The Elusive Culture of Safety

Jake Molloy, General Secretary, OILC
The trade union for UK offshore oil and gas workers

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Recently I had cause to read a report relating to an OILC member who had been injured in an accident offshore. The report cited a range of causal factors including "a bad safety culture".

The reader is left to infer what was "bad" about it, and this caused me difficulty. I had presumed that a safety culture is only ever good: either there is one, or there is not. Perhaps the report writer meant that the culture prevailing on this particular installation was one in which factors other than safety got preference — uninterrupted production (regardless of risk) or cost-cutting (leading to minimal maintenance), to give a couple of commonplace examples.

Eighteen years on from Lord Cullen's seminal report with its recommendation that all duty holders should develop a safety culture everyone now, of course, claims to have one. But the evidence from the UKCS indicates that some of the claims must be deluded or, more likely, dishonest. What other conclusion can be reached on reading the KP3 Report?

According to Cullen, repeated by Baker in his report, the establishment of an effective safety culture is an essential prerequisite for the effective management of risks that arise in the course of the work. Neither man offered a precise definition of safety culture but clearly both envisaged a framework within which those who actually do the work are empowered and educated to participate fully in the risk control process. Building a safety culture commences with effective leadership from the top but ultimately must encompass all persons who come within the orbit of the organisation and, moreover, must engage each person as a full player in his or her own right.

By organisation is meant a single entity consisting of many parts and includes, for our purposes, an offshore installation. The contention is that on too many installations on the UKCS safety culture is stillborn. The major impediment to progress is a flawed understanding of what culture (in this context) actually is.

Safety culture does flourish on many UKCS installations otherwise the points made here would be little more than a counsel of despair. Nowhere are things perfect, of course, but I can name installations on which safe operation is the only operational mode tolerated. However, on certain installations safety is so evidently subordinate to uninterrupted production that claims of safety culture are risible.

The term safety culture has become so elastic, so ill defined, that regardless of how apparently inadequate the control of risk or how frequently violations of procedures or legislative requirements occur, the claims go unchallenged. Perhaps the concept of 'safety culture' needs to be rescued, rehabilitated and re-established on a credible basis.

It has been argued that there can be no such thing as 'safety culture', specifically: only culture. Culture develops from, and is always defined by, the particular community of interest or activity that brings the people together. Professor James Reason said that regardless of complexity, of which there is always plenty, culture, in the organisational sense, can be simply stated as: 'the way we do things round here'.

Other experts tell us that 'culture' is one of the two or three most complex words in the language. The publication *Culture: A Critical Review of Concepts and Definitions* lists 164 definitions of which two caught my eye. Country loons with us today will recognise the coulter, or plough, Old Scots from the Latin *coltura*, meaning to cultivate. A civilisation's entire system of sustaining itself — tools,

techniques, knowledge, language, laws, and folklore — taken as an inclusive whole make up a society's culture. For society, read organisation.

And then there is sub-culture, as the mainstream is fond of calling it. Sub-cultures can be differentiated variously by religion, politics, ethnic origin, occupational grouping, whatever. The sub-culture that seeks to assert itself is invariably perceived by the dominant culture as off-message or even subversive, inviting close monitoring, or even, if seriously deviant, elimination. I've heard OILC described as a sub-culture.

Then there is 'corporate culture'. The senior manager will seek to impose corporate values and standards of behaviour that specifically serve the objectives of the organisation. Not always successfully, it has to be said, as examples I shall give show. In establishing a system of formal control senior managers might choose to apply one the range of templates such as HSG 65, for example, which, if properly applied will take the organisation in the direction of establishing an effective safety management system.

Once managers have established such a system of formal control or, at least, articulated the goal of achieving such a system, there commences the social interaction within the community of people who are hired to bring about the intended organisational outcomes. This process in time grows and sustains the internal organisational culture.

This culture is nurtured by operational success and will ultimately exert as much if not more influence on the day-to-day functioning of the organisation as will the formal management system. Continuous reinforcement of the culture happens when the methods, behaviours and shared assumptions prove functional and capable of taking the organisation forward toward its objectives. And so it is that culture becomes embedded as 'the way we do things round here'.

A strong or deeply embedded organisational culture is a great asset but it may also represent a potential weakness. Strength comes from group cohesion; potential weakness from 'groupthink' that can impede learning.

In his paper *Three Cultures of Management: The Key to Organisational Learning* Edgar H Schein asks the question 'why do organisations fail to learn?' He identifies three core cultures within organisations and proposes that the learning failures may be caused not by "resistance to change", "human nature" or poor "leadership" — the usual suspects — but by the lack of alignment between three internal cultures that do not understand each other too well and which often work at cross-purposes. When organisations attempt to redesign or reinvent themselves (or bolt on a safety culture?) the internal cultures collide and failure occurs.

Schein's three cultures are the executive corps, the engineering culture, and the operatives' culture. The operatives', or shop floor culture, he finds the most difficult to describe. This culture can be as complex as the process it serves. It is often characterised by high levels of interdependence within the group such as in a nuclear plant or chemical complex, for example. This group often becomes the custodian of proprietary knowledge acquired intuitively and by experience on the job.

The engineering culture, in Schein's analysis, represents the basic design elements of the technology underlying the product of the organisation. The engineering culture recognises human factors and designs for it, but the preference is to design humans out of systems rather than into them.

The executive culture's worldview is built around the necessity to maintain the organisation's financial health. As managers rise in the hierarchy and their responsibilities grow they become impersonal and detached from process and people. Schein observes that the executive culture and the engineering culture share a predilection to see people as impersonal resources to be engineered out or downsized away as opportunities arise. On the other hand, operatives' culture imbues in its members a good conceit of themselves as the organisation's key productive asset.

Much of what Schein says chimes perfectly with the experience of contracting employees on the UKCS. To his three cultures may be added others when taking into account the multi-occupational multi-employer environment routinely found offshore. The 90-95% of the workforce employed by contractors have their own distinct cultures arising from occupational function, for example, and it is our experience of particular operators' management systems that these are geared to demote or at least minimise the influence of these 'fringe' cultures.

An artificial monoculture is enforced through the simple expedient of ignoring or deflecting attempts at input from contractors' employees particularly where to allow such inputs would run contrary to corporate production imperatives.

Let me give a concrete example out of a dozen I could give. Two young men were killed on Brent Bravo September 2003, asphyxiated whilst working in the utilities shaft 70 metres below deck level. They had been sent down to fix a leaking hydrocarbon line to which a neoprene patch had been affixed by bulldog grips. A leak of oily water soon transformed into a torrent of gas and condensate on the failure upstream of non-return and emergency shutdown valves.

Radio communication failed due to shelved maintenance work (cost-cutting) and this delayed the attempt to evacuate. The volume of gas released was sufficient had it ignited to cause structural failure of the concrete leg. The topsides in which 156 person were present would likely have toppled to the seabed. Potential sources of ignition were present, supposedly EX-rated, but damaged, battery connections and loose light fittings.

Safety critical valves and actuators known to be malfunctioning for years were not repaired or replaced so not to interrupt production. Unknown to the safety representatives at the time an internal audit had warned senior management that test reports on the valves had been falsified. Safety Critical Elements maintenance was 14% compliant against an internally reported figure of 96%. The effect of this fraud was to dupe the HSE into believing that all was well.

Contractors' employees were particularly worried about the TFA policy implemented on all four Brent Field installations. 'Touch Fuck All' was intended to ensure that no maintenance interventions were carried out that had the potential to interrupt production. TFA applied to safety critical equipment as well as the production plant. A very lucrative gas nominations contract was subject to punitive penalties for failure to deliver. Downtime was to be avoided and the Brent system was required to maintain very high and unprecedented levels of gross availability at one point supplying around 33% of total UK gas demand.

TFA evolved from a series of *ad hoc* initiatives on the part of offshore production staff and was eventually placed on a formal commercial footing by the 'business improvement plan' (OBIP) involving a consortium of contractors based here in Aberdeen. On offer were opportunities to generate an additional £70 millions revenue over seven years partly by cutting back on maintenance expenditures. The outcomes were predicted and included hundreds of hydrocarbon pipes patched with bits of rubber and clips and dozens of safety critical valves and actuators devoid of reliability.

Contractors' employees made a series of complaints and pleas for intervention to the operator, to their contracting employers and to the HSE even up to the eve of the two-death tragedy in 2003. Incredulously, one of these companies had lost 29 employees killed in the Piper Alpha disaster, yet declined to respond to exhortations from its employees on Brent Bravo that catastrophe was imminent.

However, the HSE investigation did confirm the complaints were justified and enforcement action was signalled to the operator in five areas: policy, organisation, consultation, planning, review and audit (remember those?). Senior managers were requested to notify the HSE within 28 days how they intended to implement corrective actions. Fourteen days into this period of grace our two colleagues were killed.

An expensive FAI (Fatal Accident Inquiry) followed which did not really get to the bottom of things but interestingly did discover something that the operator's own internal investigation at the time failed to comment upon. The two men had been ordered into the shaft clearly with the intention of doing something, but without a permit. Evidence given at the inquiry was that entry was covered by a so-called 'operations umbrella' permit. Cross-examination uncovered the fact that no such entity exists anywhere in the operator's operations manuals. It had been a locally contrived *ad hoc* policy, much akin to TFA, to avoid interruptions to production.

Students of organisational culture will find this fascinating. Behind the façade of formal management systems developed to the Nth degree this organisation's culture had the capacity to mutate on an *ad hoc* basis to accommodate pressing production imperatives. The apparently all-embracing bureaucracy of control was usurped and replaced by an adhocracy of cobbled up procedures and

innovative working practices developed on the fly.

This illustrates another important point made by Schein. A culture manifests itself at three distinct levels: the level of deep-seated but un-stated assumptions that form the essence of the culture; secondly, the level of espoused or stated values that often reflect what a group ideally wishes to be or how it wants to present itself in public (the stuff PR and reputational management); and, thirdly, the day-to-day behaviour of individuals which is often a complex compromise between the espoused values and the immediate requirements of getting the job done.

I happen to believe that without exception all senior managers in the UK offshore oil and gas industry are totally sincere in their intention to make the UKCS the world's safest offshore oil province by 2010. Regrettably, while many operators will match or exceed the safety performance required, the UK offshore industry as a whole will likely not.

A factor contributing to the shortfall in performance must be attributable to the limited contribution made by contractors' employees who make up in excess of 90% of the offshore population. The evidence and experience we in OILC have amassed from the unremitting stream of personal grievances, tribunal hearings, accident compensation claims and participation in major FAIs following offshore death is that contractors' employees as a general rule are highly restrained in the contribution they are prepared to make. They know either instinctively or because they have been told directly that their individual interests are subsumed within the commercial relationships that exist between their contracting employers and installation operators. In other words, it is not a good idea to 'noise up' the client.

For too many offshore workers the end result is powerlessness manifest as silence either discreetly self-imposed or enforced, in some instances, by the bludgeon of NRB (not required back) the system of man-management in which due process is put to one side to facilitate arbitrary elimination of troublesome individuals and to silence those who remain.

Numerous studies other than Schein's show that constructive dissent serves as an important monitoring force within organisations, a warning signal of danger ahead or of organisational decline. Industry leaders on the UKCS need to realise that internal dissent is not itself a crisis: it is priceless insurance against disaster. Until the ugly headlines appear and the consequences are unavoidable, senior managers too often forget that they will suffer more for ignoring principled dissenters than by giving them a hearing.

Superficially manipulating a few priorities and satisfying oneself that everyone sings from the same hymn sheet does not constitute a 'safety culture'. Beware of false consensus. In the words of Glenn Shurtz president of Occidental Petroleum (Caledonia) under cross-examination at the Cullen Inquiry: "I had no reason to doubt that all was well. No one ever told me otherwise".

Beware of false consensus. Power to the workers.

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OILC (Offshore Industry Liaison Committee)
A Registered Trade Union
49 Carmelite Street
Aberdeen
Scotland UK
01224 210118
gensec@oilc.org