or person to blame for a particular misfortune, as in "criminal investigation?" Furthermore, cause-and-effect contingencies cannot be determined from an interview or a survey. When you look for environmental, behavioral, and person-based factors contributing to an injury rather than a "root cause," people are more willing to speak up and learning is facilitated.

A common myth in the safety field holds that injuries are caused by one critical factor—the root cause. "Ask enough questions," advises the safety consultant, "and you'll arrive at the critical factor behind an injury." Do you really believe there is a single root cause of a mishap, whether a close call, damage to property, or personal injury?

Consider the interactive impact of environmental, behavioral, and person-based factors that affect safety-related performance. Environmental factors include tools, equipment, engineering design, climate, and housekeeping. Then you have the behaviors or the actions of everyone relating to the mishap. Finally, there are the personal, internal feeling states of the people involved—their attitudes, perceptions, and personality characteristics.

Given the dynamic interdependency of environmental, behavioral, and person-based factors in everyday events, how can we expect to find one root cause of an injury? An analysis, not an investigation, is needed to sort through this complex web of contributing factors.

## 5. Measuring Safety Excellence Exclusively with Injury-Rate Data

An assessment of safety excellence should include a systematic analysis of what proactive activities are accomplished regularly to prevent workplace injuries.  As indicated above, safety goals should focus on process activities that can contribute to injury prevention. Workers need to discuss what they can do to reduce injuries, from reporting and analyzing close calls to conducting safety audits of environmental conditions and work practices.  These proactive activities need to be measured and reported as leading indicators of safety excellence.

I once worked with a safety steering committee that wanted to increase daily interpersonal communications regarding safety. They set a goal for their group to achieve 500 safety communications within the following month. To do this they had to develop an efficient way to measure and track safety communications. They designed a wallet-sized "SMARTS Card" for recording communications with persons about safety; one member of the group volunteered to tally and graph the daily card totals.

Another work group set a goal of 300 behavioral observations of lifting. The employees agreed to observe each other's lifting behaviors with a critical behavior checklist (CBC) they had developed.  If each worker completed an average of one lifting observation per day, the group would reach their goal within the month.

Each of these work groups reached their safety goals within the expected time period, and as a result they celebrated their "small win" at a group meeting, one with pizza and another with jelly-filled doughnuts.

These two examples illustrate the application of SMARTS goals, and depict safety as process-focused and achievement-oriented, rather than the standard and less effective outcome-focused and failure-oriented approach implicated with injury-based goals.  More importantly, these examples illustrate an employee-driven approach to safety rather than the more typical and less effective top-down paradigm.

The workers were motivated to initiate the safety process because it was their idea – they owned the process.  And they stayed motivated to work on their safety process because, through SMARTS goal setting, they knew where they were going, they knew when they got there, and they followed their progress along the way.  Sharing their process fueled peer support, and the shared celebration of goal attainment was reinforcing.  It led to further SMARTS goal setting.

## 6. Teaching Procedures without Principles and Rationale

How many times have you heard the expression "flavor of the month" leveled at a new organizational program or process? I've heard this phrase used frequently with reference to safety programs, and in many cases the label is deserved. Consider how safety programs are typically introduced to potential participants. A corporate official (often a safety director) learns about a new safety program at a conference or in a promotional flyer and orders the appropriate materials, including workbooks, videotapes, and a facilitator's guide.

Sometimes an outside consultant or trainer is hired to teach the new step-by-step procedures to certain personnel. Then these employees demonstrate the new procedures to others while on the job, and thus a new safety program is implemented plant wide. For many, this is just another set of temporary procedures which attempt to reduce outcome numbers (recordable injuries) and make management look good. It's commonly believed the new program won't really work to reduce injuries, and therefore it won't be long before it will be replaced with another "flavor of the month."

This "flavor-of-the month" attitude occurs when people are not taught the principles or rationale behind a program. They are just trained on how to implement the new process. They are not educated about the research-based principles and rationale from which the program emanated.

When people learn the theory underlying a method, they develop their own belief system to rationalize their participation. They also realize there's more than one way to fulfill a particular mission, and they have the ammunition needed (principles and guidelines) to alter procedures as demands for refinement arise. And, when employees contribute to process improvement they develop a sense of ownership and self-motivation to sustain the process. They become self-motivated to do the right things for safety when they understand and believe in the reasoning behind a regulation, policy, process, or training program.[4]

## 7. Omitting Effective Behavior-Based Feedback from Training

Effective training requires ongoing supportive and corrective feedback regarding the relevant behaviors. When progress toward achieving a SMARTS goal is tracked and graphed for individual or group inspection, feedback is provided that can motivate continued participation in the process. Giving directional behavior-based feedback so recipients understand and accept it is key to effective coaching and performance improvement. Practice does not make perfect; only with appropriate feedback can we improve.

It's easier said than done, but it's essential to separate behavior from person factors when giving and receiving feedback. Corrective feedback is not an indictment of one's personality or an indicator of a character flaw. Feedback must not be related to an individual's attitude, motivation, professional competence, or family history.

## 8. Believing Attitude Change Must Precede Behavior Change

Which comes first – attitude or behavior? Actually, the more practical question is which should be targeted first for beneficial change – attitude or behavior? Education typically addresses "attitude" or internal and subjective dimensions of people by attempting to "think people into acting differently." In other words, educators present theory, principles, and rationale in an attempt to influence inside aspects of people – their intentions, beliefs, perceptions, or attitudes.

Training programs focus on behavior. Through role-play exercises and behavioral feedback, people practice desired target behaviors. Thus, this approach to change attempts to "act people into thinking differently." It's presumed if people act in a certain way on the outside, they will adjust their "inside" (including intention, belief, perception, and attitude) to be *consistent* with their behaviors.

The key word is "consistency." As a matter of fact both approaches (education and training) work because of our need to be consistent. Thus, it doesn't matter whether you address attitude or behavior first *if* you are successful at influencing your target.

I recommend targeting behavior first because behavior is easier to change on a large scale than attitude. In fact, psychologists know more about changing behavior than attitude because behavior is easier than attitude to measure objectively and reliably. Therefore, various intervention procedures to influence behaviors in organizational settings have been developed and refined through empirical research.

Many psychologists consider the consistency principle a weapon of influence lying deep within us and directing our actions.[5] It reflects our motivation to be (and appear) consistent. Simply put, when we make a choice or take a stand, we encounter personal and social pressures to perform consistently with our commitment.

We obtain pressure to be consistent from three basic sources: a) society values consistency within people, b) consistent conduct is beneficial to daily existence, and c) a consistent orientation allows for shortcuts in information processing and decision making. Instead of considering all relevant information in a certain situation, people need only remember their commitment or decision and respond consistently.

When people sign their name to a petition or pledge card, they are making a commitment to behave in a certain way. Later, they behave in this way to be consistent with their commitment. Safety managers can use this variation of the consistency principle to increase safety-related behavior. After a discussion about a particular work procedure, for example, the audience could be asked to make a commitment to perform the desired behavior. What kind of commitment should be requested?

A behavior-based commitment is most effective (or influential) when it's public, effortful, and perceived as voluntary or not coerced. Thus, it's more beneficial to have employees make a public rather than private commitment to perform a certain safe behavior. And, it's better to have them sign their name to a card or public declaration display than to merely raise their hands. In addition, it's very important for those pledging to follow a certain work practice to believe they made the commitment voluntarily.[5]

The reality might be that decisions to make a public commitment are dramatically influenced by external factors like peer pressure. However, if people write an internal script (i.e., self-talk) that they made a personal choice, the consistency principle is most likely to be activated by the commitment. Thus, the promoter of a commitment strategy needs to realize the influence of personal choice and make statements that allow participants to believe the commitment is not coerced and is completely up to them.

## 9. Using Financial Incentives/Rewards to Reduce Injuries

The disadvantages of basing financial bonuses on reactive outcomes like injury rate are well-known in the safety world, but financial incentives can also be problematic for proactive behavior-based programs.  Ask people what reward they would like after achieving a safety-process goal, and the popular answer will be "money".  Yes, money is the most useful reward.  It can be exchanged for almost anything.  However, it does not connect to safety. It's quickly spent, and the special way it was earned is forgotten.

The material reward in an incentive program should not be perceived as the primary payoff. Incentives are only reminders to do the right thing, and rewards serve as feedback and a statement of appreciation for doing the right thing.

More important than the type of external reward is the way it's delivered. A reward should not be perceived as a means of controlling behavior but as a declaration of sincere gratitude for making a contribution.

When a reward includes a safety logo or message, it becomes an activator for safety when displayed. Also, if the safety message or logo was designed by representatives from the target population, the reward takes on special meaning. Special items like these cannot be purchased anywhere, and from the perspective of internal consequences, they are more valuable than money.

## 10. Believing Incentives and/or Rewards Are Demotivating

*"Rewards are not actually solutions at all; they are gimmicks, quick fixes that mask problems and ignore reasons."*

*"Giving people rewards…is an inherently objectionable way of reaching our goals by virtue of its status as a means of controlling others."*

*"What rewards and punishers do is induce compliance."*

These quotes are from the book, *Punished by Rewards,* by Alfie Kohn.[6]  They reflect a popular school of thought that says people cannot be motivated by others, but can only motivate themselves. The emphasis is on self-motivation. So, as the above quotes show, external rewards are seen as doing a disservice. They are perceived as a means of controlling people.

Doing More Harm than Good
This is an issue for safety professionals to consider. What Kohn – and others such as W. Edwards Deming[7] and Steven R. Covey[8] – are saying is this: Common safety tools such as incentives, recognition, praise and penalties do more harm than good in the long run because employees view these tactics as a means of controlling their behavior. Feeling controlled, an employee's own inner motivation suffers.

I want to address some points here.  First, much research in behavioral science discredits these assertions.[9]  But it's true that self-motivation can be decreased if a motivational program is seen as an attempt to control behavior. This underscores the importance of making sure praise, recognition and other rewards are genuine.

Also, individuals or groups receiving special recognition must believe they truly earned the reward through their own efforts. When rewards are associated with one's own efforts, self-

motivation increases because the person's sense of competence at doing something worthwhile is enhanced.  But this is often not the case when rewards are based on a reduction in OSHA recordable injury rates.  Usually, employees cannot see a connection between their own behavior and a reduction in injury rates.

<u>What is Intrinsic Motivation?</u>
In my view, the "intrinsic motivation" discussed by Kohn[6] is not about something inside a person, rather it has to do with the task being performed. Let me explain: Some tasks have built-in or intrinsic consequences. Most types of athletic performance, for example, have this natural feedback. We know immediately how well we have swung the golf club or thrown the football.

Some tasks do not provide this intrinsic or natural feedback. Many, if not most, safety behaviors fall in this category. In fact, the immediate, built-in consequence of many safety practices is de-motivating. Safety gear can be uncomfortable; safety procedures can be inconvenient or slow. This is where rewards such as praise, recognition, and incentives are needed to shape and maintain safe behaviors.

The intent must not be to control people, but to help them control their own behavior for the safety of themselves and others. This is why terms such as "behavior modification," "discipline," and "enforcement" are inappropriate. They carry the connotations of outside control.

Bottom line: Behavior is motivated by consequences that are soon and certain. Self-motivation is shaped by how these consequences are interpreted. If we believe positive consequences (e.g., rewards or recognition) are earned through our own efforts, our self-motivation is likely to increase. But if the consequence is seen as being undeserved, or as only an attempt to control our behavior, we might be less self-motivated.

## 11. Believing Stimuli can "Trigger" Safety-Related Behavior

Stimuli only "trigger" or cause behavior to occur in classical or reflexive-conditioning situations. With voluntary behavior, stimuli give direction but people "choose" to follow or not.[10]  Stephen Covey said more than once that one of his most important early lessons in life was that it is not necessary for people to respond reflexively to environmental events.[11] Instead, we have freedom and power - to choose not to respond or to decide on a plan from a variety of alternatives. And this choice does not necessarily depend on the most immediate and certain consequence.

This challenges the teaching of many behavior-based safety (BBS) consultants. Their ABC model (for antecedent-behavior-consequence) is often taught as if behavior is "triggered by antecedent stimuli" and motivated most effectively by "soon, certain, and positive consequences."

A stop sign "triggers" drivers to apply their brakes, right? A behavioral audit "causes" workers to increase their safe work practices, right? No, only involuntary behavior can be triggered by a stimulus. This occurs through natural or unlearned reflexive action, as when cold air causes you to shiver. Through a certain kind of learning called classical conditioning, previously neutral stimuli can also cause a reflexive response, as when viewing the cold weather outside triggers shivering.

Most daily behavior, including safe behaviors, is voluntary. It's not triggered by external stimuli. Antecedent conditions or events - activators - provide direction for behavior, as when a

safety sign tells people what PPE is required. Individuals decide whether to follow the directive, based largely on the consequences expected after performing the behavior.

## 12. Believing Safe Habits are Most Desirable

Should safe behavior be habitual?  Most BBS trainers and consultants would probably answer "Yes".  They want to see the right (or safe) behaviors occur spontaneously without any preceding or concurrent thought process.  In other words, the performer doesn't need a mental script to prompt or guide the behavior.  The behavior occurs almost reflexively to external stimuli or events that "trigger" it.  Is this what we want?

To get people doing the right thing without thinking is often presented as the ultimate goal of a behavior-change process.  I don't agree, and I hope to convince you the ultimate safety goal is to have employees talk to themselves before, during, and after their safe behavior. This is not mindless, routine behavior, but rather a cognitive state called mindful fluency.

What is Mindful Fluency?
When we are mindful about our actions, we talk to ourselves in different ways.  Before we start, we might give ourselves a mental reminder that a particular job calls for a certain safe behavior. Then we might describe our actions while doing the work.  Afterwards, we might look back and evaluate our actions.

A post-behavior, mental script should include personal commendation that a safe behavior was performed, especially when it was inconvenient, uncomfortable, or inefficient.  This mindfulness might include some evaluative statements relevant to improvement.  If the behavior could have been more effective, for example, the mental script should include some specific suggestions for refinement.  But it's certainly best to emphasize the positive.

Mental Rewards Can Support Actively Caring.
When you actively care for the safety and health of others, give yourself mental credit for such action and become mindful of your good deed.  Just like extrinsic reinforcement, self-reinforcement increases the frequency of the behavior it follows.  In addition, mindfully recognizing one's safety-related achievements boosts the five person-states – self-esteem, self-efficacy, personal control, optimism, and a sense of belonging.  This in turn increases the probability of actively-caring behavior.

Research shows that people who reward themselves are more likely to remain self-accountable and improve their performance.  This is most likely to occur when your positive self-talk is combined with an actual extrinsic reward like an opportunity to exercise, eat a favorite food, spend money, watch television, or attend an entertaining event.  In this case, the mindfulness following a safe behavior includes a decision to give oneself an opportunity to do something enjoyable after doing something less fun but important for safety and health.

And when enjoying the self-reward, it's useful to remain mindful of why you deserve it.  Such justification keeps one thinking safety, and provides support for a personal label like "actively caring safety leader."

Mindful Self-Talk Prevents Human Error.

Perhaps the most obvious benefit of mindful behavior is that it prevents the automatic mode. How many times a day do you put yourself on automatic pilot? Obviously, this kind of mindless habitual behavior can lead to a serious unintentional error and an injury.

Shouldn't we always be talking to ourselves about what we are doing? By avoiding the automatic mode, we prevent those errors and injuries that occur because we were "just not thinking."

Mindful Behavior Allows for Discrimination.

It's easy to be on automatic pilot when we're operating in a familiar environment. But what happens when a forklift truck speeds around a corner? We need to discriminate quickly between the normal routine and the suddenly different work context. Mindlessly following the same work routine can prevent this kind of prompt discrimination.

Mindless behavior can also make us oblivious to gradual changes in the work environment. Equipment leaks or environmental litter can create serious hazards over time, but as creatures of habit we may not recognize a need to adjust our behavior or fix the environment. All of this is less likely when we become more mindful of our everyday activities.

Mindfulness Facilitates Generalization.

Being mindful of what we're doing facilitates generalization, a psychological term referring to how behaviors can transfer from one setting to another (stimulus generalization), or how one behavior can influence another behavior (response generalization).

With stimulus generalization we recognize a particular behavior is useful in another situation. It's the opposite of stimulus discrimination, discussed above, when we realize a change in the context calls for a different response. Just as mindless reflexive behavior prevents stimulus discrimination; it can also deter stimulus generalization – the appropriate transfer of behavior from one setting to another.

Response generalization occurs when the occurrence of one behavior influences the performance of another similar behavior in the same context. For example, when you mindfully buckle your vehicle safety belt, you might remind yourself to perform a number of other safe-driving behaviors (e.g., use your turn signal, stop completely at intersections, comply with the speed limit).

While mindfulness benefits stimulus and response generalization, the type of intervention used to improve behavior influences the nature of the self-talk or mental script, which in turn determines whether generalization occurs. Thus, interventions that influence participants to say to themselves, "I'm doing this because I have to" are unlikely to promote much useful generalization.

But when an intervention enables perceptions of personal choice, self-direction, and ownership, the mindful script is more like, "We are doing this because we choose to do so in order to benefit everyone." This is the kind of mindfulness that results in beneficial stimulus and response generalization.

Mindfulness Enhances Safety Leadership and Responsibility.

Suppose your self-talk goes something like this, "I'm not doing this because someone told me to, but because it's the right thing to do; and I need to set a safe example for others." This kind of

mental script builds both responsibility and leadership.  People at this level of mindfulness hold themselves accountable for following safe operating procedures and are likely to actively care for the safety of others.

Let's look at a simple example of what I'm talking about.  Many people claim they automatically buckle up in their vehicles, without even thinking about it.  Such mindless behavior is commendable but not optimal.  When you habitually buckle up without self-talk, you lose an opportunity to reward yourself for going out of your way to be safe.  Plus, when you're on automatic pilot, you might not notice a passenger in your vehicle is not using a safety belt.  Or, if you did notice, you might not be willing to ask the person to buckle up.

On the other hand, mindful awareness of your own safety-belt use, accompanied by complementary self-talk, increases the probability of noticing whether others are also buckled up for safety.  And if your mental script supports the self-concept of "responsible safety leader," you will likely actively care for an unbuckled vehicle occupant.  You'll ask the individual to buckle up with friendly rather than controlling words.  Why, because you want the person to write the kind of mental script that will lead to him or her using the safety belt in another vehicle (stimulus generalization) and perhaps performing other safety-related behaviors (response generalization).

Here's my bottom line:  Talk to yourself about your safety-related behaviors, no matter how routine the task and emphasize the positives.  Such mindfulness is good for your self-esteem, self-efficacy, personal control, optimism, and sense of belonging.  In other words, you'll feel better about yourself and you'll be more likely to actively care for the safety and health of others.

## 13. Believing Most Injuries Are Caused by Behavior

"What could be worse," bellowed W. Edwards Deming at his four-day workshop in 1991, "blaming people for problems caused by the system"[7].  A number of BBS trainers market their BBS program on the premise that "95% of all workplace accidents are caused by behavior".  To make their point, some of these safety consultants show videos of workers engaged in extremely risky behaviors which result in a vehicle crash or a workplace injury. "Isn't it obvious the cause of these accidents was behavior?" they assert.

When these kinds of BBS sales pitches became popular in the 1980s and early 1990s, leaders of labor unions objected vehemently and justifiably.[12]  Why, because claiming behaviors cause workplace injuries and property damage places blame on the employee and dismisses management responsibility.  Most worker behavior is an outcome of the work culture.

It's wrong to presume behavior is a "cause" of an injury or property damage.  Rather, as discussed earlier, behavior is one of several contributing factors to an injury, along with environmental and engineering factors, management factors, cultural factors, and even person-states.  Thus, when BBS is implemented appropriately the question is not, "What behavior caused the injury," but "What factors are leading people to perform the at-risk behaviors that could result in an injury?"

## 14. Believing BBS is Interpersonal Observation and Feedback

When I ask workshop participants to define BBS, the common answer is "interpersonal observation and feedback." Some specify the development of a behavioral checklist.  Then

someone occasionally adds the observations are entered into a computer program in order to obtain "percent-safe scores" for behaviors, work teams, and/or departments.

 "Those are specific tools and operations that evolved from BBS," I explain. "But what are the evidence-based principles of BBS?" I ask. I rarely get a meaningful response to this question, indicating inadequate understanding of BBS and an inability to apply BBS beyond one rather narrow application.

BBS is not a procedure.  It's a philosophy – a perspective relevant for understanding and improving the vast number of factors influencing the output of a system--at work, at school, and at home.  Let's consider a few basic principles of BBS, which I first used at Ford Motor Company in 1979.

## 1.   Use Behavioral Language.
This principle is fundamental, yet seriously overlooked in so many organizations. Indeed, ambiguous non-behavioral language is used ad nauseam in corporate vision and mission statements, management expectations, performance appraisals, interpersonal conversations, and on safety signs displayed throughout a workplace.

What is "world-class safety"?  What does it mean to be "leading-edge" in safety?  How does one "think safety" and bring a "safety attitude" to work?  What is "self-initiative" and "self-accountability" with regard to safety or any other work challenge?  How can you fairly evaluate another person on the common performance appraisal dimensions of "self-motivation," "enthusiasm," "character," "integrity," "creativity," and "emotional intelligence"?

If you want communication to affect what people do, you need to use behavioral language. Whether setting expectations, recognizing accomplishment, solving interpersonal conflict, or delivering corrective feedback, specify what behaviors are implicated.

Don't presume people understand your definition of such emotion-laden labels as "risk taker," "underachiever," "overachiever," "team player," and "safety leader".  When you provide a list of desirable and undesirable behaviors that reflect your viewpoint, you put others on the same page and offer a prescription for performance improvement.

## 2.   Connect Results with Behavior.
Most readers have heard the warning, "Keep on doing what you're doing and you'll keep on getting what you're getting."  Yet managers and supervisors often discuss performance results without reference to behaviors.  As a result, they miss an opportunity to recognize, correct, or direct specific action.

How often have you attended a safety celebration at which an exemplary system outcome is acknowledged – lower lost-time injuries or worker compensation costs – without any mention of the variety of behaviors that contributed to the recognized results?  Bottom line:  By linking process behaviors to the observed results of a performance system, you not only clarify your perspective, you offer directives people can follow to meet your expectations.

## 3.   Apply Behavioral Accountability.
Using behavioral language is the first step in developing an accountability system for performance improvement.  And a behavioral checklist is a tool that enables peer-to-peer accountability.  Likewise, accountability is possible whenever coaching, corrective feedback,

performance appraisals, or incentive/reward programs are behavior-based.  Each behavior-based process can give behavioral directives, measure behavioral results, and give behavioral feedback.

The measurement and feedback tools of BBS are invaluable, and should not be taken lightly.  They are essential for building skills and enhancing individual and group competence.  Even when we are self-directed, we need to measure our relevant behaviors and benchmark with other people's behaviors.  This enables us to assess our progress at a particular endeavor and set the kinds of specific goals that can activate improvement and provide accountability.

4.  Direct with Activators and Motivate with Consequences.
This principle explains why behavior occurs, and is used as a guideline for developing intervention strategies to change behavior in desired directions.  It actually runs counter to common sense.  When people ask us why we did something, we give reasons like, "Because I wanted to do it," "Because I needed to do it," or "Because I was told to do it."  These reactions seem to put the cause of our behaviors before their occurrence.

The fact is, however, we do what we do because of the consequences we expect to get for doing it.  As Dale Carnegie put it in his classic best seller, "Every act you have ever performed since the day you were born was performed because you wanted something".[13]  It's noteworthy that Carnegie referred to the research and scholarship of B.F. Skinner as the foundation of this motivation principle.

5.  Focus on Positive Consequences to Improve Behavior.
Using positive over negative consequences is critically important because of "attitude".  Think about it.  How does a reward, personal recognition, or a group celebration make you feel, compared to a reprimand or criticism?  Both consequences are significant with regard to behavioral impact.  The difference is in the accompanying attitude or feeling state.

When positive recognition is delivered correctly, it not only increases the frequency of the behavior it follows, it also improves morale, attitude, and various other person-states.  This in turn increases the likelihood other safe behaviors will occur, and that positive recognition will be used more often to benefit both behavior and attitude.

Contrary to the views of some pop psychologists, we learn more from our successes than our failures.[10]  So recognizing people's safe behavior will facilitate more learning and positive motivation than will criticizing people's at-risk behavior.  Remember that only with positive consequences can you improve both behavior and attitude at the same time.  But without an objective and systematic evaluation process, we can't be sure our interventions have the beneficial effects we want.

6.  Apply the Scientific Method to Improve Intervention.
Behavior can be objectively observed and measured before and after the implementation of an intervention process.  This application of the scientific method provides the kind of feedback that can be used for continuous safety improvement.  My associates and I use the acronym "DO IT" to teach this principle of BBS to employees who are empowered to intervene on behalf of their co-workers' safety and want to continuously improve their intervention skills.

The first steps of the DO IT process are reflected by each letter: D = Define the target behavior to increase or decrease; O = Observe the target behavior during a preintervention baseline period to understand natural environment or interpersonal factors influencing the target

behavior and; I = Intervene to change the target behavior in desired directions; and T = Test the impact of the intervention procedure by continuing to observe and record the target behavior while intervention is in effect.

<u>7.</u>  <u>Design Interventions with Consideration of Internal Feelings and Attitudes.</u>
B.F. Skinner's concern for people's feelings and attitudes is reflected in his contempt for the use of negative consequences to motivate behavior.  In his classic book, *Beyond Freedom and Dignity,* Skinner writes, "The problem is to free men, not from control, but from certain kinds of control".[14]  Then he explains why control by negative consequences needs to decrease in order for people to feel free.

Think about it.  When do you feel more personal freedom or empowerment – when you are working to achieve a pleasant consequence or working to avoid an unpleasant consequence?

Therefore, decisions regarding which intervention to implement and how to refine existing intervention procedures should be based on both objective observations of behaviors and subjective evaluations of feeling states.

Often, however, it's possible to evaluate the indirect internal impact of an intervention by imagining yourself going through a particular set of intervention procedures and asking the question "How would I feel?"

# 15. Misusing "Discipline" to Improve Behavior and/or Attitude

Let's discuss traditional discipline for safety – a form of top-down control with negative consequences. I have met many managers who include a "discipline session" as part of the corrective action for an injury report. The injured employee gets a negative lecture from a manager or supervisor whose safety record was tarnished by the injury.

These "discipline sessions" are unpleasant for both parties, and certainly do not encourage personal commitment or buy-in to the safety mission of the company. Instead, the criticized and embarrassed employees are simply reminded of the top-down control aspects of corporate safety, usually resulting in increased commitment to not volunteer for safety programs nor to encourage others to participate.

What about progressive discipline? Whenever I teach behavior management principles and procedures, the question of how to deal with the repeat offender inevitably comes up. Aren't there times when punishment is necessary? Doesn't an individual who "willfully" breaks the rules after repeated warnings or confrontations deserve a penalty?

Through progressive discipline these individuals receive top-down penalties, starting with a verbal warning, then written warnings, and eventually dismissal. In some cases, dismissal is the best solution for uncooperative individuals who can be a divisive and dangerous factor in the workforce. Fortunately, this worst case scenario is rare.

The standard progressive-discipline approach in safety enforcement includes three steps. After the third infraction, it's common to send the employee home for a certain number of days without pay. In other words, "three strikes and you're out." But the wrongdoer is not out for good. The individual is usually allowed back "in the game." Here is the critical question. Is the person a better "player" upon his or her return?

When employees are punished by being temporarily dismissed, we expect them to perform better when they return to work. In other words, we hope they learn something from this demeaning punishment. We also hope the learning is more than how to avoid getting caught next time.

Actually, whether the right or wrong kind of learning occurs in this situation depends on one key factor – attitude. If the employee is angry and does not own up to a calculated risk, useful learning is unlikely. If negative or hostile emotions develop in an employee as a result of the dismissal, do not expect the employee to return to work with a more pleasant and co-operative demeanor. Instead, expect a more disgruntled worker, who might give lip service to following the safety rules in order to avoid another dismissal but will likely share a negative attitude with anyone willing to listen. As we have all experienced, "returning a rotten apple to a barrel makes other apples it contacts rotten."

Even if punishment were an effective intervention approach, most human error is not deliberate and not deserving of a negative consequence. Instead, management, equipment, or system factors need to be analyzed and changed. But learning how to change these factors in order to reduce at-risk behavior requires open and frank discussions with the people making the errors. This is only possible when the threat of punishment for wrongdoing is removed.

Bottom line: The threat of punishment stifles the process of learning how to prevent the errors that can lead to serious injury.

## 16. Limiting the Human Dynamics of Injury Prevention to BBS

The inaccurate presentations and distortions of BBS led me to introduce a new label for applying behavioral and psychological science to occupational safety – people-based safety (PBS). Note the term "psychological" science. This addition reflects the fact that PBS draws from areas of psychology beyond behavioral science, including cognitive science, social science, as well as research addressing perception, emotion, and personality.

The PBS principles and applications for injury prevention are detailed in textbooks[15] and journal articles[16], as well as on CD's and DVD's.[17] And at least one consulting/training firm is dedicated to applying these principles to help organizations prevent workplace injuries and fatalities.[18]

The PBS approach is not an alternative to BBS. It's an evolution. It integrates the best of behavior-based and person-based psychology, as reflected by the acronym ACTS: Acting, Coaching, Thinking, and Seeing. The *Acting* and *Coaching* components are essentially BBS, except self-coaching and self-management techniques are incorporated. These added processes are supported through self-talk, which involve the *Thinking* component of PBS.

The *Seeing* dimension of PBS takes into account the divergent views of safety-related issues held by employers, supervisors, and managers, which should be assessed with a perception survey and considered when designing and evaluating interventions to improve safety leadership and performance. Personality or dispositional factors are also addressed in this domain of PBS.

## 17. Expecting the Best from the "Golden Rule"

Treating others the way *you* want to be treated (The Golden Rule) is not optimal because others may want an alternative treatment. The Platinum Rule is preferable (i.e., treating others the way *they* want to be treated), but this requires empathy.[19]

Empathy is not the same as sympathy. We sympathize when we express concern or understanding for another individual's situation, but we empathize when we identify with another person's situation and realize what it's like to be in the other person's shoes.

An empathic level of awareness and appreciation is not easy to achieve, and can only be reached after we minimize the reactive filters that bias our conversations, and listen intently and proactively to the other person. Not only must we hear every word, we must also look for feelings, passion, and commitment reflected as much in body language and manner of expression as in the words themselves.

When we observe another person's work practices, we should try and view the situation from that individual's perspective. When we listen to excuses for at-risk behavior or for an injury, we should try and see ourselves in the same predicament. We should imagine what defense mechanisms we might use to protect our ego or self-esteem. And when we consider action plans for improvement, we should try and view various alternatives through the eyes of the other person.

Obviously, empathic listening, diagnosing, and action planning take patience. Conversations at this level are not efficient, but they are effective. The objective is to first learn, mostly through questioning and listening, what it's like to be in the other person's situation. Then the objective shifts to developing a corrective intervention that fits the circumstances as mutually understood by everyone involved in the conversation. If commitment to follow through with a specific action plan is stated, you've had a most effective empathic conversation.

## 18. Labeling People According to Only a Few Personality Traits

I see marketing posters and I hear speeches at safety conferences that grossly oversimplify the role of human behavior and dispositional states on workplace injuries. Indeed, sessions on "accident investigation" claim to provide "tools" for identifying one particular human factor that "caused" an injury (i.e., a "root cause").

And, highly-marketed consulting firms classify factors leading to at-risk behaviors and injury into as few as four categories. Similarly, a popular training program uses an assessment tool to pigeonhole people into one of four personality types.

As a student, researcher, and teacher of psychological science for more than 50 years, I am disappointed and frustrated by such oversimplification. It actually makes a mockery of psychology; but more importantly, these marketing tactics are misleading and can result in more harm than good.

For example, focusing on a limited number of person traits or states as the cause of an injury stifles the search and discovery of critical contributing factors. This pop psychology can also limit or bias the interpersonal conversations needed to identify the variety of system factors that influence the human factors. The human side of keeping people safe is not that simple.

## 19. Doing More Managing than Leading

At times it may seem necessary to hold people accountable for their participation in a safety process. But this results in behavior being other-directed rather than self-directed or self-motivated.[20] Other-directed behavior requires external activators and consequences for maintenance. Continual participation in a safety process needs to be self-directed, and this is facilitated by effective leadership. Safety leaders inspire people to feel personally responsible for the success of a safety process, as opposed to safety managers who hold people accountable for their participation.

Consider the following ten qualities of effective leaders which are contrary to typical safety-management practices and overcome the errors discussed here. Note how these attributes relate directly to my suggestions given above for sustaining involvement in occupational safety.

Specifically, I propose safety leaders should: 1) focus on behavior related to the process – the journey to the destination; 2) teach the rationale and/or principles that justify certain processes or procedures; 3) look for facts rather than faults; 4) listen carefully with empathy and diagnose carefully before intervening; 5) promote ownership, empowerment, and interpersonal trust; 6) facilitate perceptions of choice, competence, and community; 7) set expectations rather than mandates; 8) show confidence in a project being successful, but be uncertain as to exactly how people should make it happen; 9) look beyond outcome numbers when measuring success; and 10) value diversity, match talent with function, and thereby optimize the synergistic output of work teams.

## 20. Believing You've Learned Enough to Accomplish the Most

A participant at a recent leadership retreat at my home – Make-A-DiffRanch in Newport, Virginia – made my day with the following comment. He shook my hand and said:

> *What a pleasure it was to hear your latest thoughts about person-to-person actively caring to benefit individuals, organizations, and communities. I first became aware of your research and scholarship when attending your day-long workshop at the ASSE (American Society of Safety Engineers) Convention in 2002. Since then I've read four of your books, and taught my colleagues many of your principles.*

## Learning and Evolving

I'm not sharing this comment to show off, but rather to provide context for the rest of this individual's commentary, which was most reinforcing to me. Obviously, I was genuinely pleased to hear those kind remarks, but I had to interject, "It's so nice to learn that my teachings are reaching others through other teachers. But since you've already read several of my recent books, much of my workshop material today was redundant, right?" He replied:

> *For sure, I understood where you were coming from and I predicted where you were going throughout that session, and it was reassuring to hear it again. But what I really liked best was learning how your perspectives, principles, and application suggestions have evolved over the ten years I've been following your work.*

That last comment was the big reinforcer for me.  My teaching of practical ways to apply psychology for solving real-world problems has progressed significantly over the years, as I continuously learn from ongoing research and from my own and others' consulting experiences.

For me, it's so meaningful to have an organizational leader recognize, understand, and appreciate the evolution of recommended approaches for managing the human dynamics of organizational and societal problems.  Why, because it justifies continuous collaboration and mutual learning from researchers and consultants. Plus, it validates the need to understand the rationale behind a process, and look continuously for ways to improve.

## Actively Caring for People

Today my colleagues and I call our evidence-based approach to improving the human dynamics of safety –"Actively Caring for People" (AC4P). The AC4P approach combines the best of people-based safety with relevant principles of humanism, as advocated by Drs. Covey and Deming, in order to continuously improve behaviors related to the health, safety, and well-being of people worldwide.

We call this intervention approach: *humanistic behaviorism.* For more information about the humanistic behaviorism approach to increasing the quantity and quality of AC4P behavior log on to ac4p.org or safetyperformance.com and see our new book: *Actively Caring for People: Cultivating a culture of compassion.*[21]

Please note that all proceeds from the sale of our book on the AC4P Movement go to The Actively Caring for People Foundation, Inc. -- a not-for-profit organization established to explore, evaluate, and teach applications of AC4P principles to improve the safety, health, and well-being of people worldwide.

## In Conclusion

The AC4P Movement applies the behavioral and psychological science principles used in BBS and PBS to address worldwide issues beyond safety, including interpersonal bullying, alcohol abuse, environment sustainability, and alcohol-impaired driving, to name only a few potential application domains.

Optimizing the people side of organizational performance requires a continuous-learning mindset, one that's skeptical but open to considering new evidence-based proposals for intervening on behalf of the welfare of oneself and others.

On the last afternoon of a four-day workshop delivered by Dr. Deming[7], a participant stood up and asked, "Dr. Deming, you've taught us so much, and you've made it clear that so much change is needed in our work cultures.  With so much improvement called for, can we really expect to make a difference in our lifetime?"

Dr. Deming, at age 91, replied, "That's all you've got!"

I was so inspired by Dr. Deming's retort.  We do only have our brief lifetimes to make a beneficial difference in the critical human dynamics of our work cultures.  We won't do this with

quick-fix aims for short-term gains.  Before attempting to progress the human side of safety, trainers and change agents need to dedicate time and effort to learning the evidence-based principles of behavioral and psychological science that can inform the development of effective interventions for improving people's safety-related behaviors.

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