

# Beyond carrots and sticks

*Unlocking safety gains through understanding irrational behavior*



Many organizations that have undertaken safety improvement initiatives have found that while easy wins are typically accomplished early on, further progress often becomes increasingly difficult. Safety improvement typically depends on changing human behavior, which is driven by underlying emotion, habit and instinct, and not wholly rational or predictable. “Carrots and sticks” and other traditional methods therefore have limited impact on influencing behavior, and fail to truly engage employees and managers. Leading corporations and government policy-makers are demonstrating considerable success with alternative approaches, which overcome these barriers and achieve more significant and longer-term gains. Such approaches offer reinforcement to established levers for safety improvement.

## The safety performance plateau

A common challenge facing organizations across many sectors is to sustain continued safety improvement in line with the expectations of regulators, business partners and shareholders. Executive-led initiatives can yield initial improvements before reaching a performance plateau, which can be hard to escape. Diminishing improvements can trigger loss of motivation and failure to engage middle management, which are critical to long-term success. More fundamentally, behavioral change required for improvement is notoriously difficult, and cited as the most common obstacle to progress. Human behavior tends to be driven by a combination of rational thought and emotion, habit or instinct, resulting in potentially irrational actions that are contrary to good safety practice. Therefore, traditional methods, such as those focusing on “carrots and sticks”, frequently fail. This is because they do not connect with people at these fundamental levels, which means true engagement will be limited.

## The MINDSPACE model

In addition to safety, influencing human behavior is relevant to public policy, and the implications of behavioral theory for policy-making have been receiving increasing government attention in the UK. This has led to the publication of MINDSPACE<sup>1</sup>, a discussion document compiled by the UK Institute for Government, which reviews the latest developments in behavioral science and explores their potential impact on policy decisions. Much of the insight raised in this paper rings true to our experience working with client corporations as being highly relevant to safety management and culture.

Corporate policy-makers, including those responsible for safety policies, traditionally influence behavior by employing incentives and providing information about risks. A rational decision-maker can review accurate information and positive and negative incentives, and respond as the policy-maker intends. This is all fine in theory; however, real people are not perfectly rational, and their behavior is influenced by a range of factors. MINDSPACE represents nine of the most robust influencing factors on behavior:

<sup>1</sup> MINDSPACE: Influencing behaviour through public policy, IfG, March 2010

- **Messenger** – who is communicating information
- **Incentives** – how our responses are not always rational
- **Norms** – what others do
- **Defaults** – “pre-set” options
- **Salience** – focus on novelty or relevance
- **Priming** – subconscious prompts
- **Affect** – emotional associations
- **Commitments** – public promises and reciprocity
- **Ego** – feeling better about ourselves

## Messenger

How employees respond to a message is shaped by the identity of the messenger. This is clearly important when communicating safety policy or initiatives, as the wrong choice of messenger may render the message ineffective. People respond to different characteristics in a messenger, depending on context and desired impact:

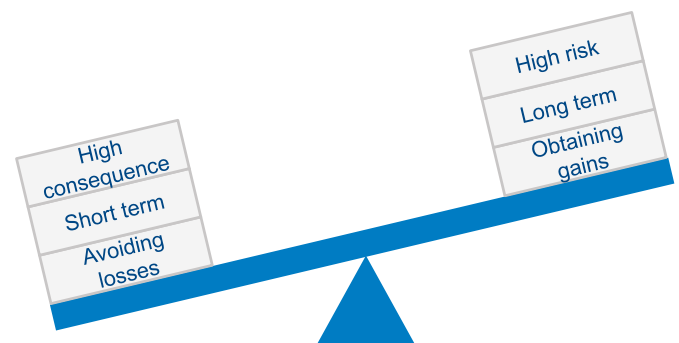
- **Authority** – we have observed better results when senior leaders provide clear messages, and do so with authenticity.
- **Expertise** – healthy-living initiatives tend to have more impact when the messenger has biomedical credentials.
- **Peer effects** – if emotional commitment is desired, a messenger to whom the target audience can relate can be effective, e.g., a close relative of a worker who was killed in an accident championing safety improvement.

## Incentives

Employees will often respond rationally to incentives, although impact can be limited, as *irrational* factors can dominate:

- **Loss aversion** – people are more responsive to potential loss than to equivalent gains. A company may wish to consider charging premiums for safety violations as an alternative to offering safety bonuses.
- **Probability** – people respond disproportionately to small probabilities, exaggerating the importance of an unlikely outcome, e.g., when participating in a lottery. This is also reflected in most people’s disproportionate aversion to high-consequence, low-probability events, which is widely recognized in research into risk.
- **Time** – people are generally more responsive to smaller, more immediate incentives than to larger, longer-term ones. This is frequently observed with healthy-living initiatives, such as healthy eating and quitting smoking, in which people’s actions are not consistent with the long-term benefits of a healthier lifestyle.

A practical example of loss aversion has been observed in the UK following the introduction of a statutory five-pence carrier-bag charge from most major retailers. Although many such retailers had been providing positive incentives for reusing and recycling carrier bags, typically through existing customer-reward schemes, providing a penalty in the form of an added cost for not reusing bags provoked a much stronger public reaction.



## Norms

People tend to behave in ways that are *perceived* as normal. The ‘Most of Us Wear Seatbelts Campaign’ in Montana, US in 2002–2003 identified that actual seatbelt use was significantly higher than the public perceived it to be, and increased seatbelt use by communicating this fact in public media. We observed a similar improvement in compliance with the wearing of high-visibility jackets at the depots for a major transport operator that we supported in delivering a safety improvement program.

## Defaults

If an employee is presented with multiple options, one of which is perceived as the default, they tend to be biased towards the default, even if it involves greater effort. The recent introduction of mandatory pension enrollment in the UK, with an “opt-out” option, is based on this principle, to encourage more saving.

## Salience

People respond to what their attention is drawn to, often by the novelty, accessibility or simplicity of the information presented, while unconsciously filtering out other stimuli. This is often seen in optical illusions and other “mind tricks” in which the brain’s tendency to focus on details that are made to stand out can cause the observer to miss seemingly obvious details. When communicating safety information it is crucial to make sure the important messages are not the ones that the observer misses while focusing on something more salient.

Salience also explains why unusual or exceptional occurrences make a stronger impression, often leading to disproportionate reactions to risks that have been directly experienced.

## Priming

Priming is when people are influenced by subconscious cues not logically related to their decision-making. Although this may be subliminal, people can also be primed by words, sights and smells. Priming is the least understood of the nine factors identified in the MINDSPACE model, but it does suggest that displaying safety messages and posters in the workplace can subconsciously, as well as consciously, prompt a response.

## Affect

Affect is the act of experiencing emotion, and it can irrationally influence decision-making. For example, a positive mood can lead to excessive optimism, and vice versa. This can influence decisions relating to risk perception, e.g., the environment when waiting at a level crossing can influence mood, and thereby risk perception and the care taken when crossing. Effective safety messages engage an employee's emotions.

## Commitments

Studies have shown that people who commit to specific, achievable goals, especially publicly, are more likely to succeed. This is related to incentives and loss aversion, as breaking a commitment can lead to reputational loss. Commitment devices, such as informal written agreements, can have a tangible effect, as can reciprocity ("I'll commit if you do").

## Ego

Most employees value their self-images and act to maintain them as both positive and consistent.

- Positive – people can be induced to act to create impressions of positive attributes, e.g., taking safety seriously.
- Consistency – people strive for internal consistency, and experience psychological stress when holding contradictory beliefs ("cognitive dissonance"). This can influence our perceptions, as we may deny facts outright to avoid contradiction. For example, "I take safety seriously" and "I can't be bothered to wear personal protective equipment (PPE)" are contradictory, and may lead a worker to alter their risk perception to downplay the importance of PPE. Consistency can be used for a positive effect, e.g., by asking people to comply with a small request before making a larger, related request. This forces someone to reconcile having already agreed to one request with their unwillingness to do something else similar. It is sometimes used in sales, as the "foot-in-the-door" technique.

## Strengthening established safety improvement levers

The traditional approach to regaining momentum in stalled improvement initiatives is to focus on engagement of staff. Behavioral science does not replace this, but instead provides further insight from which to strengthen approaches.

From our work with various clients, we have identified a number of keys to unlock further gains and escape the safety performance plateau. These steps can be enhanced by intelligent use of behavioral insight to remove barriers to desirable attitudes and actions.

## Use metrics that make continuous improvement realistic

Focusing on high-level indicators of safety performance, such as accident rates, can contribute to stagnating improvement as lack of visible gains reduces motivation to push for further success. This creates a state in which failure to meet targets becomes accepted as a new **norm**. Shifting emphasis to alternative indicators of safety that might more realistically be improved can boost morale and break the norm. **Salience** is also important here – when communicating a variety of metrics, we want to ensure that managers and frontline staff pick up on the ones on which we want them to focus.

## Reinvigorate branded safety programs

Launching a second phase of the program that kicked off improvements can create opportunities for further gains, often focused on a smaller set of more local challenges to foster engagement. Careful consideration of the **messenger** is required – should it be the same as in the original program, someone closer to the frontline, or an ambassador that has delivered success in a particular area? There may also be opportunities to exploit **defaults** when introducing new initiatives. For example, inviting all staff to take responsibility for a particular area of improvement, but presenting this as the "default" when choosing not to take up such a commitment, is seen as "opting out". Rolling out suitable media to reinforce the program, such as posters, presents opportunities to use **priming**, and the tone of the program should be established with careful consideration of its emotional **affect**.

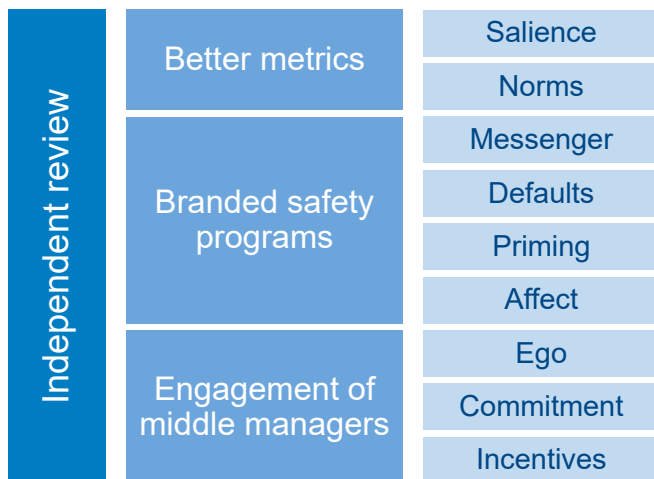
## Engagement of middle managers

Lack of engagement at middle management level is a common reason we have observed for stalling safety initiatives. However, it can be remedied with appropriate training and development activity, the holding to account of management personnel, and the effective sharing of the senior leadership's vision. Appeal to **ego** and use of **commitment** devices can bolster efforts to get middle management on board with a safety program.

A key consideration we have identified when seeking sustained leadership commitment to safety improvement is the extent to which **incentives** are employed, as people should not be seen to be paid more to do their jobs safely. Sustained results require that the two are not separated, and reframing incentives in terms of penalties for poor performance may appeal to people's greater sense of **loss aversion**.

## Independent review

An independent review of corporate governance, performance or a specific safety program can provide deep insight that is hard to identify from within. This is especially true of behavioral factors, which may defy logic and be harder to spot if we, as leaders, already have "skin in the game" with previous and current initiatives. Independent review is distinct from audit, taking a broader view that is less focused on rote compliance and more open to identifying cultural, behavioral and organizational factors. We are engaged by a number of organizations, often on an annual basis, to report our independent review to the board.



## Summing up

Many corporations face the challenge of the safety performance plateau. Behavioral change required for sustained improvement is notoriously difficult, and cited as the most common obstacle to progress. Behavior tends to be driven by a combination of rational thought and emotion, habit or instinct, resulting in potentially irrational actions that are contrary to good safety practice. Traditional methods, such as those focusing on "carrots and sticks", therefore frequently fail because they do not connect with people at these fundamental levels. This means true engagement will be limited.

MINDSPACE offers additional perspectives to understanding the drivers of human behavior. Hence, when carefully targeted, it provides options for strengthening established levers for safety improvement.

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Arthur D. Little has been at the forefront of innovation since 1886. We are an acknowledged thought leader in linking strategy, innovation and transformation in technology-intensive and converging industries. We navigate our clients through changing business ecosystems to uncover new growth opportunities. We enable our clients to build innovation capabilities and transform their organizations.

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