

# Nudge, nudge Think, think

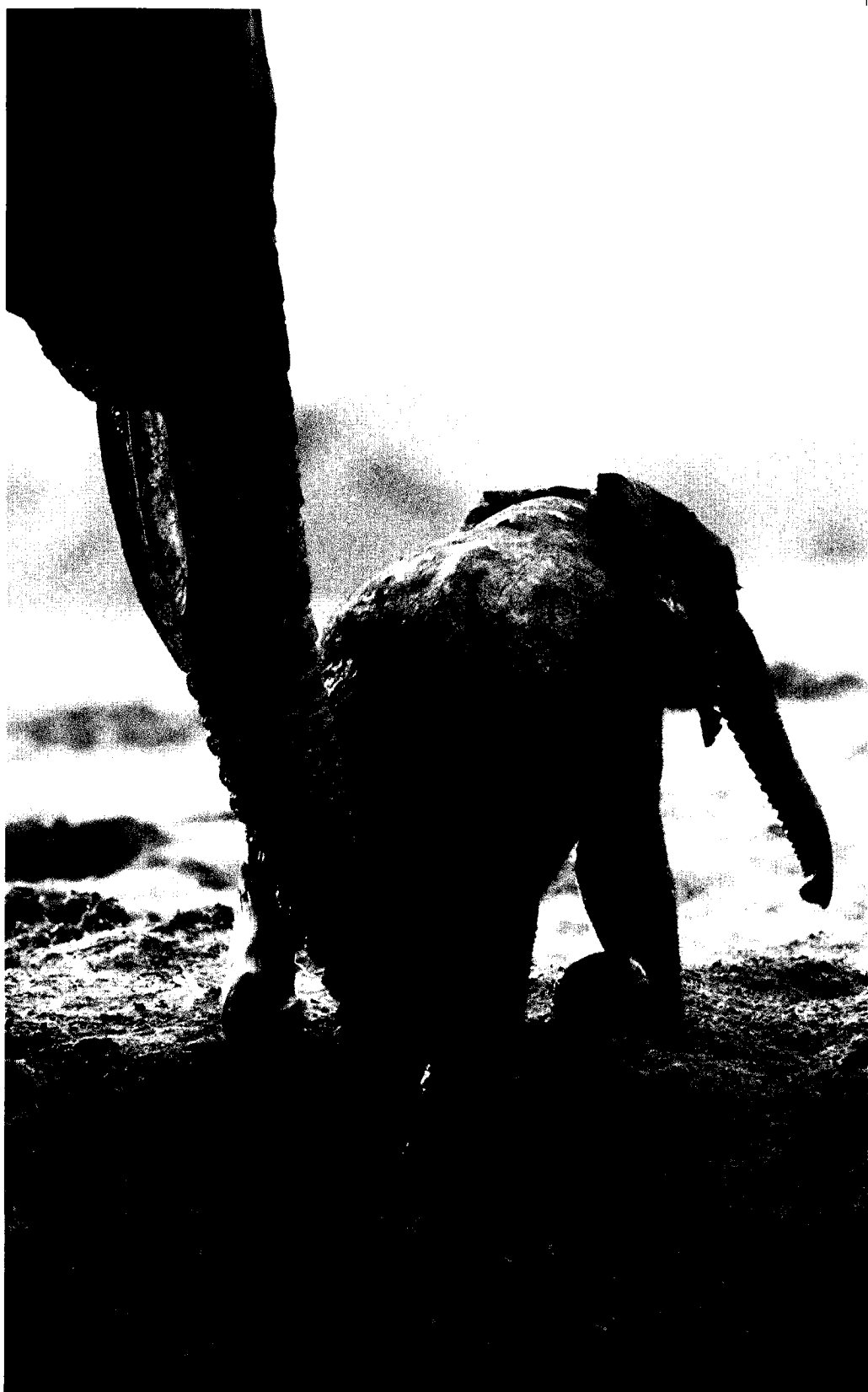
Nudge theory has recently been embraced by the UK Government but it is not new – indeed, most health and safety practitioners will have employed it at some point in their campaigns and initiatives to develop a positive safety culture without necessarily realising it. **Dr Jennifer Lunt** and **Malcolm Staves** appraise the potential merits of the theory for the profession.

**WHY IS MY SAFETY PERFORMANCE FLAT,** despite having behavioural-based safety programmes in place and management involvement? How can I get employees to make the right low/no-risk decision when walking over machinery? Why can't the management in my organisation show proactive, visible and consistent safety leadership?

Most health and safety professionals will, at some time, ask themselves these, or similar questions. There is never a simple answer to any of them but to address them, it is clear that the sub-conscious (often automatic reflexes) and decision-making processes need to be tapped into.

Lately, the prime minister has appeared to embrace 'nudge theory', with a behavioural insight team, or 'nudge unit', reported to have been set up at Number 10 to look into ways in which the "levers of state" can be employed to improve our behaviour.<sup>1</sup> But the concept of nudges can also be applied in the safety sphere, as it can be a way to impact individual sub-conscious decision-making through 'choice architecture'.<sup>2</sup>

So what are 'nudges'? According to Thaler and Sunstein,<sup>2</sup> a 'nudge' is any feature of a person's context that 'nudges' them to behave in a predictable way. Examples include:



- positioning healthy food choices within line of sight;
- providing free fruit at work;
- healthy lifestyle campaigns;
- colour-coding equipment that should not be touched; and
- colour-coding recycling bins to encourage good housekeeping and to protect the environment.

Rather than restricting choice, nudges are designed to increase the likelihood that the more 'responsible', or 'paternal' choice is made from a 'choice architecture'. Nudges can come in the form of written information, pictures, signs, colour rules, guidance, or even social, or peer pressure. They are typically low-cost and enable individuals to make decisions that they judge to be their own personal decision and to act without triggering conscious realisation.

This is obviously a win-win situation – how often have we heard the saying that “the secret to get something done is for the boss to think it was his idea!” Well, nudges are no different but they work primarily on the sub-conscious and reflex level.

Thaler and Sunstein used psychological theory and behavioural economics to produce different nudge categories. Each accounts for what behavioural economists refer to as 'bounded rationality',<sup>3</sup> and they are intended to explain why people do not always make rational decisions that preserve self-interest. Table 1 opposite provides a summary of each.

Nudge has a clear bearing on consumerism: the specific placing of products on shelves, or finding products in particular locations, together with the use of advertising, lighting, mirrors, etc. can 'attract' the consumer into purchasing specific goods. Here, budget permitting, individuals can shop as they choose but they may be 'nudged' into purchasing a particular product; this is choice architecture in action.

In health and safety, however, unrestricted choice does not apply. Employers have not just a legal but also a moral obligation to protect the health and safety of their employees at work. But if choice architecture could be designed so that people are more likely to choose a healthy-option food in the canteen or, when faced with choice, to take the low/no-risk option when working on machinery, it could potentially be a powerful tool in the health and safety professional's arsenal.

#### How can nudges work?

Human failure is widely accepted as falling into two main groups: human error driven by sub-conscious processes, and deliberate violations. Thaler and Sunstein's reference to 'automatic' and 'reflective' decision-making systems neatly maps on to this distinction. If

nudging operates primarily at a sub-conscious level, then logic suggests that it could help reduce human error.

Choice architecture and nudges are already used in health and safety by many professionals to raise situational awareness, make safe behaviour the default action, promote employee participation and secure management commitment.<sup>4</sup> Using visual communication to prompt safe practices and encourage situational awareness is also a long-standing tradition in health and safety – for example:

- colour-coding pipework to determine what is inside;
- segregating pedestrians from forklifts using marked coloured walkways and barriers;
- colour-coding parts of equipment that are dangerous;
- campaigns, including memorable posters, training, etc;
- managers walking the shop floor talking only about safety; and
- health and safety noticeboards, etc.

If nudging does improve situational awareness, this could counteract some of the arguments levelled at more traditional behaviour-based safety observation programmes. For example, focusing on frequent and observable behaviours can unwittingly direct attention away from 'one-off' causes of human error that could be a real low-probability event,<sup>5</sup> but when it does go wrong the consequences are very serious, or even catastrophic.

Choice architecture and nudges can help sub-conscious decision-making so that employees make the 'right' choice. This might be by using "Trojan Horse risk messaging",<sup>6</sup> or point-of-use pictures of safe practice to prime awareness at critical moments. Having a fresh pair of eyes as occasional observers to detect small changes in performance, which ordinarily might be obscured by frequent monitoring, could serve the same purpose.<sup>7</sup>

Using nudge in such ways could facilitate the involvement of new employees and people from outside particular work areas to participate in behaviour-based safety programmes, as well as in traditional risk assessments. This could also counter the old "well, it has always been done like this" or "it has always been like that" syndromes.

Other nudges widely used in health and safety draw on defaults, 'availability heuristics' (mental shortcuts), 'representative heuristics', social norms, and involvement and commitment (see Table 1). Defaults are routinely deployed in health and safety. The hierarchy of controls is a cornerstone of health and safety guidance, and should mean that the safe way to behave, in effect, becomes the default. Health and

safety campaigns, such as the HSE's 'Shattered Lives',<sup>8</sup> use evocative imagery to keep risk awareness prominent in memory.

An example of the use of 'representative heuristics' is the design of control panels, where care is taken to design dials with separate functions differently, so that their purpose is not confused. The value of worker involvement and team self-regulation methods in harnessing workforce commitment is widely espoused by health and safety pundits. As for social norms, the raft of research and evidence concerning safety culture and climate testifies to the influence of factors such as workmate attitudes and leadership style in nudging work practice.

Nudges need not only apply at operative level but also at the organisational and industry leadership levels. For example, health and safety forums can help shape industry-wide norms by spreading lessons learnt. Nudges can also be used to embed company norms in multinational organisations spanning different cultures. Rolling out initiatives by specifying aims and core components while allowing the detail on how they should be run to be locally determined strikes a balance between standardising operations, and tailoring local cultural variations. Finally, for industries with a transient workforce, nudges offer health and safety practitioners an opportunity to affect behaviour in a way that is not afforded by more protracted safety initiatives.

Nudging does what it says on the tin: it nudges people to make a particular decision. It is highly intuitive, and doesn't smack of employer coercion to the same extent as terms like behaviour-based safety, or behaviour change.

#### Limitations

The relevance of nudges to the second type of human failure, violations, is less clear-cut. Violations are conscious actions and are committed for a multitude of reasons. Nudges do not engage the kind of deliberation necessary for tackling the attitudes, values and motives that may drive violations. Nudges are also short-lived; their benefits only last for the duration for which an employee is exposed to them. Habituation may similarly shorten their lifespan. If not changed or modified, employees may become desensitised to their effect. A health and safety poster may grab attention when first placed on a wall but it soon becomes part of the furniture.

Nudges are also more applicable to one-off behaviours than more complex chains of actions. Nudging a construction worker to wear a hard hat is easier than nudging safe scaffolding assembly. Using shock tactics to

Overall purpose	Nudge types	Nudge shorthand	Health and safety example
Engineer/manage out unsafe options	Defaults	'Making the safe way the only way'	Using hierarchy of controls makes safe acts the default; mandatory health surveillance
Use information to educate/communicate risk/persuade	Anchoring heuristics/mental shortcuts	Assuming that 'if X follows or is near to Y, then X must be related to Y'	Avoid: time health and safety campaigns so that they are not confused with other events; Use: advent of a new director to introduce new h&Es changes
	Availability heuristics	Assuming that 'if information X is easy to remember, then X is likely to happen or is more important'	Posters with evocative messages; repeated training/messages; fear-evoking messages
	Discounting	Underestimating current risks that may harm in the future	Highlight risks for family and workmates; Health surveillance for long-latency disease
	Loss aversion	Disliking a loss more than the same amount of gain is liked (e.g. a £1000 fine is feared more than a £1000 reward is liked)	Penalising/fining unacceptable practices
	Positive/negative framing	Framing the same safety information in either positive or negative ways to create different impressions	'The behavioural safety programme failed to achieve zero tolerance targets', versus 'The behavioural safety programme achieved a 95-per-cent reduction in accidents'; '1 in 5 staff has been involved in an incident' versus '80 per cent of staff have been incident-free'
Improve usability/design correct use	Representativeness heuristics	Assuming that 'if situation X seems like situation Y, then situation X can be treated in the same way as Y' (e.g. Kegworth air crash)	Avoid: designing control panels so that controls with different designs look different; Use: high-fidelity training simulators
Raise situational awareness/vigilance	Cues/prompts	Using reminders to keep hazard awareness at the forefront of the brain	Health and safety signs; on-the-spot risk assessments; colour-coding unsafe parts of machinery
	Optimism/over-confidence	Assuming risk immunity: 'I've got away with it so far'	Emphasising what could happen to family of workmates
Incentivise and motivate	Social norms	Behaving safely because everyone else does	Using informal peer leaders in training to demonstrate good practice; 'walking the talk' by leadership
	Involvement	Being committed by being involved in a cause (i.e. health and safety)	Worker involvement/consultation; employee participation programmes
	Fairness	Do the right thing by an employee and they'll do the right thing in their job (i.e. work safely)	Providing safe working environments

etch risk in memory might also backfire if not backed up by clear and accessible advice and guidance on how harm might be avoided.<sup>9</sup>

Although nudges can be useful in raising situational awareness this is something of a paradox, given that nudges are intended to act on the sub-conscious. Cue and prompt-based nudges may work in that they bring awareness to a more conscious level, even if only momentarily. For example, painting the first few steps (at the top and bottom) of stairs may minimise the effect of distraction elsewhere and ensure that people are focused while walking down the stairs. Similarly, marking trip hazards or low-level beams with black and yellow strips may prevent people from tripping over, or bumping their head. The sub-conscious reflex part of the brain should ensure that a person misses such an obstacle if it is seen, assuming that the person is not distracted.

Maybe our parents knew about choice architecture and nudges when they told us to "look where you're going". This makes sense and we all know this but how many of us

actually take it into consideration when designing new equipment, or layouts? In essence, nudging could be seen as 'management by stealth'.

### How nudges help practitioners

The House of Lords Science and Technology Committee recently published its findings from a call for evidence on behaviour change.<sup>10</sup> In its main conclusion the Committee recognised that using non-regulatory approaches such as choice architecture and nudges in isolation could create policies that are not backed up by evidence. Also, the potential of nudges has not, as yet, been properly evaluated. The launch of any new product that sounds good generates an initial surge of interest but unless tangible benefits are soon realised, interest typically tails off.

But as health and safety professionals, can we ignore the potential of nudges? They are low-cost, practical, and easy to understand – and they have attracted political attention. If the Government is looking at choice architecture and nudges to promote a

healthier lifestyle, shouldn't we too explore the potential of this approach to improve health and safety in the workplace?

Further down the scale from the nudge is the 'shove', i.e. legal mandates for compliance.<sup>11</sup> As such, shove has been argued as creating the conditions in which nudge is more effective. Consequently, practitioners could use nudges to reinforce compliance with shove. For example, creating a team social norm whereby team members habitually look out for each other would help compliance with the HSWA 1974.

But even using nudges and regulations, or shove, in combination does not resolve the issue of violations. Approaches based on 'think' principles can apply here. 'Think' refers to the debate and deliberation of a particular topic to raise awareness and change attitudes. In such cases, more mainstream behaviour-change techniques come into play. These might include raising awareness, using risk communication to encourage conscious reappraisal of risk, goal-setting, and planning in detail how to adopt safer practices.

Tackling root causes also means attention must be paid to underpinning health and safety management systems, to norms that define the health and safety culture, and to particular leadership styles. In other words, while nudge cannot be a panacea, it seems that lasting improvements in health and safety are more likely if an integrated approach is taken using a combination of nudge, think and shove.

### Conclusion

Nudging is nothing new; it the packaging of a collection of related theories as nudge, and the positioning of nudge as a potential alternative or support to regulation that sets a precedent. Tapping into automatic

decision-making processes through choice architecture and nudges was previously seen as the role of psychologists and behavioural scientists, but health and safety practitioners can usefully employ it, too.

Of course, they cannot depend on it alone to drive a positive safety culture – it is simply an addition to their already very heavy and large toolbox. But the concept could be just what is needed to drive health and safety performance to the next level. Practitioners are already using choice architecture and nudges within existing programmes, or in the development of new ones – the next step is conscious integration of choice architecture and nudges in the design of health and safety initiatives.

The potential benefits are obvious, but as we are dealing with the basics of the ways in which people think and make decisions, the road may be long – but isn't it always?! ■

### References

The full list of references for this article can be found with the online version – [www.shponline.co.uk](http://www.shponline.co.uk)

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There are ten questions in all, and the answers can be found at the end of the online version of this article at [www.shponline.co.uk/features-content/full/cpd-article-nudge-nudge-think-think](http://www.shponline.co.uk/features-content/full/cpd-article-nudge-nudge-think-think)

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### QUESTIONS

- 1 Which of the following would not be an acceptable 'nudge'?
  - a. Signs
  - b. Guidance
  - c. Elbowing
  - d. Colour rules
- 2 Human failure falls into two main groups:\*
  - a. Human error driven by sub-conscious processes
  - b. Sleeping on the job
  - c. Deliberate violations
  - d. Taking too many breaks
- 3 Visual communication can prompt safe practices. Which of the following is not a suitable form of communication?
  - a. Colour-coding parts of equipment that are dangerous
  - b. Segregating forklifts from pedestrians by using marked coloured walkways
  - c. Issuing coloured overalls to those who undertake dangerous tasks
  - d. Noticeboards of safety information
- 4 Defaults are routinely employed in health and safety. Identify which of the following is not a default:
  - a. Availability heuristics (mental shortcuts)
  - b. Social norms
  - c. Lack of commitment
  - d. Representative heuristics
- 5 'Nudges' apply:\*
  - a. At operational level
  - b. Within multinational organisations
  - c. At leadership level in a company
  - d. With a company's customers
- 6 Violations are:
  - a. Unconscious actions
  - b. Conscious actions
  - c. A result of poor attitudes
  - d. Cured by 'nudges' on a long-term basis
- 7 Examples of choice architecture are:\*
  - a. Gothic windows
  - b. Painting the first few steps of a staircase
  - c. Marking low beams with yellow/black tape
  - d. Making all pathways straight
- 8 Nudging is a new concept thought up by:
  - a. Psychologists
  - b. Behavioural scientists
  - c. It's not new
  - d. Safety practitioners
- 9 Indicate which of the following is not normally used in 'nudge' theory:
  - a. Discounting
  - b. Cues/prompts
  - c. Statistics
  - d. Loss aversion
- 10 'Nudges' are most applicable to:
  - a. Long-term solutions
  - b. One-off behaviours
  - c. Complex chains of action
  - d. Attention-grabbing, requiring no action

\* There could be more than one correct answer to this question