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How to Measure the Safety Leadership of Managers, Leaders and Supervisors

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Quality Safety Edge

ABSTRACT

Behavioural safety is a proven technology based on the established science of behaviour. When implemented with fidelity, it can dramatically improve safety performance, i.e., the rate of occupational illnesses and injuries among employees. Unfortunately, many organisations underestimate the complexity of the technology and fail to devote the level of leadership support that they would to any other major system change in their organization. There are three major categories of leadership behaviour that are essential if a behavioural safety process is to be sustained and to accomplish its objectives. The behaviours derive from the work of Judi Komaki as reported in her text, *Leadership from an Operant Perspective* (1998). They form the basis for the development of checklists to measure the performance of each level of leadership.

Keywords: Behavioural Safety, Checklists, Feedback, Leadership, Organizational Behaviour Management

INTRODUCTION

Komaki (1998) introduced a model for effective leadership based on the three-term contingency model of Antecedents-Behaviors-Consequences. Her model, Antecedents-Monitoring-Consequences, highlights the importance for leaders of paying attention to the performance of their subordinates. Her research indicated that the most successful leaders were those who could best modulate the consequences they delivered. The more precisely they matched their feedback to the level of performance, the more effective they were in improving that performance.

BEHAVIOURAL SAFETY

Behavioral safety is a process of improving the systems within an organisation that prevent incidents that could lead to employee injuries. The process has two major components that lead to improvements in safety performance: feedback on behavior and changing the contingencies that control behavior.

Most companies that implement behavioral safety are not only interested in reducing the number of incidents – the result – but also in a process that differs from most traditional safety improvement efforts. They are interested in promoting a more collaborative relationship between employees, management, and the EHS staff. They seek to proactively address factors in the organisation that increase the risk of an incident. This contrasts with a more reactive approach where safety professionals interpret regulatory authority rules to management; management promulgates policies and procedures to meet these regulatory requirements, and both EHS professionals and management assume the role of auditor or police officer in seeking out and punishing failure to comply. As a result, communication between employees and management and between management and ESH professionals becomes adversarial and information that could prevent incidents is not communicated to those who might take action.

To achieve a more collaborative approach, organisations seek to involve both employees and management in jointly designing, rolling out, and maintaining a behavioral safety process as well as in analyzing the observation data to identify contingencies that can be improved.

LEADERSHIP

Such a situation – where the nature of the process is as important as the results achieved – calls for a qualitatively different kind of leadership than that on which many in managerial positions have relied in the past. Therefore, part of any rollout of behavioral safety must be changing behavior of leaders. The same tactics that are used to change the safety behavior of employees are applied to change the leadership behavior of managers – feedback and changing organisational contingencies.

FEEDBACK

The first step in developing a feedback system is identifying and describing in measurable terms the specific leadership behaviours of interest. The second step is specifying the frequency and circumstances for measuring and providing feedback on those behaviours. The specific behaviours will vary for each leadership position but the categories of behaviors within the three terms of the model are common to all leaders.

ANTECEDENTS

Successful leaders provide effective antecedents for desired employee behavior. Leaders in organizations with successful behavioral safety processes provide antecedents that increase the probability that their direct reports and the steering committee will fulfill their role in the behavioral safety process. These antecedents fall into several categories:

- Participate in training
- Publicise the role of leaders in supporting the process
- Model participation in observation and feedback
- Be active on the steering committee managing the process
- Remove barriers to the work of the steering committee
- State your support for observation and feedback
- Champion and defend the process
- Respond in a timely way to recommendations based on observation data
- Provide resources for the steering committee to manage the process

MONITOR

Leaders in organisations that sustain a behavioural safety process that reduces the risk of injuries also monitor the performance of all involved in the process. These monitoring behaviour categories include:

- Ask specific process-related questions of your colleagues, your direct reports, and the steering committee
- Attend steering committee meetings, presentations, and activities
- Review and respond to behavioural safety process data regularly

CONSEQUENCES

Successful behavioral safety leaders deliver effective consequences that shape the behavior they discover when they monitor. Some of the shaping consequences include:

- Immediate verbal feedback acknowledging desired behaviour or results
- Continued problem-solving questions when desired behaviour is not evident
- Reward, recognize, and celebrate the steering committee for their contribution
- Ensure that leaders who support and participate in behavioral safety are rewarded and do not reward those who do not

CONCLUSIONS

As a result of pinpointing the behaviours of leaders for each category, it is possible to create a simple checklist that allows each level of management to hold their staff accountable for specific performance that will ensure safety improvements.

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Dr. Matthews currently specializes in the application of human performance technology to industrial safety and leadership improvement. She has thirty years experience designing, implementing, and evaluating successful performance improvement programs in a wide variety of organizational settings. Her special focus is on complex project management for geographically dispersed and culturally diverse organizations.

Dr. Matthews is the past President of the Behavioral Safety Network, past Program Director of the Behavioral Safety Now conference, and an active member of the Organizational Behavior Management Network.

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Unique services created by Dr. Matthews address client needs in the areas of:

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PUBLIC LECTURES – 10TH MAY

Enhancing Safe Behavior in People Working Alone: Driving Autopilots toward Situational Awareness

THE REAL THREAT TO DRIVING SAFETY IS THE AUTOPILOT WE ALL DEVELOP OVER A LIFETIME OF DRIVING FOR PERSONAL REASONS OUTSIDE OF THE WORK SETTING

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This morning I was a lone worker. I drove my vehicle into work today and did so alone with just my favorite blues station on the radio. I had to be responsible for my own safety. No one was there to alert me to risks (as my son is so prone to do now[1]) or help me think through the process of navigating hazards. Alternatively, no one was there to distract me from performing the driving task safely. In the end, I got to my office safely. However, I cannot tell you the actions I took to arrive safety. I was on a type of autopilot[2].

My autopilot helped me drive safely. The Autopilot includes a set of behaviors such as using my safety belt, hugging the blind turns that are abundant in the mountains, maintaining a safe speed for the situation, and stopping when appropriate. Thinking back, I honestly couldn't tell you if I indeed did those things but I assume I did.

I can tell you that my mind was considering my to-do list, my son's enjoyment of college, and an upcoming trip to Salt Lake. I was not consciously thinking about the safety of my driving.

Its frankly amazing how a computer autopilot can do everything for an airline flight[2], takeoff, cruise, and even land, except for taxiing around the airport. But don't look for airline pilots to be out of work[3]. When on autopilot, when variance occurs in weather, routing, sensors, or within aircraft equipment, the pilot is alerted and can take over manual operations.

I can attest to times that I've been driving, relying on my autopilot and thinking of something else when my attention was suddenly activated, automatically and with split second timing, to a hazard on my drive. I go from a mind that is elsewhere to an adrenalin-aided focus bringing me to the right-here, right-now. And my behaviors followed quickly thereafter to modify my driving and avoid the hazard.

This all happened so reflexively that it seemed as though the alerting, focusing, and behaviors occurred even before I was aware of the hazard. Thank goodness for that little fact of human neurology where sensory information is passed through the reactive parts of your brain before hitting the cortex where you become conscious of the situation. For example, your visual pathways progress from your eyes to your thalamus where the neural information gets relayed through the Lateral Geniculate Nucleus which can automatically focus your attention to the most important stimuli, such as a driving hazard, before sending the information to your occipital lobe in the cortex where visual information is processed into what you actually "see" (McAlonan, Cavanaugh, & Wurtz (2006). This allows us that split second head start that can make all the difference: It's like you react first then become aware what your reacting to, you didn't have to wait on the brain .

But most of the time my autopilot switch-off is not so dramatic. For example, the erratic actions of another driver will capture my focus away from my daydreaming and I'll focus to avoid coming in contact with that driver's erraticism.

Autopilot is a nice little nuance of cognitive processing that allows us animals, especially humans, to plan, solve problems, or otherwise daydream while performing routine tasks. And it seems to know when to turn off so we can avoid hazards. However, when it comes to safety, autopilot can also be dangerous.

They are the multitudes working away from base doing construction, repairs, or maintenance to external facilities. They work at customer sites providing services or drive to deliver product. All of these jobs require an extensive amount of solitary driving. It miles add up quickly; I'm currently working with a multinational oil services company whose employees drive around the world 6 times each day!

[1] http://safety-doc.com/safety-stories---free/for_those_about_to_rock.pdf
[2] http://en.wikipedia.org/wiki/Autopilot

[3] http://www.cnn.com/2012/03/24/travel/autopilot-airlines

I was told by an insurance company manager that their single biggest exposure to injury is their agents' driving; and that's not the first time I heard that fact. Indeed, driving is one of the most dangerous activities in the work world.

When driving, injuries can be life-threatening or life changing. Hazards are constantly fluctuating. Thus, the real threat to driving safety is the autopilot we all develop over a lifetime of driving for personal reasons outside of the work setting.

On one hand, we drive so much for personal reasons that we gain extensive experience that helps us become more fluent and aware when new hazards come our way. Indeed, research shows[4] that one reason youth take more risks while driving than adults is because they just don't have the experience to know when the situation is more hazardous and when their risks are more likely to result in a collision[5] (Bragg, 1986; Brown & Groeger, 1988)

Our experience driving, however, shapes an autopilot that usually does not translate well to driving on the job. The autopilot developed when driving for personal reasons is executed with a familiar vehicle in familiar surroundings.

I live in the rural mountains and recently took a trip to the city on business. I was on my autopilot and suddenly found myself running right through a red light in the middle of the city. I wasn't used to so many intersections. The guy I cut off in the intersection let me know his displeasure by honking. When he drove up next to me and looked over angrily all I could do was point to my brain and shake my head. I needed to get off autopilot!

When we drive as part of our work we may be doing so in unfamiliar vehicles in unfamiliar surroundings. Reverting back to our personal autopilots can result in unconscious risks.

Also, we have all been shaped to take risks because our personal autopilots work so well. These risks have been shaped up because we do them often and don't get in a wreck. On familiar routes we can go so much into autopilot that we choose to eat, look at paperwork, or even text on our phones. (Do your own survey. While riding with someone else driving, look at other drivers… you'll be amazed how many are texting!). When we take these personal autopilot risks to our work driving the increase collision rises significantly.

[4] http://www.sciencedirect.com/science/article/pii/0001457586900436
[5] http://www.tandfonline.com/doi/abs/10.1080/00140138808966701

Unfortunately, employers can take driving experience for granted, assume employees know how to drive from personal experience, and simply send workers out to drive without proper training. At best, we establish a bunch of rules that employees are supposed to follow and fool ourselves as these lone workers revert back to their personal autopilot habits without consequence (until its too late).

But the type of training needed is not driver training courses. We can indeed assume the worker knows how to use vehicular safety equipment and know the laws of the road.

Instead, the training should focus on *installing a new autopilot* for the worker, one that creates the necessary situational awareness to be alerted to risks and hazards.

In behavioral science we prefer using the term "fluency" to describe a type of autopilot that results in no errors.

Here are some steps that help build the new autopilot with the goals of supporting safe behaviors and situational awareness:

a) Identify the specific step-by-step behavioral process to be learned with a focus on safety behaviors.
b) Identify where people tend to vary in this process and determine why. These areas of variance tend to lead to errors and risks.
c) Focus training on these areas under the very circumstances that cause the variance.
d) Have the trainee practice the behavior under these circumstances. Build a new level of situational awareness during practice by having trainees frequently identify novelties and potential hazards.
e) Continue the practice until variance no longer occurs thereby establishing fluency.

Consider the driver making sales or service calls who travels in traffic while having to find and follow directions. Variance occurs when they get near their destination and then begin to engage their smart phone for direction help and look for location signage instead of remaining aware of other vehicles, traffic patterns, and road signs. Understand why this happens. Determine an alternative behavioral fix. For example, they could be trained to set destinations on their smart phones before starting the vehicle and pulling over to park when the directions get complicated or need resetting. Train this behavioral process until fluency demonstrated during ride-alongs or simulations.

For the industrial driver in a non-traditional vehicle the variables may be much different. I've been all around the world interacting with drivers in haul trucks

carrying 200 tons of ore, or driving work crews in buses on makeshift roads, or transporting hazardous materials on back roads to service remote sites; you name it, they've driven it. The fact is, each of these types of driving offer their own variables that must be understood and trained for. But in each case there is a situational awareness factor that is paramount in their performance.

Videos and photographs of different situations containing potential hazards can be developed using old-timers experience (the more realistic the better – such as the kangaroos that love to jump out in front of Aussie transport drivers or the manager in the F350 running across a mining road in front of your haul truck). Training would expose drivers to these videos and having them identify the hazards which can be reinforced during ride-along sessions until the driver can demonstrate situational awareness fluently.

But even when we shape up fluent autopilots with the necessary situational awareness we don't want to perform on autopilot all the time. The Federal Aviation Administration (FAA) put out a recommendation this year that pilots spend more time in manual control of their aircraft[6]. Their recommendation is based on the concern that pilots' skills may be degraded because autopilot does not reinforce the pilot skills necessary for manual flight operations, especially if the airplane is in a upset state. Pilots are also less likely to recognize growing problems in the airplane's equipment if not periodically engaged.

Therefore, even a correctly shaped behavioral autopilot for the lone driver should be turned off now and again for the same reasons the FAA suggests: to rehearse safety driving skills intentionally and to practice hazard recognition during driving to reinforce situational awareness. This brings us to the final step of fluency training:

f) Prompt the employee to conduct self-observations periodically while engaged in the task. These observations should result in a list of safe behaviors, at-risk behaviors, and hazards identified during a 10 minute continuous section of time.

Fortunately, in this age of on-board computer monitoring systems adopted by many driving-intensive industries, messages can be sent to drivers from their dispatchers/supervisors to conduct a 10-minute self-observation. With voice recognition software, employee responses can be collected real-time and reviewed later.

This fluency training can result in the development of new driving-related behaviors and situational awareness that can drastically reduce vehicle incidents. But, the little

[6] http://www.tandfonline.com/doi/abs/10.1080/00140138808966701

secret here is that fluency training can be successfully used on any high-risk task … lone worker or not.

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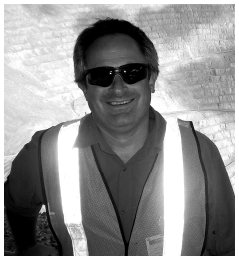

Timothy Ludwig's website is Safety-Doc.com where you can read more safety culture stories and contribute your own. Dr. Ludwig is a senior consultant with Safety Performance Solutions (SPS: safetyperformance.com), serves as a commissioner for Behavioral Safety Accreditation at the non-profit Cambridge Center for Behavioral Studies (CCBS: behavior.org) and teaches behavioral psychology at Appalachian State University, in Boone, NC. If you want Tim to share his stories at your next safety event you can contact him at TimLudwig@Safety-Doc.com.

PLENARY SESSION - 10TH OF MAY

The Measure of a Leader

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ABSTRACT

The following text is literally taken from the first chapter of the best seller "Measure of a Leader", available on www.aubreydaniels.com

Leadership is essential to every business undertaking, and yet the failure rate for leaders in America's businesses is in the staggering range of 50-60% (Hogan et al., 1994). While such number alarming, are not unbelievable to anyone in touch with today's business news.

Hardly a day passes without reports of some executive who has been forced to resign or has otherwise been removed from a leadership position. Where else in an organization could we afford or allow such failure rates? How can it be that leadership-a subject that has been studied and written about for hundreds of years and is today the subject of over 16,000 books-still produces such disastrous results?

Certainly part of the problem is that non-consensus is available on the definition of leadership. After reading scores of leadership books, readers must ultimately draw their own conclusions about the meaning of leadership because little agreement exists on that subject. Even when authors do agree, the terms of leadership are described so broadly that the reader derives only a general sense of what one must do to become an effective leader. Therefore, the lessons that readers draw from leadership books vary widely based on their own personal experiences, objectives, and Prejudices.

Because leadership facts are so difficult to discern, most authors approach the subject inductively' That is, they glean anecdotes from individual histories and plesent them as universal truths. The leaders they study are usually charismatic individuals who have achieved some level of fame. Since these individuals are often heroic or flamboyant, our fascination about what makes them different from the rest of us becomes the focus. This is a dangerous practice, because frequently the individuals studied are deemed effective in spite of some of their more defining characteristics rather than because of them. […]

A NEW MODEL OF LEADERSHIP

[…] We propose "a different model to identify effective leaders. Just as we do not look at the moon to determine its importance but rather at its effects, such as on the

tides, the earth's crust, the earth's wobble, and the time of rotation, we look at the followers to determine the quality (the effect) of leadership. We are not examining leadership in terms of a person's position in the organization. *We are discussing the effect that any person has on the behavior of others*. Leadership is a daily activity in cvcry walk of life. In business, we simply have more opportunities for deliberate practice and evaluation in a more controlled setting. Businesses can truly be a school for leaders. For that reason we begin with simple statement of our premises.

You are a leader only if you have followers. While this seems obvious, its implications are not. It suggests that the focus of any study of leadership should be on the relationship between the leader and the followers, not just on the leader. And to do this effectively, we must examine closely the followers' reaction to the leader. Follower behavior, not leader behavior, defines leadership.

Our model posits four criteria of the followers' behavior that define leadership:

l. Followers deliver discretionary behavior directed toward the leader's goals;

2. Followers make sacrifices for the leader's cause;

3. Followers tend to reinforce or correct others so that they also conform to the leader's teachings and example;

4. Followers set guidelines for their own personal behavior based on their perceived estimate of that which the leader would approve or disapprove. […]

Keywords: Leadership, Followers behaviors, Organizational Behavior Management

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