The coming revolution in worker injury prevention

BY JIM WALTERS, EdD, Power of Learning, Inc.

Thomas Watson who was president of IBM in the 1950s said, “All the problems of the world could be settled easily if men were only willing to think.” This quote is especially appropriate for the power industry. Specifically, the industry’s rate of accidents, which has remained steady for decades, could possibly be due to a tacit promotion of accidents. As a solution, current knowledge of human cognition used in other industries might compel powerline technicians, field workers, middle management, and utility executives to think differently about electrical safety in the workplace. Electricity Today Magazine’s first annual Lineman Safety Report will explore how human cognition can reduce the number of accidents and improve worker safety.

Despite the decades-old evolution of safety practice guidelines developed by organizations such as the Canadian Centre for Occupational Health and Safety (CCOHS) and the Occupational Safety and Health Administration (OSHA) in the United States, serious accident rates remain steady. This outcome is not surprising since the word accidents itself conveys a phenomenon separate from the individual. In other words, ‘accidents’ just happen.

Injuries due to tornadoes, lightning strikes, and sinkholes truly are accidents. No worker, executive, or any other level of utility management can truly prevent accidents from happening onsite. As Don Wilson, president of Wilson Construction in Oregon said at a recent safety workshop, “We have no control over being swallowed by a sinkhole; it’s an accident. [In the power industry], we do not have accidents we have incidents.” How true. Injuries due to improper grounding, arguing between foremen, and distractions are absolutely preventable. Incidents are not accidents and the distinction is crucial to improving rates of injury and deaths.

At a recent “Get to Know Your Brain for Safety’s Sake” workshop, a lineman said, “If I have to watch one more safety video showing someone getting hurt, I am going to throw up.” These common statements communicate frustration and can leave powerline technicians in the dark on how to reduce similar events as seen on the video.

The old way of implicit thinking is, “It’s a dangerous profession and accidents happen.” Bottom line, how the power industry currently views electrical safety in the workplace must move in a new direction.

INSTITUTING NEW THINKING

Many industries such as utilities and contractors naturally reflect the thinking of their employees. In the same fashion, the electric industry reflects the thinking of its member organizations. Over time, current thinking becomes difficult to change because of the self-sealing nature of established work practices. Psychologists and other mental health professionals define self-sealing as a powerful process rooted in the primal brain. A worker who thinks about falling off a ladder, only to fall off a ladder is an example of self-sealing. Some individuals might categorize the previous example as a coincidence. However, mental health professionals believe that this example is a demonstration of the power of the subconscious/primal mind’s ability to control behavior. Consequently, success is a direct result of thoughts placed in the subconscious mind.

In addition, mental health professionals believe that the mind cannot recognize a negative. If a foreman asks a worker to not think about a bucket truck, instantly the worker might think of a bucket truck. The worker might remember a specific experience of repairing a line while working on the truck. The foreman asked the worker not to think about a bucket truck but the mind did not recognize the negative.

Together, self-sealing and the mind’s inability to recognize a negative empowers workers to profoundly affect how safely they work. Utility workers can improve electrical safety by populating the mind with statements that are directed to what is desired, "towards success", as opposed to what is not wanted, "away from failure".

An example of an “away from failure” statement concerning safety practice could be “I want to make sure I don’t do anything stupid and lose the respect of other linemen.” This statement programs the mind to think of staying away from making foolish mistakes relating to safety such as taking shortcuts, not testing rubber gloves, and/or arguing with other workers for job control.

This thinking orientation is focused on avoiding failure. However, since the mind cannot recognize a negative “away from failure”, thinking effectively programs the mind to think of what the worker does not want. What an individual thinks drives behavior, and at the subconscious level the mind works to gain control of specific situations, to focus on taking shortcuts, and to use untested (and possibly unsafe) rubber gloves.

On the other hand, a worker could think towards success with a statement such as “I cannot wait to hear other linemen comment on my attentiveness.” This statement effectively programs the mind to think of behaviors that work to eliminate incidents such as taking time to complete jobs, to test rubber gloves (and probably remind others of the same), and to avoid gaining control at job sites.

A significant difference between “away” and “towards” statements is noticeable. “Thinking towards” thinking programs the mind to achieve a goal, whereas “away from failure” thinking programs the mind to live constantly alert to failure. The opportunity to change the industry from an accident to an incident orientation is clear, yet changing how electric utilities think about safety can be difficult.

Carroll Lee, former chief executive officer of Bangor Hydro-Electric Company, and Guvenç Alpander, Professor of Management, Director of Graduate Program, College of Business Administration at the University of Maine, reported in the Journal of Management Development that the challenge to changing the thought process of government-owned electric utilities might be especially significant.

The two authors’ research document entitled, “Culture, Strategy, and Teamwork: The Keys to Organizational Change”, documented that government-owned utilities have evolved into vertically structured, bureaucratic, and hierarchical organizations due to their stable environment and governmental nature. As a result, employees have not developed the same kind of organizational commitment that is characteristic of many privately-owned organizations. The
authors contend these organizational characteristics are deeply entrenched in electric utility culture and fuel resistance to change.

ACCIDENTS TO INCIDENTS
As mentioned earlier in the article, “we do not have accidents - we have incidents”. Injuries due to such practices as improper grounding, arguing between foremen, and distractions are absolutely preventable. Incidents are not accidents and the distinction is crucial to improving rates of injury and deaths.

Changing accidents to incidents requires changing how the electric industry views safety. Changing a mindset is a challenge, but not impossible. Change requires regulators, stakeholders, and utility management to embrace growth and to ask higher-level questions (that is, second-order change). These types of questions are differentiated from lower-level questions (that is, first-order change) by intent as shown in the “Accidents to Incidents” table.

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<thead>
<tr>
<th>ACCIDENTS TO INCIDENTS</th>
<th>Goals for change</th>
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<td><strong>Low-Level Goals</strong></td>
<td><strong>High-Level Goals</strong></td>
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<td>(First-order change)</td>
<td>(Second-order change)</td>
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<td><strong>Focus</strong></td>
<td><strong>Focus</strong></td>
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<td>The structure, management practices, and policies and procedures</td>
<td>The mission, strategy, leadership, and organizational climate and culture</td>
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<td><strong>Thought Orientation</strong></td>
<td><strong>Thinking Orientation</strong></td>
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<td>Rationalize why changes should not be implemented</td>
<td>Reason toward possible changes; think critically</td>
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First-order Change
Achieving low-level goals
First-order change tactics address transactional errors in organizational practice such as line truck replacement, bill collection policy, and depersonalizing injuries by referring to accident rates. First-order tactics work to change some features of the organization, but how the organization thinks, by virtue of work practices, is left fundamentally the same.

Second-order Change
Achieving high-level goals
Second-order change tactics dig deeper into the organization and challenge whether trucks, in fact, are really needed, whether the utility should even be in the bill collection business, and personalize injuries by referring to incidents rates.

Second-order change is associated with the personal or affective dimension which can be manifested in behavior such as uncertainty about new expected working requirements, self-doubt about the ability to succeed using new methods, and grieving over the loss of actions that were accomplished with success in the past. Addressing the emotive side of utility personnel (management, field technicians, among others) requires transformational change in leadership strategies in order to shift the primary focus from internal components such as assets and processes towards the human side of the organization.

Second-order change is difficult. To change how an entire industry views safety requires time—perhaps years. First, utilities need to hire leaders who embrace change. Second, utilities will need to implement bottom-up tactics. A utility cannot force employees to adapt an entirely new thought process through micromanagement; however, utilities can provide workers with education that empowers them to want to change with aligned expectations.

Change could be accomplished by providing safety workshops that not only focus on best practices, but also include information on mindful thinking, the risk of an unhealthy ego, the power of “thinking towards success” versus “away from failure”, and intellectual growth.

FAMOUS LAST WORDS
Thinking in terms of accidents instead of incidents programs the mind to think of what it in fact does not want—accidents. Thinking “towards success” instead of “away from failure” was presented as a means to change the century-old thinking of the electric power industry. Changing an individual’s thinking was associated with second-order change. As such, behavior is a major focus of second-order change and requires both top-down tactics such as deep-change-minded leaders and bottom-up tactics such as education that empower the worker’s desire to change.

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