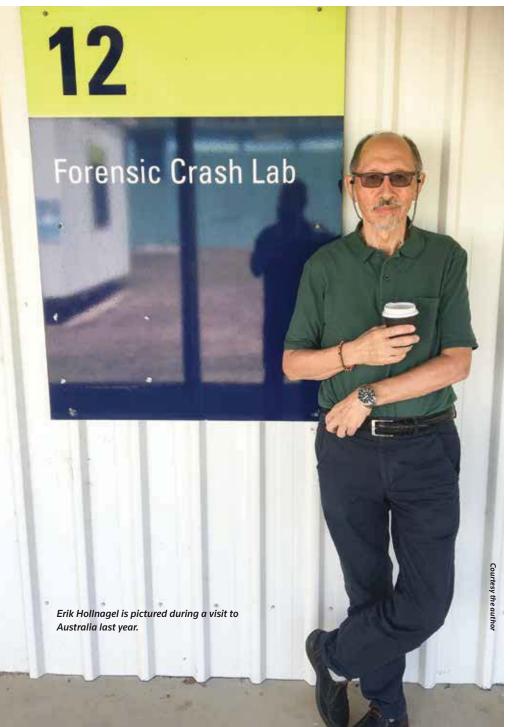# MYTHS AND
MISUNDERSTANDINGS

ERIK HOLLNAGEL takes up our challenge to describe how his concept of Safety-II has sometimes been misinterpreted.

Erik Hollnagel is pictured during a visit to Australia last year.

Courtesy the author

Earlier this year the editor challenged me to write a few words in response to this statement: "Your ideas have been taken up by safety people around the world but perhaps not always in the way you might expect. Discuss."

As you can see, I was unable to resist the temptation.

The "idea" referred to was Safety-II, the proposal – or perhaps proposition? – that there is more than one way to understand what safety is. It is usually taken for granted that safety can be defined as the freedom from unacceptable risk, the absence of unwanted outcomes, or words to that effect, and that this can be achieved by preventing accidents and incidents from taking place.

This is a perfectly natural position, since no sane person would hope for something to go wrong or for harm to befall themselves or others. Yet it is also possible to define safety as the presence of acceptable outcomes, and to strive to achieve this by ensuring that things go well rather than by preventing them from going wrong.

The terms Safety-I and Safety-II were suggested as a convenient way of referring to these different interpretations. Despite earnest efforts to make this clear from the very start, misunderstandings and misinterpretations soon appeared.

(For a summary of how it all began interested readers can visit safetysynthesis.com/safetysynthesis-facets/safety-i-and-safety-ii/index.html)

The most common misunderstandings are discussed in the following.

SAFETY-II IS NOT INTENDED TO BE A REPLACEMENT OF SAFETY-I. INDEED, SAFETY-II IS NOT A NEW DISCIPLINE OR **A NEW PRACTICE BUT RATHER A NEW PERSPECTIVE ON WHAT HAPPENS AND HOW IT HAPPENS.**

MISUNDERSTANDING #1: SAFETY-I AND SAFETY-II ARE OPPOSITES

One common misunderstanding is that Safety-I and Safety-II are opposites, hence competing with each other. This misunderstanding is hardly surprising since humans have a preference for binary thinking, ie for considering things in an "either-or", "right-wrong" way that avoids any subtleties or consideration of third or more alternatives. Thinking in binary terms may seem to make life simpler, although experience shows that is never actually the case. But presenting Safety-I and Safety-II as opposites is a way to justify remaining with the status quo rather than venture into the new and unknown.

I have indeed several times been met with the argument that "since we have not finished with Safety-I it is too early to move to Safety-II".

MISUNDERSTANDING #2: SAFETY-I IS REPLACED BY SAFETY-II

A second misunderstanding, which in a sense follows from the first, is that adopting a Safety-II perspective requires a wholesale replacement of tried and tested methods by new ones, and that established practices therefore must change.

Even when Safety-II is looked at in a favourable way, the assumed cost of such changes will understandably make most people hesitate. But Safety-II is not intended to be a replacement of Safety-I. Indeed, Safety-II is not a new discipline or a new practice but rather a new perspective on what happens and how it happens. The new perspective provides another way of looking at events, how they are analysed, and how the results are interpreted.

A Safety-II perspective may also be the basis for considering other ways to analyse events and to develop alternative recommendations, but as co-existing with established practices and approaches rather than replacing them.

MISUNDERSTANDING #3: SAFETY-II WILL BE MORE EXPENSIVE AND REQUIRE MORE RESOURCES

A third misunderstanding is that Safety-II requires that attention is paid to "everything" that goes well. Many have used this to argue that since the time and resources needed to look and understand what goes wrong often are insufficient, it will be impossible to look at "everything that goes well".

Another version of this misunderstanding is that Safety-II only looks at that which goes well and disregards that which fails or goes wrong.

Yet a Safety-II perspective does not mean that everything that happens must be observed, recorded or analysed. The argument is rather that we should try to understand why work goes well, in addition to trying to understand why it sometimes fails. A Safety-I perspective looks at events based on the severity of the outcomes, and spends (dis) proportionally more time and resources on serious events than on less serious ones.

A Safety-II perspective suggests that we should also pay attention to events that occur often, hence select them based on frequency rather than severity alone. That which happens all the time is clearly important because it is essential for work that goes well. We need to understand what happens when "nothing" happens in order to facilitate, support, and sustain it. We can try to be safe by preventing accidents, by avoiding what we do not want to happen. But we can also try to become safe by making sure that work goes well, simply because something that happens cannot go well and go wrong at the same time.

MISUNDERSTANDING #4: SAFETY-II WILL BE FOLLOWED BY SAFETY-III, AND SO ON

A final misunderstanding for now is that Safety-I and Safety-II indicate a progression. Even though the use of Roman numerals tried to prevent that, some people have referred to Safety 1 and Safety 2 – or even Safety 2.0 – and consequently thought that there would also be a Safety 3, and so on. But the terms describe a rhetorical rather than a numerical relationship, hence represent a difference rather than a progression.

Safety-I looks at the infrequent events that have unacceptable outcomes. Safety-II looks at all events regardless of their outcomes, but in particular at events that occur frequently.

Since Safety-II is concerned with everything that happens (and not just with things that go well or the positive surprises), there is nothing more to look at. QED.

THE BOTTOM LINE

I hope that these comments can counteract the several misunderstandings of what Safety-I and Safety-II means. To repeat, Safety-I and Safety-II are names or labels for different ways of looking at how things happen. The difference is not related to what the goal is, namely to be free from harm, injury, loss, etc.

The two perspectives differ in how this goal can best be achieved – only by preventing things from going wrong or also by ensuring that things go well.

*Denmark-based **Erik Hollnagel** is regarded as the originator of Safety-II. He is senior professor of patient safety at Jonkoping University and professor emeritus at the University of Linkoping, among other academic positions.*

RESPONSES

We asked three Safety-II practitioners to reflect on these questions:
• How has Safety-II changed your thinking about H&S?
• What has proved the most challenging part of putting Safety-II into practice?
• Given your focus on Safety-II, where does Safety-I fit?

Focus on the process

I always approached safety differently. Rather than changing my thinking, Safety-II confirmed others in the field shared my views on creating safe and productive environments. Erik Hollnagel's Safety-II book provided me with the means to articulate my approach in an easy-to-understand language.

My approach to safety developed from the earliest beginnings of my career as an analytical chemist in a research laboratory. Asking questions, exploring and analysing why any process fails or succeeds is second nature. I always look at work and the associated performance, efficiency and repeatability from a process perspective:

• Do we have an effective process – is the process adequate to deliver the intended outcome?
• Can we be more efficient – are we doing things correctly or can the process be improved upon?
• Can we reduce our waste – is there an opportunity to eliminate unnecessary tasks, reduce physical waste, minimise time on task?
• Do we have the right tools – what does our team need to perform their best work?

Later in my career, when I progressed from quality management to H,S&E management, I was puzzled that while quality was seen as an emergent property of the process, safety was not. My analytical mind could not reconcile this disparate approach.

MINDSET SHIFT

Organisations typically use lagging indicators to measure their results. Implementing Safety-II requires a mindset shift, not only with the leaders in the team, but also the frontline staff. It requires continuous action and commitment, even though everything may seem under control.

Safety-II does not wait for things to go wrong, instead it actively focuses on gaining a better understanding of processes, tools and systems to create an environment for people to succeed. The "if it ain't broken, why fix it?" mentality is distracting, as only lagging indicators are considered. The underlying risks people expose themselves and others to, while performing their daily tasks, are often overlooked. Lack of incidents does not translate into lack of risk.

WORK-AS-DONE GAP

I have participated in numerous discovery sessions with frontline staff, and their stories of how people close the gap between work-as-imagined and work-as-done have shocked and amazed me. One man said he spent at least two hours daily hunting for equipment; another man used his phone to determine room temperature for a critical task because he couldn't find a thermometer.

These issues create frustration when companies expect people to perform at their best and meet performance targets, but do not set them up for success. In the examples above, these discoveries led to outcomes which saw the facility redesigned to operate like a Formula One pit garage, with everything needed to perform the task within arm's length and placed in a dedicated location. The planning process was also reviewed, ensuring multiple teams were not scheduled to perform similar tasks. These actions, although not directly related to safety performance or improving the lag indicators, improved efficiency, quality and engagement – and subsequently reduced overall business risk, including safety risk.

LET PEOPLE SPEAK

Having experienced the passion of the frontline in sharing their truths, could a similar discovery session at Boeing, before the 737 Max launch, have saved 346 people? I'm sure the Volkswagen emission scandal could have been avoided too. People want to speak up. They want to do what is right, by them, their fellow colleagues and the business. We just need to create the opportunity.

Lastly, it requires relentless commitment and courage from management to stay on track, even though the lagging indicators may not follow suit immediately. Success should be measured by leading indicators, showing progress, engagement and impact.

It's about taking the best elements of Safety-I and Safety-II and amalgamating them to achieve the desired outcomes. Erik positions Safety-II as a complementary view, allowing practitioners to question the assumption that the system is inherently safe and that the people using the system are the problem.

I see Safety-I as the compliance part of safety, with a reactive focus: investigating and reacting to what went wrong and holding "problem" people accountable. Our legal frameworks continue to drive this thinking, and without a significant shift in approach by regulators we are stuck with it.

That said, you cannot focus on Safety-II activities if you have processes that are legally non-compliant. How you rectify the problem is very different when applying Safety-I vs Safety-II philosophy.

Safety-I will see you add more rules, where Safety-II will reduce the rules, providing people with more freedom and responsibility inside the framework.

*Sydney-based **René van der Merwe** is head of safety, health, environment and quality with management consultancy SPG Projects.*

Building a new toolkit

The health and safety profession has historically focused on reducing the number of incidents and accidents in the workplace. This focus on zero harm has significantly reduced the amount of fatalities and life-altering injuries, however in recent years that trend has started to plateau in most high-risk industries, leading to little to no year-on-year improvement.

Safety-II provides a new perspective to an old problem. We spend nearly half our life at work. We spend more time with our colleagues than our friends and family, the people we choose to have in our lives. Rather than just focusing on keeping our people uninjured, Safety-II allows us to ask the question, what if they went home better than when they came to work?

Safety-II encourages a holistic understanding of work where we try to understand what makes work successful, and to build off that positive capacity, and where we can improve to ensure a resilient workplace overall.

ABSENCE VS PRESENCE

In business there is an overused (but true) saying that what gets measured gets managed. In the safety space the way we judge how well we are doing is by reviewing the *absence* of safety, namely our LTIs and TRIFR rates. To understand the positive *presence* of safety we need to change the way we measure it in our organisations.

This is challenging because when we are at our safest at work, we don't tend to see it because it is known as "doing your job well". Rather than relying on at times flawed reporting, we need to include our frontline experts in the safety conversation to proactively improve the way work is done.

NEW TOOLKIT

There is a common misconception that Safety-II is in opposition to or the antithesis of Safety-I, whereas in reality it is an extension of our discipline. Safety-I or traditional safety approaches investigate incidents and accidents in order to prevent them happening again. This is an important and necessary part of understanding work and keeping our people safe.

Safety-II extends this worldview from focusing on when work goes wrong to including when work is successful. We have spent a number of years forming a great toolkit around the Safety-I approach, such as investigation techniques, statistical analysis and critical risk control.

Now we need to invest our time, energy and resources into the Safety-II toolkit.

Michelle Oberg is safety innovation lead with Downer in Queensland.

Remaining curious

I first experienced a different way of thinking about safety when I worked for an airline and the whole crew/cockpit resource management idea was taking shape. I found the ideas of open and honest communication, being allowed to raise and discuss issues without fear of recrimination or blame echoed back on my earliest days in the profession as a regulator.

Unfortunately, however, it seemed impossible to even imagine this sort of approach being adopted in organisations more broadly.

It wasn't until I was faced with the perennial problem of the performance asymptote (accident performance that just won't get any 'better') that I was forced to face this problem once again. I was fortunate to be involved in a small group that included Sidney Dekker and Daniel Hummerdal. Between us, we figured out ways to operationalise some of the safety differently principles into practical tools and approaches.

RELUCTANCE TO CHANGE

The biggest challenge in this has always been the health and safety profession's reluctance to change and relinquish authority. Operational managers seem to be quite open and receptive to these ideas, but the safety profession seems to fear that this will lead to a loss of authority – whereas the real risk lies in the fact that if we *don't* change, we run the risk of being marginalised in the modern world of work.

Safety-II hasn't changed my way of thinking. I have always felt uncomfortable with the idea of a perfect, accident-free organisation. What is has done is allow me to express these beliefs through a new framework, with a new lens on human and operational performance.

NOT EITHER/OR

I don't see this approach as a wholesale replacement for traditional safety or Safety-I. Certainly it challenges some of the fundamental principles upon which traditional safety is constructed and delivered, but I like to think that a blend of the two is required. As Hollnagel points out, it's not Safety-I *or* Safety-II, it's Safety-I *and* Safety-II.

We need to remain open and retain the ability to be surprised by what is happening around us. The innate sense of curiosity that this new view demands goes a long way to ensure that this will be a constantly changing landscape. I think this ability to constantly re-examine what's working and what's not is one of the real legacies of the new view.

John Green is senior vice president and chief safety officer with Aecon Group, based in Toronto.