Behavioural Safety in Construction

Issues Forum
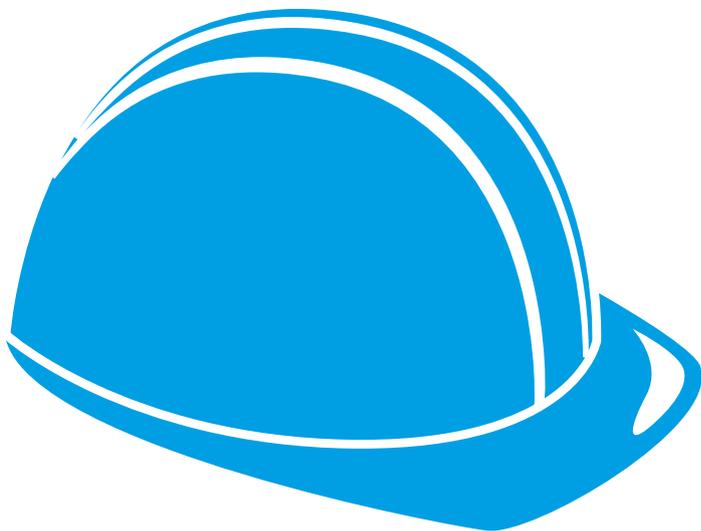
INSPECT BEFORE
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Issues Forum

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The research and development agency of the HSE – The Health & Safety Laboratory – believes that over 90% of accidents may be attributed, at least in part, to the actions or omissions of people.

Extreme examples of accidents attributed to the actions or omissions of people include Buncefield in 2005, the West Fertilizer Company, Texas in 2013, and in the 1980's, perhaps the worst decade for major accidents, The King's Cross Fire (1987), the Herald of Free Enterprise disaster, the space shuttle Challenger explosion (1986), Piper Alpha (1988) and Chernobyl (1986).

In 2012-2013 the cost of ill health and injury to the construction sector in the UK totalled £1.1bn, consisting of £0.4bn for ill-health and £0.7bn for injury.

The UK construction industry accounts for significantly more work-related ill health and muscular-skeletal injuries than the 'all industry' average. Whilst employing only 5% of workers in the UK, Construction accounts for 10% of reported major injuries to employees, 6% of employee injuries lasting seven days or more and 31% of all workplace fatalities – the highest of all the industry sectors. [1]

The need for continuous improvement around health and safety at work is clear, yet this raises a question: if employees and managers are already familiar with health and safety law and their own organisation's policies, why is there still a problem? Why do people continue to act unsafely and fail to address the unsafe actions of others?

Advocating a Behaviourally Focused Approach to Safety

Behaviour can be described as: 'The way in which one acts or conducts oneself, especially towards others.'

When considered within the wider context of a particular culture, it becomes apparent that individuals' behaviours, and the perceptions that drive those behaviours, are key to determining the safety performance of an organisation.

An organisation's safety culture can be broken down into three main elements:

• Psychological aspects – How people feel.

• Behavioural aspects – What people do and say.

• Situational aspects – What we have.

Leaders need to ensure positive engagement with each of these elements. People's roles usually dictate how much control they have over each of these elements, but their influence will be dictated by their skill and desire to affect a difference.

The belief cycle

Underpinning behavioural safety is the belief cycle.

Behavioural Safety Leadership succeeds or fails on whether the workforce believes that what is expected of them by the organisation is right. Once they do agree with the organisation's expectations, their emotions follow, and so the cycle continues. However, to achieve this people need to feel their leadership is authentic, consistent and aligned to the values of the organisation. As with many other aspects of organisational life, the key to leading a safety culture lies in what is done, not what is said will be done.

Belief → Feeling → Behaviour → Outcome → (cycle)
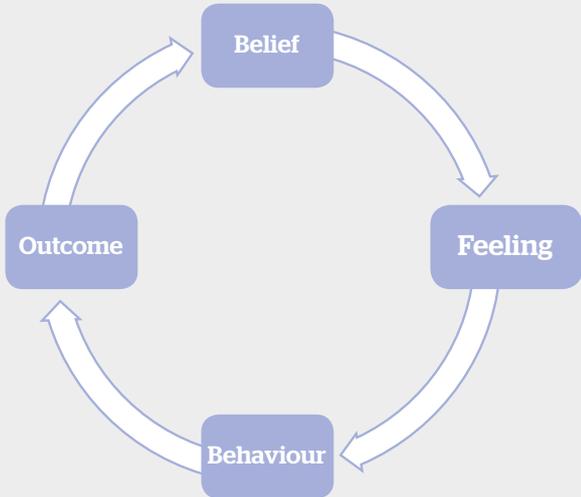
Behavioural safety leadership

Just as employees' behaviours ultimately dictate the performance of any task, the safety behaviours and perceptions of a workforce are largely governed by the leadership that is demonstrated to them. In their paper 'Leading health and safety at work' (2013)[2], the HSE outlines a number of essential safety leadership principles:

Strong and active leadership from the top:
- Visible, active commitment from the board.
- Establishing effective 'downward' communication systems and management structure.
- Integration of good health and safety management with business decisions.

Worker involvement:
- Engaging the workforce in the promotion and achievement of safe and healthy conditions.
- Effective 'upward' communication.
- Providing high quality training.

Assessment and review:
- Identifying and managing health and safety risks.
- Accessing and following competent advice.
- Monitoring, reporting and reviewing performance.

What might some of these look like when translated into safety leadership actions by managers and people 'on the ground'? A few suggestions are:

- Clear expectation setting through regular, good quality and interactive team briefs and toolbox talks.
- Dynamic (continuous, quick, on-the-job) safety conversations based on observed behaviours – the good as well as the bad.
- Daily or weekly workforce/team updates on safety successes and failures.
- Reporting of, and empowering others to report, near misses.

- Reporting and monitoring of corrective actions.
- 'Open door' support for all issues that link directly or indirectly to safety.

Hudson's Safety Culture Ladder (figure 1) outlines five steps that lead to a 'Generative culture' – one that is aligned to best working practice, in which everybody accepts safe working practices and approaches all tasks in a way that demonstrates consciousness and risk awareness.

Why consider a behavioural safety programme?

Over the years there has been lots of discussion around the very concept of behavioural safety and its use within organisation-wide culture change programmes both in and outside of construction. There have been arguments stating that an over reliance on an individual's behaviour places the blame on

figure 1 **Hudson's safety culture ladder**

Trust and accountability high

Information-sharing high

Generative – "Safety is the way we do things round here"

Proactive – "Let's find and solve any remaining problems"

Calculating – "We manage risks through our systems"

Reactive – "We respond quickly to accidents"

Pathological – "Just don't get caught"

Trust and accountability low

Information-sharing low
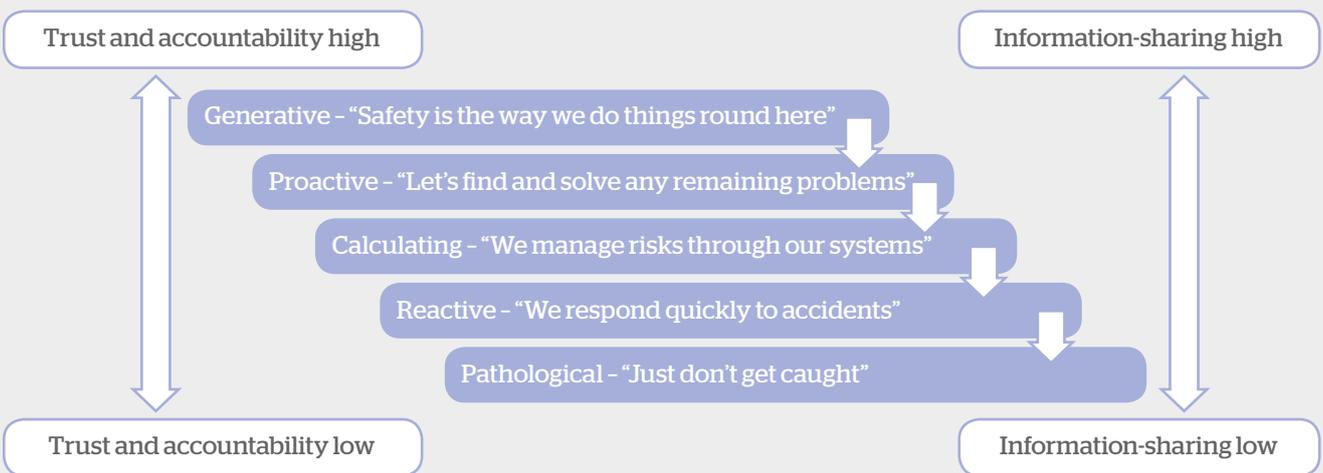
This can be viewed as an evolutionary ladder, with the lowest rung, 'Pathological culture', indicating an environment where little or no thought is given to health and safety, let alone wellbeing and the environment. This type of culture tends to be driven by regulations and the principle of 'not getting caught'. As a safety culture develops and progresses, it would move up the ladder through

Reactive, Calculating, Proactive and finally Generative, we can see the expected progression of a safety culture.

The two driving factors that allow a culture to mature towards being Generative are inextricably linked to the leadership of the workforce:

1 Information is increasingly shared between employees and leaders.

2 There is increasing trust and accountability between employees and leaders.

This reinforces the idea that leadership behaviours, even more so than systems and procedures, dictate the behaviour of a workforce and, in turn, the culture. This will directly determine how many accidents occur.

the person, rather than the organisation, and ignores the root hazards that may lead to an incident – the situational, procedural and organisational factors that may be implicit in an unsafe condition.

Highly publicised cases of 'behavioural safety' being used as an excuse to silence, or even dismiss, employees whom an organisation deems 'trouble makers' (for whatever reason) has further discredited the use of behavioural based approaches to safety – and this cannot be ignored.

It must therefore be recognised that any behavioural-based initiative needs to complement and align with other organisational programmes and values. Robust investigations will and should take into account all factors that may have led to an incident. To rely on one element too heavily is both unprofessional and dangerous.

A tendency by management to focus on the individual's actions rather than the overall unsafe condition (a bias described as Fundamental Attribution Error) can be detrimental to any organisation's drive for a safe and transparent culture, making it a 'Reactive' culture at best.

Deciding where to focus

Most companies will invest considerable resources of time and money into developing safety management systems and engineering out risk by implementing hardware and plant that achieve tasks with minimised risk to the user. Over time, this will achieve a reduction in accident frequency and, hopefully, severity. However, a plateau will be reached where a levelling off in performance will be apparent. At this juncture a robust behavioural safety approach will determine the company's continued success. It is where the human factors come into play – more so than ever before.

Challenging complacency, or "I've always done it this way"

Many people will continue to work unsafely because they have never been harmed doing so. Many workers complete the same task repetitively over many years and it has been widely proven that complacency is one of the key contributors to accidents at work (and elsewhere). A large percentage of work-based incidents involve low risk repetitive tasks. Each time a worker completes a task – especially one perceived as low risk – they are building confidence with the situation that, in turn, invites complacency. It is this feeling of security and diminished risk that proves so dangerous. When a new piece of plant or hardware is introduced, or a particular task presents clear and heightened risk, everyone focuses on the possible consequences and hazards involved. Risk assessments, method statements and toolbox talks heighten their appreciation of the risk. The novelty of the situation increases their alertness and ensures that the approach to the task will generally be suitably and consciously safe. But what about the simple task of walking across site, or completing a seemingly menial task; housekeeping-related duties; or slips, trips and falls? For familiar or apparently simple tasks, risk perception is reduced, confidence

increases and, unsurprisingly, this is where the majority of LTAs lost time accidents occur within the construction industry.

Similarly, when considering unsafe acts – especially consciously unsafe behaviours – people's perception of risk is altered each time they 'survive' the activity. Revisiting an unsafe behaviour, without consequence, can reinforce the belief that 'this way is fine'. This approach can be seen as rehearsing an accident. Heinrich's triangle (figure 2) shows that for every 330 unsafe acts there will be 29 minor injuries and 1 lost time incident. It is only a matter of time before that rehearsal becomes an accident. But many people are still guilty of thinking, "It will never happen to me." This false sense of security, or 'optimism bias', can lead to the most severe injuries.

There are many ways to combat this. In the article 'Ten Feet Tall and Falling', Genereaux (2015)[3] warns against simply telling people to stay safe, and impresses the importance of communication, listing the following as key factors in helping workers to fight complacency:

- Make it clear that low-risk activities can cause severe injuries. Give specific examples.

- Emphasise the risk of causing a 'stupid mistake' or injury through lack of focus on the task at hand.

- Explain how hard it is to maintain focus on frequent, simple activities. Make the link between this and the importance of following procedures and wearing personal protective equipmen (PPE).

- Hold regular safety conversations about 'low-risk' activities as well as 'the big stuff'. This is a powerful way of raising awareness, challenging complacency and proving that safety is a priority even in the face of a deadline.

Ownership

Common expressions on site are: "It's not my job", "They're not in my team", or even, "That's not my responsibility".

Construction sites tend to have numerous workers, trades, companies and groups working alongside each other at any one time. This raises many challenges in relation to worker safety. Silo mentality, tribalism, competition and distrust can all present themselves through negative worker behaviours. A blinkered approach to work can lead to people to focus only on their

figure 2
Heinrich's Triangle
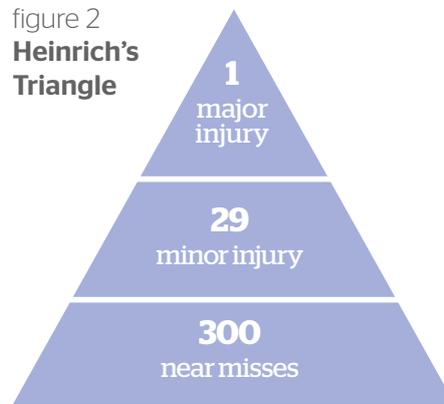
designated tasks, without considering the effect they have on others by their actions. Failing to see an entire operation as a 'one team' effort (a perception driven in the main by poor leadership and management) can result in a resistance to doing anything that falls outside of a strict task remit. This becomes particularly challenging when the individual feels any of the following is true:

- Management focus is on delivery to time and cost only, at the expense of safety.

- Workers are congratulated on quick, as opposed to safe, delivery of targets.

- Defensiveness is encouraged by a culture of competition.

- Transparency and challenge are not demonstrated or appreciated by others.

- On-site activities and successful task completion are not interdependent.

In order to encourage ownership of a safe, interdependent culture, individuals need to be invited to consider the pros and cons of this. An appreciation of why they should and how they can contribute positively to the culture in which they work, combined with a recognition of the consequences of anything that works against that aim, will help them take ownership of their own and others' behaviours. This can be achieved via:

- A consultative approach to working methods on site.

- Recognition for positive ownership of task and colleagues' safety.

- Leaders encouraging cross-functional honesty.

- Ongoing worker engagement.

- Giving the workforce an appreciation of the strategic approach of any project.

The aviation industry provides an excellent example of workforce engagement being crucial to safety. Take for example ground crew working around the exterior of a plane:, if a worker accidentally strikes the exterior of the plane it is critical that the incident be reported without fear of recrimination so that the aircraft can be inspected prior to take off. Organisations need a climate in which the workforce is prepared to report their errors and incidents.

The confidence to 'speak up' about unsafe acts and situations is key. Individuals who feel supported and encouraged by management to voice concerns at anything considered unsafe can better sustain a safe working culture.

The act of speaking up and challenging or informing colleagues of risk and potential dangers will be reliant on many factors. Firstly, an appreciation of the correct way to approach tasks and situations is required. Knowledge of how things should be done can be gained through instruction during briefings, training, toolbox talks, inductions and other methods. If conducted appropriately, these points of engagement will give everybody the 'how' and 'why' when it comes to doing things the right way.

Of course, knowing the right thing to do and choosing to do it don't always go hand in hand. A person's decision making process can be affected by a range of pressures, such as:

- Perceived or actual pressure from management to 'get it done quickly'.

- Forgetfulness.

- Peer pressure.

- Laziness.

- A desire to be seen as a rule breaker or maverick.

Aligning workforce behaviours and beliefs to organisational values and procedures should be the starting point for any behavioural safety initiative. Sustainability will only be achieved through consistent, authentic safety leadership from all levels of the workforce and management. Role modelling the right behaviours, positive recognition of desired behaviours and enforcing fair consequences for undesired behaviours will all help to embed a safer culture.

Critical success factors

The critical success factors in creating a safety culture are the confidence and capability of individuals, not only to look out for themselves but to also look out for others.

Whether this is challenging a co-worker's PPE, a colleague's task-specific risk assessment or a direct order from management, individuals who are willing to positively, (as opposed to negatively) challenge perceived unsafe acts are the drivers and agents of a robust and long-lasting safety culture.

What needs to be in place for this to happen? The following questions provide a starting point for discussion:

- Does the organisation really invite safety challenges?
- Is that demonstrated in the behaviours of those in leadership positions?
- Do leaders (supervisors, site managers, project managers, etc.) provide a supportive platform for individuals to express their concerns?
- Are those who voice concerns treated with respect, their points considered and fed back to?

The construction industry has changed greatly over the last few years, with increases in the sophistication of equipment and procedures. Yet how much change has been seen in the behaviours of those on site? Consider:

- Is the workforce asked for situational and behavioural feedback?

- Do leaders invite and respond to feedback in a transparent, constructive manner?
- Do leaders 'close the loop' from worker concerns – updating the workforce on any action taken as a result?
- Do people engage in peer-to-peer policing? If so, what are the outcomes from this?

Measuring success

There are numerous individual, team and organisational benefits to be enjoyed via a safer working culture – over and above a reduction in incidents. Whichever approach you choose, and whatever interventions and programmes are seen as suitable for your culture and needs, there are many positive reasons for measuring the success of your efforts. Increased worker engagement, continuity of leadership approach, motivation of workers will all be a by-product of an authentic and consultative approach to safety. Measuring these factors via employee engagement surveys will help demonstrate the positive change experienced within your organisation, whilst targeted safety culture surveys will help measure the workforce's safety profile. This, in turn, will help organisations target resources to areas of highest need.

A common mistake, however, is for safety professionals to rely on data, and positively displayed data, to serve as proof of success. Of course, positive comparison of base line data against a second data set to show distance travelled is a valuable tool, and should be looked upon very favourably.

The danger is, however, that achieving a lower risk profile, or even a reduction in safety key performance indicators, can invite us to relax our efforts.

When immediate safety issues seem to have been dealt with effectively, there can be a tendency for management focus, resources and time to be directed elsewhere. When managing a culture, especially change management regarding safety, it is dangerously too late – sometimes fatally - to re-focus attention only when the AFR starts to rise again. It can be very easy to become reactive after a period of proactive attention and investment in safety. The trick is to remain pro-active, safe in the knowledge that this approach to safety will have a direct and visible effect on all other organisational areas of interest too.

A final note on behavioural safety solutions

Behavioural safety programmes vary in their presentation, objectives, style and sophistication. Solutions may include approaches such as internally led peer-to-peer observation programmes, bespoke audio-visual material, targeted one-to-one safety coaching, large-scale launch events using high production values to reach a high percentage of the workforce, and many more.

It is likely that the best fit for one organisation may not be the right solution for another and the best engagement solutions will take account of the organisation's structure and workforce set-up.

Individual and group interactions will create the psychological and behavioural dynamic described in this paper. How the workforce are engaged and what the interventions consist of will generally dictate how people feel about what is being said and what the organisation expects..

Once an organisation recognises that a programme is required, there are several important factors to consider if the programme is to succeed and deliver a return on investment. Writing for the Health and Safety Executive, Anderson (2007)[4] advises that for any behavioural safety programme to make a positive difference to your culture, the following should be considered:

- Is it what you need right now?
- Can you learn from alternative techniques available?
- Have you made sure the programme reflects the reality of your organisation – style, language, presentation?
- Invite dialogue and listen to your employees.
- Focus on workforce and management behaviours.
- Use good, strong facilitators who understand safety.
- Are you confident of visible commitment and involvement from management?
- Managers should act as role models.

It is the power and willingness to influence that plays a key part in driving behavioural safety at work. Because of this, it's essential to create a culture that empowers and expects best practice from each and every person. This allows leaders to have faith that their people will make the right choices, rather than having to continuously monitor them to make sure that they do. This is the ultimate aim of a behaviourally-focused approach to safety – commitment over compliance.

Author biographies

Mark Paterson,
Senior Risk Manager

Mark has over 24 years experience working with key clients and specialises in liability risk management.

Mark has a wide range of liability experience from Casualty to Goods in Transit and Marine Liability. Mark holds the NEBOSH Certificate in Occupational Safety & Health and the Cert CII qualifications, is a Specialist Member of the Institute of Risk Management and a Technical Member of the Institute of Occupational Safety & Health. Mark also holds the Prince2 Practitioner qualification and the CITB Construction Safety Skills Qualification.

Jo Raishbrook

Jo Raishbrook is a Learning and Development Consultant for Keystone Training. He has been designing and delivering training and cultural change initiatives since 2003. As Keystone's Behavioural Safety specialist Jo consults with and manages clients from all sectors, utilising high impact techniques to achieve tangible behavioural change within entrenched cultures.

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