Belief in the Impossible
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“Impossible is just a big word thrown around by small men who find it easier to live in the world they’ve been given than to explore the power they have to change it. Impossible is not a fact. It’s an opinion. Impossible is not a declaration. It’s a dare. Impossible is potential. Impossible is temporary. Impossible is nothing.”

– Muhammad Ali

Thirty hours and 40 minutes following the launch of the Apollo 13 mission to the moon, a loud bang was heard. The rupturing of an oxygen tank would drive NASA to abort the moon landing and redirect all of its resources to bring the astronauts home safely. Although NASA had planned for many potential hazards, the general prognosis of an in-flight issue such as this was not positive. Yet, as each and every issue came up, the teams of engineers, flight controllers, and astronauts worked to ensure that they could return home safely.

Shortly after the explosion, one of the critical issues identified was related to dangerous levels of CO₂ in the cabin. The Lunar Module had two round filters designed to remove CO₂ for two individuals for two days. Unfortunately, this cabin now housed all three astronauts and needed to be able to remove CO₂ for a total of four days. There was a similar type of filtration mechanism on the Command Module, but the filters themselves were square, as opposed to round. As CO₂ levels rose to unsafe limits, there was limited time to literally fit a square peg in a round hole.

The scene was tense. Engineers on the ground were asked to perform the impossible. They were limited to what could be salvaged on board—space suits, hoses, pieces of plastic, duct tape—and they had to design and communicate the solution before the crew began suffering the effects of insufficient air.

The ingenuity of these engineers, and the subsequent challenges they all overcame, tell us something particularly poignant about the drive for safety and the commitment to bringing everyone home safely. The assumption after the explosion was that the crew would not likely live. The attitude of the individuals, their actions, and their belief told another story.

Failure was not an option. These individuals could be saved.¹

All Injuries are Preventable

A fundamental tenet of organizations that have strong safety programs and performance is an underlying belief that all injuries are preventable. Since 1999, the DuPont Safety Perception Survey™ has helped organizations evaluate employees’ perceptions of their safety programs and to identify behaviors, attitudes and other factors that can derail a safety program. An extensive database of two million responses, across a variety of industries, has been developed. Among companies participating in the DuPont Safety Perception Survey™ with total recordable rates below 1, lost workday injury frequency rate below 0.25, and zero contractor or employee fatalities in the previous five years, 94 percent of their employees believed that every injury was preventable.
This differs sharply with the responses provided by the remainder of the survey sample: at the median, only 36% of respondents believe that all injuries are preventable.

This is a striking contrast – a vast majority of organizations either have not incorporated this message and process into their safety programs, or fundamentally, the culture does not support the rhetoric put out by safety and health professionals. Either way, for large populations of most organizations, the unwritten mantra may be “accidents happen.”

The Argument Against

Often, there is pushback against such a significant and absolutist statement about how all injuries can be prevented. The argument often moves immediately to extremes – “How can I prevent someone from colliding with my vehicle?” or “How do you expect us to prevent earthquakes and tornadoes?” for example.

The arguments continue down the line, suggesting the natural degradation in materials that results in a failure of personal protective equipment or mechanical failure resulting in injury cannot be prevented. Detractors often having gone through a litany of examples, unleash their final and presumably most influential argument against the sentiment of all injuries being prevented: We are all human, and we make mistakes. They claim that ‘all injuries are preventable’ is unrealistic and insulting. They claim that the belief in all injuries being prevented is a simple case of hindsight bias.

In some ways, the detractors are correct. It is not possible or prudent for organizations to invest infinite sums of money to prevent incidents from occurring, in particular, those caused by events considered an “act of God.” Furthermore, there is a certain amount of hindsight bias that creeps into the process naturally. We are, after all, subject to the second law of thermodynamics – entropy always increases.

Perhaps this should put a nail in the coffin of this fundamental belief, but the results speak for themselves. There is a strong correlation between safety performance and this long-standing, fundamental belief. That correlation and language are important. The general belief, as written, doesn’t suggest that incidents will not occur, or that natural disasters could be prevented. It does, however, suggest that safeguards should be in place to ensure that employees (and the public, and the environment) are protected accordingly. The fundamental tenet then is not that incidents are preventable, but that injuries are.

And let’s be clear, the language most certainly does not use the term “accident.” Indeed, according to the Oxford-English dictionary online, accident can be defined as “an event that happens by chance or that is without apparent or deliberate cause” followed by its use in a sentence: “The pregnancy was an accident.” Fundamentally, the word accident implies a level of chance and lack of reason that cannot be explained away. Though, it is fair to say that most elements described as “accidents” still have root causes and means of protection not entirely due to hindsight bias.
Why We Should Believe

Ultimately, the goal in any safety and health program is to reduce risk, to increase risk controls or measures and to reduce making decisions that involve unnecessary levels of risk.

Change comes in two forms – you can change the system (for instance, by making a facility more structurally safe) or you can change the individual’s approach to operating within the system. The latter is why we should believe.

For two of these three influences, having a broad belief that injuries are preventable can have a measurable influence on the actual behavior outcomes.

If the organizational social norm is that not all injuries are preventable, even individuals who do believe all injuries can be prevented, and who are capable of making safer and wiser decisions, may not. The norms provide a negative influence. It also reinforces the behavioral shortfall for individuals who fundamentally don’t believe. Furthermore, the organization may not emphasize the consequences of the action, creating a more robust belief that “accidents happen.”

To that end, a little belief may go a long way – showing that individuals are able to act this way, are trained to act this way, and are part of the collective belief system of the organization can drive measurable behavior change.

Perhaps the fundamental debate around “all injuries being preventable” is mere semantics. The potential outcome would indicate even a cursory attempt at instilling this belief within the culture could have measurable impact on the organization.

That said, it is worth noting that if an organization does truly embrace the idea that all injuries can be prevented, significant outcomes can be achieved. Take for example two critical additional questions from the DuPont Safety Perception Survey™: What is the priority you personally give to safety and what is the priority you believe your colleagues give to safety? Among the highly successful safe companies as defined earlier, of the 94 percent of employees who said all injuries were preventable, 96 percent say safety is their first priority. And 91 percent believe that their colleagues say the same.

Contrast this with the rest of the survey population, where the median response for personal priority was 80 percent, and where colleague priority was a shockingly low median of 54 percent.

In short, nearly a quarter of employees in most companies don’t have safety as their first priority. Presumably, those are the employees who would say, “when push comes to shove, another corporate objective is more important than my safely returning home tonight.” And almost half don’t trust their colleagues’ priorities.
If you take into consideration how much social norms influence behavior, it’s clear that this lack of belief can lead to significant and catastrophic outcomes.

Making it Real

Assuming that belief is the objective, there are three critical areas that can move the needle.

Figure out where you stand

One cannot adjust the social norms without measuring them, and identifying the problem areas. It is important to assess your current situation and identify pockets of success as well as areas of concern. High concentrations of negative perception can often be balanced by finding equally large concentrations of individuals who are doing it right. Blindly pushing a program without insight, however, is costly and draconian. So conduct a cultural perception survey to benchmark perception in your organization, help identify areas of concern and prevent incidents before they occur. Then repeat the exercise every 18 months to two years to monitor progress.

Lead safety with integrity and purpose

Make sure your leaders understand the difference between managing and leading, and make sure they understand their role in leading safety with integrity. In order to achieve this, you’ll need coaching and training, and you’ll have to emphasize some softer skills. This means focusing on how your leaders speak, how they communicate with employees and each other, and how to build an environment where there is significantly more “near-miss” and “close call” than there are incident investigations.

Develop a communication and training program that supports long-term belief

In the end, a lot of this comes down to how you say what you need to say. A common language, a strong brand image, and consistent and persistent communications are critical. Your employees need to know that no matter which manager they are working with, the system is working for them. And they need to be able to report back the key elements of your safety program. Most importantly, they should have some form of “every injury is preventable” as part of their daily mantra and work routine. This is not necessarily as simple as it sounds, but the benefits of affective-based communications are not only real, but measurably beneficial.
In Conclusion

Safety is not only a critical priority in any company, it should be the first priority.

The question is what are you doing today to drive long-term sustainable success in the safety culture of your organization? How will you commit to zero injuries? How will you drive performance that is not satisfied until every constituent in contact with your organization is going home safely?

So why is it the people in mission control kept pushing beyond the limits to save three men in the vast distance between the earth and our nearest satellite? Gene Krantz, the Flight Director of that fateful flight of Apollo 13, shares the following anecdote in his biography:

“The term we used was ‘workaround’ — options, other ways of doing things, solutions to problems that weren’t to be found in manuals and schematics. These three astronauts were beyond our physical reach. But not beyond the reach of human imagination, inventiveness, and a creed that we all lived by: ‘Failure is not an option.’

Indeed, even as they extended beyond all the safety precautions and engineered solutions they had at hand, it was the dedication of a well-trained workforce working under the same mantra that found a way and saved those men from harm.

And if they can do it from beyond the limits of our own planet, surely we can achieve the same. We just need to believe we can.

²Failure is Not an Option, Gene Krantz, 2000.

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