

# Human Factors

## What are you really doing about them?

By Larry Wilson

Many companies organise training sessions on human factors, but what do they really gain from them?

This is a brief summary of a chat I had with a corporate safety director from a multinational pharmaceutical company (with 7,000 employees).

“Yes, of course we also cover that,” he said while we were rushing through a convention centre. “We provide several training sessions on human factors.”

“So, what do you teach your employees?” I asked.

“Well, we talk about the problems caused by rushing, fatigue, stress and those types of things, you know,” he said.

“And do you tell your employees not to rush?”

“Exactly,” he said.

““And what are we doing right now?” I asked.

“Well, I can’t help it,” he said. “I have a meeting at 1 pm and I can’t wait for the shuttle.”

“But we’re rushing,” I subtly commented.

“Yes, I know.” “But as I said, I have a meeting at 1 pm and I’m the host.”

“So,” I discreetly said, “even though you know that being in a rush can cause problems and despite having taken several training sessions on human factors, you’re still rushing so you won’t be late for your meeting?”

“Don’t you think we should offer people tools that help them handle Rushing, Frustration, Fatigue and Complacency instead of simply speaking about the errors that these four states cause, and telling them not to run, get frustrated, complacent or tired?” I asked.

“Like what?” he asked.

I gave him a business card and in less than three minutes I had explained four techniques that can be used to handle these states.

“Interesting,” he said. “I am going to tell my colleagues about it.”

### Telling someone about a risk is not enough

Even if Rushing, Frustration, Fatigue and Complacency could be taken away from the work environment, I couldn’t imagine these states not being part of rush hour any time soon. And what’s more, how many people think that “identifying” a problem is enough? (Probably the same amount of people that think that telling someone about a risk is enough).

I don’t want to say that telling people about risks and human factors is a bad idea; it’s just not enough. Simply telling someone about a risk is not going to stop an error from occurring; it simply takes away the element of the unknown.

But “not knowing” is not significant these days and only represents 1-2% of injury causes. However, we all know that Rushing, Frustration, Fatigue and Complacency are huge injury causing factors. And unfortunately most people do not learn that in a human factors training session. They learn it through injuring themselves between 5-10 thousand times, including all the bumps, bruises, cuts and scrapes that they suffer over their lifetime.

We have huge problems related to Rushing, Frustration, Fatigue and Complacency (factors that contribute to 98-99% of all major injuries). So what can you do about it? Hope everyone at your facility gets luckier? Luck is a factor, especially when it comes to major injuries. However, you probably wouldn’t be doing your career any favours if you were to tell your manager that your plan to reduce work-related injuries by 50% or more was to buy all the staff members a lucky charm with the company logo.

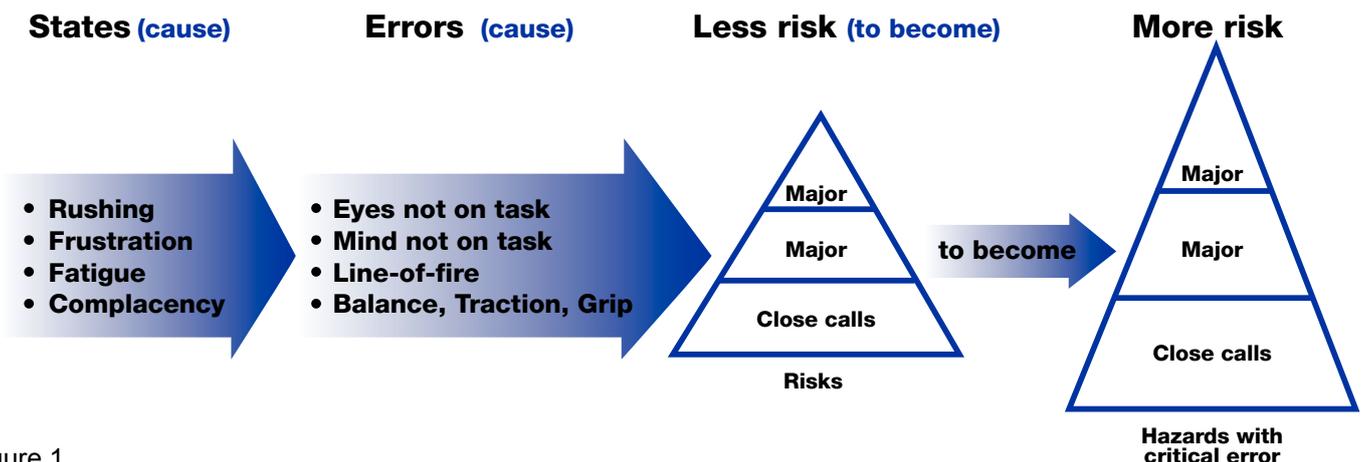


Figure 1

## Skills and techniques

There is something that you can do to significantly reduce the impact that human factors have on most injury-causing errors. Not all errors and mistakes get you hurt. Some errors only make us waste time and money or cause embarrassment. Critical errors, on the other hand, can expose you to hazardous energy. There are four critical errors that are involved in or are contributing factors to 98-99% of all major injuries, on or off the job:

1. Eyes not on task.
2. Mind not on task.
3. Moving into (or being in) the line-of-fire.
4. (Loss of) Balance, Traction, Grip.

Just telling someone about these errors is not enough to avoid them. If we were to combine these four states with these errors, we'd have something that people can use.

This happens because these four states are also involved in or are contributing factors to 98-99% of more serious injuries, on or off the job. Given that states almost always lead to errors, we could use them as triggers, that could stop us from making an injury causing error. For example, when you realise that you're in a rush or you're tired or frustrated, you can quickly think whether you have your eyes on the task, your mind on the task, if you're in the line-of-fire or have lost your balance, traction or grip.

In most cases, the fact that you are thinking about these four states is enough to prevent the error from occurring. It may take some time for these error reducing techniques to be automatic, but with a little effort, most people master these skills in the short term. This also depends on the effort you make, which means that people must be motivated enough to do it.

Unfortunately, Complacency -the fourth state- is not as easy to trigger on, or to self-trigger on as the other three states. This happens because Rushing, Frustration and Fatigue are easier to notice.

Complacency, on the other hand, happens naturally to all of us after we get used to something. It is much easier to consider the risks and hazards the first time we perform

a task, but it is not so easy once you have done it hundreds or thousands of times. When these risks are not so concerning, your mind wanders (we all do it). We therefore have to make people understand that since they do not always have their "mind on the task", they will have to make sure that what they usually do time and time again is definitely safe.

For example, if you can make the effort to maintain a safe distance when driving, your subconscious will maintain this same safe distance for you, even if your mind has a momentary lapse of concentration. Similarly, if you always drive within the legal speed limit, you're not likely to go over it by 15 or 20 mph if your mind drifts off.

## Fighting Complacency

While improving your habits will help you compensate for Complacency that leads to "mind-not-on-task" errors, it is always best to think about what you are doing, especially if there is hazardous energy around. And this is because only your mind can anticipate a hazardous situation that is about to happen. Good habits and good reflexes are not always enough to keep you out of danger, especially if someone else's mistake could also get you hurt.

To fight Complacency, you need a way to "pull your mind back into the ball game". Teaching people to identify these risk patterns in others (see figure 1) will make this possible.

Whenever you come across someone rushing, constantly changing lanes without indicating because they are on their phone, you will automatically think about what you are doing.

If what you see really shocks you (i.e. seeing someone painting their fingernails while driving at 70mph), you will do more than just think about it. You will probably react to it, by getting out of the line of fire (by speeding up or slowing down to make sure you don't get hit). However, once again, you need to make a certain degree of effort to achieve this skill.

Every time you make a critical error, whether it caused a close call or a very minor injury, ask yourself "Was this caused by a state like Rushing, Frustration or Fatigue, that I didn't self-trigger on quickly

enough? Or was it Complacency, leading to "mind not on task" and "mind not on task" leading to other critical errors like line-of-fire?"

Analysing close calls and minor errors -instead of ignoring them- will help people continually improve by showing them what skills and habits they need to work on.



### About the author

Larry Wilson has been a behaviour based safety consultant for over 25 years. He has worked with over 500 companies in Europe, North and South America and Asia Pacific. He is also the author of SafeStart, an advanced safety awareness program currently being used by over 3,000,000 people in 60 countries worldwide and in 30 languages.

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