How a Behavioural Approach Helps Get to the Route of the Problem

ARTICLE No 3

In issue 2 we introduced the main principles that underpin a behavioural approach to health and safety. We saw that the approach involves:

1 Identifying key behaviours

2 measuring the frequency of these behaviours in the workplace

3 setting objectives for improvement

4 feeding back the result of the measure to front line employees in a process of continual improvement.

In this briefing we will show how a behavioural approach can also help to identify and remove the 'root cases' of unsafe behaviour.

It's now widely accepted that 80-95% of all accidents are triggered by the unsafe behaviour of employees (Krause 90). However, responsible organisations now view these unsafe acts as a consequence or symptom of a problem, rather than the problem itself. It's widely recognised that people make mistakes or even violate safety procedures for reasons beyond their control.

Tackling the cause and not the problem

Reason (90 & 97) has highlighted that mistakes made at the sharp end can be thought of as 'active errors' which trigger an accident. However, these 'active errors' are the last in a long line of errors made by decision makers. Errors made by those removed from the work activity can be thought of as creating 'latent failure conditions' that promote the chances of unsafe behaviour. The model shown in figure 1 can be thought of as a sequence of dominoes where one error has a knock on effect to the next. Blaming the person who triggers the accident (eg the last domino in the chain) is pointless and does nothing to get to the root of the problem. And yet this is exactly what many managers do. We all have a natural tendency to blame individuals for their behaviour as opposed to the situation. For example, if you are driving and somebody cuts in front of you, it's natural to accuse them of being and idiot (or worse!). If we do the same thing it's often for legitimate reasons' which the driver honking at us doesn't understand. This process is what psychologists call 'attribution error' and it's why so many organisations have a blame culture, eg we blame the individual, not the circumstances they work within.

Active errors versus latent conditions

'Active errors' tend to be unique to a specific situation and are therefore hard to predict or manage. In contrast, 'latent conditions' can be common to many areas within an organisation and are constantly present. Therefore, provided you know what to look for, latent conditions are far easier to identify and manage.

Latent conditions are many and varied but common examples include:

• the provision of inappropriate or poorly designed equipment

• setting of incompatible goals, eg do it very fast and safely

• deficiencies in management systems that blur individual responsibilities

- inadequate communication system

- inadequate or poorly designed training.

The 80/20 Rule

The large majority of accidents in any organisation often share a small number of root causes. It's called the Pareto Law or 80/20 rule. The Pareto Law has been proven in a large number of applications. Within the health and safety arena researchers have also noted its affect. Mosteller 89 found that a small number of functions within a software package were responsible for the large majority of errors. Stewart 91 developed a Pareto based model to predict the occurrence of human errors made by plant operators within a nuclear power station. Reason 97 observed 'whereas particular active errors tend to be unique to a special event, the same latent conditions - if undiscovered and uncorrected - can contribute to a number of different accidents.' In other words if you can remove a few latent conditions you can prevent many incidences of unsafe behaviour. This makes tackling root causes a highly efficient risk management technique.

How do you tackle route causes?

When someone takes a risk or behaves unsafely they will often have a good reason for doing so. A key aspect of a behavioural approach to safety is to ask with an open mind why someone is behaving in the way that they are. This type of simple investigation will often uncover a 'latent failure condition' that's responsible for any number of other unsafe acts. Critically this type of investigation must be done in a blame free environment. People must be able to contribute without fear of recrimination.

Following the domino chain

Asking an individual why they are behaving unsafely is not always sufficient to get to the root of the problem. However, by asking 'why?' repeatedly it's often possible to follow a chain of causes. For example a chain beginning with a front line operator who is not wearing protective gloves might go something like:

IN THE WORKPLACE

Step 1
 Q. why aren't you wearing any gloves?
 A. Because they don't fit.

Step 2
 Q. Why don't you get a pair you size from the stores?
 A. Because they only have one size.

In the Stores

Step 3
 Q. Why do we only have one size of glove?
 A. Because no one has told me that it's a problem.

IN A TEAM MEETING

Step 4
 Q. Why hasn't anyone reported a problem with glove sizes?
 A. Because our suggestions are never taken up or acted upon.

In this example a failure by management to listen and communicate effectively lay at the root of this and potentially many other acts of unsafe behaviour. The length and complexity of a chain of causes like this will vary from one situation to another. Andy Pearce of Shell Expro (97) has pointed out that an offshore fatality is typically the result of a chain of at least seven distinct failures. As a general guide asking 'why?' no more than five times usually leads back to fundamental issues that are worthy of further investigation. It should also be remembered that a single 'active error' may be a result of more than one 'latent failure condition'. You can think of this as branches to the domino chain.

In some respects the length and complexity of a chain of causes leading to unsafe acts is less important than simply getting team leaders to question what they are seeing and to avoid blaming the individual. This approach helps to develop an adult to adult relationship, avoids a blame culture and will help all concerned to identify underlying causes.

What are the training needs?

In order to make the type of investigation outlined in this briefing successful, all concerned (team leaders and front line staff) must understand the principles that underpin a behavioural approach (see 'Behavioural Safety - How to Ensure Success' Issue 2, page 10). Those charged with the responsibility of investigating root causes must be shown how to use the questioning 'why?' technique along with appropriate interpersonal communication skills.

Central to any behavioural approach is the active involvement of front line employees. They are best placed to identify instances of unsafe behaviour. In many cases they will also be able to pinpoint the immediate workplace conditions that are causing the problem(s) they see. Gaining this front line involvement relies, at least in part, on developing observation skills and confidence/willingness to raise problems as they are identified. The key, as always, is effective training.

REFERENCES

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Where next?

Human Focus have recently launched a new video training package called 'There's Always a Reason - Tackling the Root Causes of Unsafe Behaviour'. This package explores the themes introduced in this briefing. It has two programmes - one for team leaders and one for front line employees. 'There's Always a Reason' is available in three versions - office, industry and healthcare. If you would like to evaluate how this training resource can assist your organisation to identify and remove 'latent failure conditions' contact Human Focus for a FREE no-obligation preview.