

Building Human Performance Reliability By Improving Situational Awareness

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You are all familiar with the phrase, “we are creatures of habit.” When we say it, we imply two things. First, we imply that we try to keep things predictable and we return to the same pattern of behavior. Second, we imply that when we are in our normal workspace and doing routine tasks we don’t stop and intentionally process information.

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Instead we operate in fast brain mode, meaning our brain operates at the subconscious or non-thinking level.

From an energy conservation perspective, habits are very beneficial. Consider how difficult each day would get if we only engaged the rational part of the brain we often call the “slow brain.” If we did that, the brushing of our teeth, the dressing for work — every routine task of every day — would take a glacial pace and tire us out. Routine tasks are routine because they help us conserve energy. That helps our slow brain become available only when we need it the most.

But let’s face it, despite having brains that can operate in both slow brain and fast brain mode, we do come with limitations that can impact us adversely at work, at home, and on the road. Doing important things correctly and at a greater frequency is required in certain situations.

One of those is driving.

When driving a vehicle, we are vulnerable to a negative outcome, or “exposure,” due to a range of hazards: the condition of the vehicle’s critical systems, weather conditions, road design, and actions of other drivers. Hazards from the driver’s perspective include how he or she interfaces with the vehicle’s design and

system, their physical or mental state, and distractions inside the car that cause them to lose focus at the wheel.

The most important factors in driving is the reliability of the vehicle and whether the driver is focused on successfully completing their route. Success does not mean arriving at a destination without an accident. Success means being *situationally aware* and therefore noticing all the potential hazards and responding to them correctly so exposure is reduced.

Improving Situational Awareness In Our Decisions

The term “situational awareness” is often used when people miss something important at work that leads to injury or an operational failure or slowdown.

But if we are honest, we may have been in a similar situation in the past, yet the outcome wasn’t negative and life moved on without incident.

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Think of all the factors that can impact awareness: cognitive fatigue, the cognitive loading involved in a particular task, the various distractions all around us, and the fact that our brain defaults to the use of habits to conserve energy. For these reasons it is prudent that organizations proactively grow situational awareness, especially for those tasks with inherent Serious Injury or Fatality (SIF) potential.

We already know when and where most people are challenged to remain consciously aware of key features of their surroundings. Simply requesting that employees “remain situationally aware” is not a strategy informed by science and will always be met with skepticism and flawed execution.

This is because simply telling people to be situationally aware doesn't teach them how to:

See more deeply and broadly.

Think through actions prior to taking action.

Know what is the right action and when to take it.

Know when to **intervene** and say something (challenging the social brain).

We need to consider how can we improve situational awareness when it matters most. How can we make good decisions while focusing on the important things in life including our relationships at work and at home? When unplanned events occur, there are almost always precursors that can seem obvious in hindsight but were fully missed.

This is part of being human. We all have all gotten important things wrong, and in some cases terribly wrong. What will help is making some important decisions in advance and socializing them on a regular basis to ultimately improve the quality of our decision-making.

An example might include knowing which goal conflicts are likely to arise and then effectively managing those goal conflicts to avoid mistakes in the moment. Other decisions require more effort and training.

Becoming More Purposeful In Our Actions

The good news is that some applied human performance interventions can help prevent the big deal mistakes from occurring. They include becoming more sensitive to weak signals when something doesn't feel quite right, whether they involve health, relationships, or safety.

A strategy that works well is embedding prompts through critical work tasks that spark an individual to see an exposure, think through their actions, and take action when required or know when to intervene. This requires deliberative slow brain processing at pre-selected times and nudging our fast brain via cues in the environment to take a desirable action.

Teaching employees about how their attention really works helps create engagement around using human performance tools like physical hazard inspections — Take 5s, 6s, etc. — given the natural limitations that come with being human. When leaders and teams understand what is most likely to occur on the human side of things in safety relevant situations including meetings, work planning, and work execution, everyone becomes more purposeful in their planning and execution.

Designing work environments and work processes with the employee's brain in mind reduces exposure and builds human performance reliability. The same is true when we refine tools like job briefings, standard operating procedures (SOPs), and training to improve reliability and reduce critical errors.

Improving situational awareness is about embracing the limitations of our brain, building individual and team capabilities, creating an environment where critical information is available in the right format at the right time, and designing systems that have built-in error forgiveness. So let's commit to losing the reference to “lost” situational awareness and ask the question: “How can we support situational awareness here?”

So let's commit to losing the reference to “lost” situational awareness and ask the question: “What are we doing through our leadership, culture, systems and process to create situational awareness?”

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