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Editors

Safety Cultures, Safety Models

Taking Stock and Moving Forward

- * Just because an academic quotes another academic doesn't make an assertion or an attribution a fact or valid.
- * Peer-reviewed papers + journals operate on the assumption that like-for-like is the best basis for academic validity.
- * The idea that repeatability validates is an assumption of science + discounts the value of experience.

This book reflects the rich debates that occurred not only at the conceptual level but also regarding the operational and political issues faced by high-risk industry when it comes to safety culture. After an introductory chapter detailing the expectations of FonCSI's industrial partners, the book presents the in-depth reflections conducted on the questions raised above and more. By displacing the usual reading grids, challenging the term safety culture and questioning the purpose and relevance of models, this book helps to dispel the 'safety cloud' (as it was called by the industrial members of the group) of concepts and approaches and proposes ways forward for at-risk industries. We encourage you to read it, share it and discuss it!

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* Always question:

- source
- purpose
- bias
- discipline
- what is the problem?
- Ethic
- politic
- philosophy

* metaphor - cloud.

* assumed
 value
 not
 true

* Assumption
 that culture is
 confusing
 discounts the value
 of 'wicked problems'.
 confusion + mess is
 an attribute of a
 wicked problem.
 science can't
 cope with paradox.

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* Always question sources!
* Audit language, what linguistics are Not used?

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no comments to
beak in JCHD

Not

- Nothing is Transdisciplinary
- All authors bound by safety

Chapter 4 The Use and Abuse of "Culture"

never mentioned or discussed in text.



Andrew Hopkins

Abstract Culture is a misunderstood and misused idea. In this chapter I advance seven clarifying theses. (1) Culture is a characteristic of a group, not an individual, and talk of culture must always specify the relevant group. (2) Organisations have it within their power to ensure that organisational culture over-rides national cultures. (3) The most useful definition of the culture of a collectivity is its set of collective practices—"the way we do things around here". (4) In the organisational context, it is usually better to use culture as a description of group behaviour, rather than as an explanation for individual behaviour. (5) Organisational cultures depend on the structures that organisations put in place to achieve desired outcomes. These structures reflect the priorities of top leaders. The priorities of leaders in turn may depend on factors outside the organisation, such as regulatory pressure and public opinion. (6) The distinction between emergent and managerialist views of culture is misleading. (7) The term *safety culture* is so confusing it should be abandoned.

Keywords Culture · Safety culture · Meaning of culture · Sources of culture

The terms culture and safety culture are fashionable in safety circles and in business. Culture is a basic concept with roots in the disciplines of anthropology and sociology, but safety culture is a Johnny-come-lately, having arrived on the scene only in the latter part of the 20th century.

Both ideas are widely misunderstood and misused. Many writers have made this point before me. To mention just one, Hale (2000) wrote an editorial for an issue of *Safety Science* in the year 2000, entitled "Culture's Confusions". There is no agreement about the use of these terms, he said, and "confusion reigns". More than a decade and a half later, nothing has changed.

An earlier version of this chapter appeared in my book: *Quiet Outrage—The Way of Sociologist*. CCH, Sydney 2016.

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these two use the lack of complete credibility

is not abuse.

— essential interpretation of wickedly + paradox.

OHG!

Religion? Industries?

— there are not structures

— meaning?

no religion - implications - culture studies - validity by global factors + numbers

— metaphor

— Assumption about confusion + order - not wickedly or paradox.

* so, ethical assumption - confusion is bad (hidden) - confused or messy?

closed

Trad safety Behaviour

assumed no!

TOP down

theories and assertions.

A. Hopkins
unprofessional
+ unacademic
dogma
relating
language

essential

This chapter will not be a comprehensive discussion of these concepts. Instead I have chosen to advance a number of theses about culture. This enables me to cover several contentious issues and take a position on each. The discussion of each of is necessarily brief and perhaps overly dogmatic, but my aim is to provide accessible summary statements. Most of the theses concern culture; only the last will deal specifically with safety culture.

why? - no they don't

Given the nature of this book my focus will be on organisational culture, rather than culture as a more general sociological/anthropological idea, but it cannot be exclusively so, because organisational culture sits with that more general context.

did you just say these are culture?
- so it's not culture perse but org culture?

1 Is Culture a Characteristic of Individuals or Groups?

Accept assumption that's not held in the language mindsets can be group collective

Those seeking culture change within organisations often see the task as changing the values and attitudes of the individuals in that organisation, "winning their hearts and minds", creating an appropriate "mindset". There is an implicit assumption here that culture is a characteristic of individuals. However, social scientists insist that culture is a characteristic of groups, not individuals. Organisations may have multiple cultures and cultures may overlap and fragment into subcultures, but always the discussion refers to the characteristics of groups and subgroups, not individuals. Thus, one should never talk about culture without specifying the group, for example national culture, organisational culture, culture of the work group. This simple rule resolves many quandaries. The culture of the work group is not necessarily the culture of the whole organisation, and so on.

- new collective from Soc + Anth

The claim that culture is the characteristic of a group, not an individual, has important implications. Consider the following statements made by the safety advisor of one large company.

Safety performance has been achieved through an unwavering commitment and dedication from all levels in the organisation to create a safety culture which is genuinely accepted by employees and contractors as one of their primary core personal values. (Hopkins, 2000: 74)

make self

The aim, he went on, is to "create a mindset that no level of injury (not even first aid) is acceptable".

defined by Hopkins as 777

The company drew an interesting implication from this. Since safety is about a mindset, the individual must cultivate it 24 h a day. It cannot be exclusively about occupational safety but must include safety in the home. Hence the company's 24-h safety program. This is how the safety advisor expressed it:

What sense of mind? Does he mean brain? person dispos. etc?

Real commitment to safety can't be 'turned on' at the entrance gate at the start of the day and left behind at the gate on the way home. Safety and well-being of fellow employees is extended beyond the workplace in this company. A true commitment to safe behaviour is developed by promoting safety as a full time (i.e. 24 hour) effort both on and off the job.

safety as ideology no combat by Hopkins

All this depends on the idea that culture is a matter of individual attitudes. However, if one takes the view that culture is group property, it may well be the

introduces possibility of culture as a thing, object, economic like Coops 'product'

case that attitudes to safety change as one passes through the factory gate. The company attitude to safety is one thing, but the attitude of a recreational peer group may be quite different, giving rise to much greater risk-taking outside the gate than inside. Think for example of attitudes to risk-taking in some motor cycle groups or hang gliding clubs. In both these contexts the aim is often to operate near the limit, without going over the edge. Sometimes a limit is transgressed, possibly with fatal results. Clearly, the same individual may have quite different attitudes to risk depending on the currently relevant group (Mearns and Yule, 2009). What the company referred to above is seeking to do, without realising it, is change the culture of groups outside the workplace. This it is most unlikely to be able to do.

Thesis 1 Culture is a characteristic of a group, not an individual, and talk of culture must always specify the relevant group.

ok so organizations can influence sub cultures but can national cultures?

2 National Versus Organisational Cultures

incomes, religion, stereotypes

Companies sometimes complain that national cultures ~~over-ride~~ the corporate culture they are trying to create. The re-insurance company, Swiss Re, did a famous study a few years ago in which it identified "regional" differences in the oil, gas and petrochemical industries (Zirngast, 2006). One specific dimension was attitude towards safety, depicted in Table 1.

There are problems with this study, not the least being the rather ~~grab-bag~~ *grab-bag* nature of the regions. Nevertheless, this study is sometimes taken as evidence that national cultures tend to over-ride corporate cultures. Indeed, that is the conclusion of the study. *so, discredited study, never accept it!*

Our observation is that the influence of the country on the operational hazard is stronger than the influence from corporate headquarters. For example, a European [owned] refinery in the USA is currently more like a US refinery than a European refinery. (Zirngast, 2006: 8)

However the study author goes on to say:

Table 1 Swiss-Re study: attitudes to safety by region

Region	USA, Canada, UK, Australia	Europe, Singapore, S-Korea, Japan, Saudi Arabia, Gulf States, Egypt	Russia, Former Soviet Union, Eastern Europe	S-America, Africa, Maghreb, other Middle East, rest of Asia
Attitude to safety	Compliance driven, focus personal safety, fear OSHA, EPA, HSE	Respectful towards workforce, often positive safety culture	Unthoughtful	Company specific, focus personal safety

completely ignores Religion
A. Hopkins

conditional
We are open to the suggestion that the implementation of a corporate identity is possible.
In other words, the authors do not believe that the patterns they observed are inevitable. If global companies are willing to devote the necessary resources, they may be able to implement a uniform corporate style, no matter what the region.

A bias or an asymmetry - paper is not empirical

This is supported by an important empirical study that concludes source & assertion.
More proximate influences such as perceived management commitment to safety and the efficacy of safety measures exert more impact on workforce behaviour and subsequent accident rates than fundamental national values. (Mearns and Yule, 2009)

Shell's experience with a Korean shipyard it contracted with to build several vessels, nicely illustrates this whole issue. Shell was concerned that the fatality rate in Korean shipyards was very high, which was potentially attributable to Korean national culture. But it did not fatalistically accept this situation. It decided to supervise its contract closely and to insist that, where fatalities occurred, shipyard managers be dismissed. This policy was implemented and yielded dramatic improvements in safety. This demonstrates that companies are not at the mercy of local cultures and local ways of doing things. As the saying goes, where there's a will, there's a way.

depending degrees of religious intolerance

demonstrates nothing but the way of political power.

Thesis 2 Organisations have it within their power to ensure that organisational culture over-rides national cultures. - so arrogant! Safety rules!

If an organisational sets out to change its culture, how long will this take? I have heard consultants say that it can take five to seven years. The implication of the Korean shipyard story is far less depressing. As soon as there are real consequences for managers, cultures begin to change.

cultures don't change - assertion on basis of assumption they appear to change.

3 A Definition of Culture

paradox, workably??

There are many definitions of culture. Some attempt to be comprehensive and include so many components that they lack focus. But if we try to extract the essence of these definitions we find interesting differences. Anthropologists tend to focus on collective meanings. In contrast, in the context of organisations, definitions of culture tend to emphasise either values, or practices. The approach used by the company safety advisor mentioned above stressed values. The alternative is to emphasise collective practices: "the way we do things around here". The first thing to note about this latter formulation is the phrase "around here". Although vague, it is clear that this is the culture of some group, perhaps a work group, or a larger organisational group. Second, the practices are inherently collective, and not just a question of the habits of individuals—the way WE do things. Third, and very importantly, there is a normative element to the expression. It carries the connotation that this is the right, or appropriate, or accepted way to do things. These judgements stem necessarily from shared assumptions, or values, or norms.

so focus is? there are many other factors

of course the favourite - of course but he likes it?? so vague but makes clear??

The normative element is demonstrated by the reaction of the group to cases of non-compliance. Consider the practice of holding the handrail while descending

no it doesn't - no discussion on the word 'do'!

OMG. sure lives the old chestnut.

gesture, metaphor meaning?

stairs. If this is indeed the practice in an organisation, there will be a reaction if you fail to do so, ranging from someone reminding you of the rule, to something as unobtrusive as a raised eyebrow. Such reactions may lead a sense of embarrassment or even shame, and can be very effective enforcement mechanisms. Compare this with a situation at my university campus where there are signs saying "cyclists must dismount", but nobody does and there are no consequences. In these circumstances, dismounting cannot be said to be part of the culture, no matter what the university authorities may say. In short, an emphasis on practices does not exclude the importance of norms and values. It just is a question of emphasis.

to banish context
political will
moral power
whose way is this?

In my view; then, the most useful way to define culture is as the collective practices of the group—the way we do things around here. The simplicity and concreteness of this expression enables us to avoid most of the conceptual turmoil that surrounds the term. Discussions about culture so often go their way because culture is an abstract term that rapidly clouds our thinking. As soon as the conceptual fog begins to descend we are less likely to go our way if we retreat to a more solid reference point: "the way we do things around here".

- what!
metaphor for cloud

There is another important reason for preferring this definitional focus when our interest is in changing workplace cultures. Practices can be directly affected by management while values cannot. The organisational anthropologist, Hofstede, puts the point admirably:

metaphor again not paradox or widely again?

Changing collective values of adult people in an intended direction is extremely difficult, if not impossible. Values do change, but not according to someone's master plan. Collective practices, however, depend on organisational characteristics like structures and systems, and can be influenced in more or less predictable ways by changing these. (quoted in Reason, 1997: 194)

- religion? etc.

An organisation which focuses its efforts on changing practices is not of course turning its back on value change. Psychology teaches us that human beings feel tension when their behaviour is out of alignment with their values (Kahn, 1984: 115). There is consequently a tendency to bring the two into alignment. If the behaviour is effectively determined by the organisation then the individual's values will tend to shift accordingly. Thus, if an organisation constrains an individual to behave safely, that individual will begin to value safe behaviour more highly. Focussing on practices, therefore, is not a superficial strategy which leaves the more deep-seated aspects of a culture untouched. Changing practices will in the end change values and assumptions as well. Think, for example, of attitudes to wearing seat belts in cars. When they were first introduced, few people used them. Then they were made compulsory and non-compliers were fined. Accordingly, we changed our behaviour; and over time beliefs themselves changed. Most people now believe it is a good idea to wear seat belts.

Cognitive Dissonance in Religion Faith

- NO!
- NO!

Thesis 3 The most useful definition of the culture of a collectivity is its set of collective practices—"the way we do things around here".

You could be serious
So we override religious faith etc + national values for safety?
- naive + unethical

repeat and true

All assent

4 Description Versus Explanation

Consider the idea of a culture of casual compliance (not *causal* compliance). Such a culture was said to prevail at the BP Texas City Refinery prior to the explosion in 2005 that killed 15 people (Hopkins, 2008: 10). To say that a group has a culture of casual compliance is to make a *descriptive* statement, namely, that people in the group feel no great need to comply with rules and procedures and may do so only when they find it convenient. On the other hand, the statement can be treated as an *explanation* for individual cases of non-compliant behaviour: they occur because of a general culture of casual compliance.

no, it's a political statement.

simplistic - many other dynamics at play

The term "culture of casual compliance" is useful as a *description* because it collects into one category a set of behaviours and attitudes that might not otherwise be linked together. In turn this invites us to explain the phenomenon, using other concepts such as the incentive systems operating in an organisation, or the lack of supervision, or the poor quality of procedures. - not linguistics or ethics.

Behaviourist

On the other hand, treating culture as itself a cause of the behaviour of individuals is of limited value, because it offers no insights into the way we might change the culture. It is particularly unhelpful when analysts treat culture as the *root* cause of a problem since this inhibits further inquiry. Moreover if we identify a culture of casual compliance as the *root* cause of an accident, there is an inevitable tendency to blame the people concerned, which is almost invariably unhelpful, as well as unfair.

ethics!

Thesis 4 In the organisational context, it is usually better to use culture as a description of group behaviour, rather than as an explanation for individual behaviour.

Blame you can't see here!

5 The Sources of Organisational Culture

OMG - straw man.

Having defined organisational culture as the collective practices of the organisation, we can sensibly ask about the source of such a culture. I have at different times given two different answers: structure and leadership. - yes you answered.

Consider first the question of structure. The culture of punctuality that exists in many railway systems is an example of how organisational structure creates culture. This culture of on-time-running often requires trains to arrive at and depart from stations within 3 min of the scheduled time. This sometimes results in trains travelling faster than they should in order to maintain schedules; in other words, the culture of on-time running encourages speeding. This was found to be one of the causes of a rail accident causing multiple fatalities near Sydney in 1999 (Hopkins, 2005). The inquiry revealed that this culture was not just a mindset. It consisted of a set of practices which involved people at all levels. Statistics on on-time-running were presented to the senior management twice a day, after each peak hour. Drivers were subject to detailed performance monitoring, and to various sanctions when they failed to meet schedules. There were large numbers of people whose sole job

unbelievable it's the reverse. culture creates structure - lot more

on time running is a part of the culture but not a culture

unpack

How is on-time running a 'culture'? This is so simplistic it is an insult. never defined.

on-time running is not a child's game!

was to ensure that trains ran on time, all of which involved a considerable commitment of resources. It was this organisational apparatus that ensured the pre-eminence of the culture of on-time-running.

The petroleum company, BP, provides a second instructive example. The well blowout in the Gulf of Mexico in 2010 nearly destroyed the company, which determined to change its culture to ensure that this could never happen again. It did so by creating a powerful Safety and Operational Risk (S&OR) function that reported to the CEO. Each geographical business unit had an S&OR manager sitting on its management committee. That S&OR manager was not answerable to the head of that business unit, but to a higher level S&OR manager who answered in turn to someone on the executive committee of the whole BP group. That person reported directly to the CEO of the group. This empowered the S&OR representatives at the local business unit level to stand up to the local business unit leader if they thought it necessary, without jeopardising their careers. The resulting culture gave a greater emphasis to operational excellence than previously. This is a particularly clear example of the way in which structure builds culture", as an S&OR manager told me, quite unprompted, at interview.

This structural perspective contrasts with a second approach to understanding the source of culture — leadership. Organisational psychologist Edgar Schein puts the point as follows

Leaders create and change cultures, while managers and administrators live within them. (Schein, 1992: 5)

This is a deliberately provocative statement designed to flatter top leaders into action, but his point is clear enough. If the culture of an organisation is secretive, it is because its leadership has encouraged secretive behaviour; if it is bureaucratic, it is because its leaders have encouraged bureaucratic functioning.

How then do leaders create cultures? I turn again to Schein.

[Leaders create cultures by] what they systematically pay attention to. This can mean anything from what they notice and comment on to what they measure, control, reward and in others ways systematically deal with.

It is immediately apparent that identifying leaders as the source of culture is not inconsistent with the structural perspective just discussed. The point is that if something is important to top leaders they will set in place the structures that are necessary to ensure the outcomes they want. Leaders create the structures that will in turn institutionalise a certain kind of organisational culture. On-time-running in the rail system is an excellent example of this process.

? [We must ask finally why it is that top leaders have set in place the structures that in turn create particular cultures. The answer will often lie outside the organisations concerned. For rail systems, the source of concern for on-time-running is public pressure, expressed through various political channels. Sometimes there is even an external regulator that penalises failure to run on time. In the BP case, preventing another major accident became an over-riding concern because of public outrage, as well as the massive financial consequences of the Gulf of Mexico accident. Most importantly,

Political power

OK so that proves it?

Normative

No it doesn't

structure creates power politics revolutions?

unconscious?

Behavioral.

so is it a structure created inside or an external dynamic?

power politics

- make safety personal

the threat of legal action is a powerful incentive to company officers to put in place structures that will focus attention on safety, and the possibility that CEOs or even directors might be prosecuted has become increasingly real in many jurisdictions.

This external perspective is valuable in counteracting the simplistic view that it all depends on the personal beliefs of the CEO. I have often heard corporate safety managers say that their company is lucky to have a CEO with a passionate personal commitment to safety. Why it is that so many CEOs of global companies today have a passionate commitment to safety, while their counterparts a couple of generations ago apparently had no such commitment? It is hardly likely that the CEOs of today are morally more evolved than those of the past. It is far more plausible that the external environment is now less forgiving of workplace accidents, especially where there are multiple fatalities.

policy

Thesis 5 Organisational cultures depend on the structures that organisations put in place to achieve important outcomes. These structures reflect the priorities of top leaders. The priorities of leaders in turn may depend on factors outside the organisation, such as regulatory pressure and public opinion.

Opening claim was just about evidence?

6 Emergent Versus Managerialist Culture

One of the many problematic distinctions in discussions of organisational culture is that between the emergent and managerialist perspectives (Glendon & Stanton, 2000; Haukelid, 2008; Silbey, 2009). These two perspectives are said to have dominated the literature. I touch on this here, ever so briefly, because it has to so much confusion.

ontology not paradox or wickedly

The first perspective, which has its roots in sociology and anthropology, is that the culture of a group is emergent, that is, it emerges from the group in a spontaneous way. On the other hand, the managerialist view, originating in management theory, is that culture is a device that management can use to coerce and control. The first is a bottom up view of culture, while the second is a top down view. These are presented as competing perspectives. The emergent view is sometimes described as an interpretive approach, while the managerialist view is sometimes described as functionalist (Glendon & Stanton, 2000).

Has become a new truth

This distinction is problematic, however, because it confuses two things: the nature of culture and the origins of culture. We can see this by going back to basics. Culture is the way we do things around here. This presupposes neither an emergent nor a managerialist view. The origin of the ways we do things around here is another matter. These ways may well have emerged relatively spontaneously in the group in question, or they may have been engineered by leadership in the manner discussed above. This is surely an empirical question to be determined by investigation. Indeed aspects of the culture may have emerged spontaneously from the group while others have been engineered. If workers at a work site routinely wear hard hats but routinely fail to wear harnesses when working at heights, despite rules requiring them to do so, we can be fairly sure the former practice has been engineered while the latter has emerged from within the group. We don't need to choose

- COP out

PPE, really?

of course the former is method for control

the poor old propagative cloud + fog - attribution to moral value

at the outset between emergent and managerialist accounts of culture, nor even to adopt some middle position. Rather we can simply ask questions like: what are the limits on leaders' abilities to shape the culture of a work group? The distinction between emergent and managerialist conceptions of culture generates a conceptual fog in which many people have lost their way.

OMA Products

metaphor

Thesis 6 The distinction between emergent and managerialist views of culture is misleading.

- haven't heard of abuse yet?

7 Safety Culture

always source safety

Finally, safety culture is a term that has led to endless confusion. According to the first and still widely quoted definition of the term, it is an organisational culture in which "safety is an over-riding priority" (quoted in Reason 1997: 194, my emphasis). On the basis of this definition one would have to say that *very few* organisations have a safety culture. As Reason says,

sure give any an ability to think!

like a state of grace a safety culture is something that is striven for but rarely attained.

FonCSI, the Foundation responsible for this book, implicitly adopts this position in its very name—Foundation for an Industrial Safety Culture. Here, "safety culture" is being used to describe an aspirational goal, not a characteristic that all organisations have.

On the other hand most users of the term assume that *all* organisations have a safety culture, be it good, bad or indifferent. This is just one of the numerous inconsistencies and confusions that surround the term, since if we accept the definition given above, it makes no sense to speak of a "bad safety culture".

aspire theological spiritual both unattainable

Another source of confusion is that, notwithstanding endless attempt to distinguish between safety culture and safety climate, these two terms are often used interchangeably. (Zohar, 2010, is one writer who uses the safety climate with complete consistency.)

Here is how one recent review summed up the whole situation.

[Despite all that has been written,] safety culture remains a confusing and ambiguous concept in both the literature and in industry, and there is little evidence of a relationship between safety culture and safety performance. ...

Workplace safety may be better served by shifting from a focus on changing 'safety culture' to changing organisational and management practices that have an immediate and direct impact on risk control in the workplace. (SIA, 2014: 8)

This echoes my earlier comments about organisational practices. Notice too that it directs attention to organisational practices without explicitly defining this as the culture of the organisation. In so doing it sensibly sidesteps any definitional debate and goes straight to the heart of the matter.

if wished can't be defined controlled! simple undisturbed

The question I briefly address here is *why* the term "safety culture" leads to so much confusion. A major reason (there are others) is that the term itself is linguistically

77

from a non-linguist.

problematic. Consider the following compound terms: safety culture, organisational culture, workplace culture, peer-group culture, aviation culture. Safety culture is the odd one out in this list. For all the others, the qualifier—organisational, workplace, etc.—specifies the *group* which is the bearer of the culture. The term says nothing about the *content* of the culture—that remains unspecified. There is thus relatively little scope for confusion. In contrast, with the term “safety culture” the qualifier “safety” does not specify a group. It refers to a quality. (A similar point is made by Schein, n.d.). This is a source of confusion. Does it mean that the culture in question exhibits the quality of safety? If we were to coin the term “punctuality culture” it would have to mean a culture that emphasises punctuality. By analogy, the most natural meaning of safety culture is a culture that emphasises safety. As I have said, this is contrary to the way the term is often used. Safety culture’s slide away from its “natural” meaning is facilitated by the fact that safety is a noun, not an adjective. The term “safe culture” would allow no such slippage. It would have to mean a culture that emphasises safety. Clearly, we are now hopelessly entangled in words. And the fault lies not in our thinking; it is the very term “safety culture” that has knotted us in knots.

Moreover, this may be a peculiarly English language phenomenon. Neither French nor Spanish have a literal equivalent for “safety culture”; they speak instead of a “culture of safety” (*une culture de sécurité, una cultura de seguridad*), the linguistic implications of which are different. This phrase must surely mean a culture that emphasises safety—a culture that exhibits the quality of safety. If the whole debate about safety culture had occurred exclusively in French or Spanish, I suspect that the primary meaning, indeed the only meaning of *une culture de sécurité* or *una cultura de seguridad* would be a culture that emphasises safety.

I was not dogmatic about safety culture when I first wrote about the concept more than a decade ago. But I did quite deliberately title my book at the time *Safety, Culture and Risk*, not *Safety Culture and Risk*. Today, if I had my way, I would banish “safety culture” from the English language.

Thesis 7 The term safety culture is so confusing it should be abandoned.

Finally, if “safety culture” is abandoned, what terms might be used instead?

If we are talking about a culture in which safety is paramount, then several terms come to mind—a safe culture, a generative culture (Hudson, Parker, & Lawrie, 2006), or even a culture of safety. We can also get away completely from the word culture and talk about mindful organisations (Weick, Sutcliffe, & Obstfeld, 1999), or operational discipline (Angiullo, 2009), or operational excellence (Digeronimo & Koonce, 2016).

On the other hand, if the starting point is that all organisations have a safety culture, then a question like “how good is an organisation’s safety culture” can be replaced by “what priority does the organisation give to safety?”. Interestingly, in this example, “safety culture” has been effectively replaced by “safety”. Or we could ask about risk management practices—a far more down to earth term. Note the word used is practices, not procedures. It is the way we actually do things around here, not the way we are supposed to do things that is of interest.

So all is not lost. There are still plenty of terms available to convey one’s intended meaning, whatever it may be.

This is?
What Hopkins wants

not used as adjective

of course because it's wicked problem

not a quality with fog + cloud

no an industry

not a quality or effort but an outcome

— amplifies the problem head in sand

metaphor with cloud fog + knots. all emotive response to wickedness + paradox.

no method with which to tackle paradox
- linear
- reductionist

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all safety
has one

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Chapter 5

The Safety Culture Construct: Theory and Practice



M. Dominic Cooper

always conducted by business

Abstract Safety culture means different things to different people which subsequently guides their improvement efforts. Providing clarity, the essence of the safety culture construct is that it reflects a proactive stance to improving occupational safety and reflects the way people think and/or behave in relation to safety. The extant evidence shows the best proactive stance is to target the significant safety issues found nested within the common safety characteristics (management/supervision, safety systems, risk, work pressure, competence, procedures and rules) identified from public enquiries into process safety disasters. This is best achieved by focusing on the entity's safety management system and their people's safety related behaviours, not by trying to change people's values, beliefs and attitudes. A revised model of safety culture is offered to help guide readers in their quest to improve their safety cultures, along with an adapted model of safety culture maturity. In addition, based on academic evidence and practical experience gained over the past 25 years in numerous industries and countries, the author provides insights into specific issues regarding the influence of senior executives, the impact of national cultures when working on international projects, whether policies and tools should be the same or differ when addressing potential minor, serious and catastrophic events, and who should be involved to drive an organisations safety culture to achieve excellence.

readed di challenge dismissive

no layout sanitaries etc accepted from

Keywords Safety culture · Safety culture models · Safety culture product
Behavioural factors · Psychological factors · Situational factors
Safety culture maturity

OMG - what an attention, and what drives systems? ontology!

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1 Safety Culture Theory

The 'safety culture' construct refers to, and is used to, encapsulate and explain organisational safety failings (IAEA, 1991). Its *purpose* is to improve occupational safety in organisations, by preventing low frequency, high severity events such as Chernobyl, Bhopal, Piper Alpha, Texas City, Deepwater Horizon, etc. as well as high frequency, lower impact events (i.e. personal injuries, etc.).

all projectors
not have used in industry
- usually habits attitudes

1.1 The Safety Culture Construct

The evolution of any construct proceeds through three overlapping stages (Reichers & Schneider, 1990):

- constructed

1. *introduction and elaboration* is characterised by attempts to sell the ideas and legitimise the new construct;
2. *evaluation and augmentation* is where critical reviews and early literature on the construct first appear identifying the constructs parameters; and
3. *consolidation and accommodation* is where controversies wane and what is known is stated as a matter of fact.

it has no order!

First introduced in 1984 after the Bhopal disaster, the International Atomic Energy Agency (IAEA, 1991) elaborated on the safety culture construct when defining it as

that assembly of characteristics and attitudes in organisations and individuals which establishes that, as an overriding priority, [nuclear power] safety issues receive attention warranted by their significance.

This clarity led directly to the *evaluation and augmentation* stage. Unfortunately, many influential scholars ignored the IAEA's definition as it did not reflect their 'academic' positions. Under the guise of theoretical purity, academe lost sight of the construct's main purpose—'to stop process safety disasters and serious injuries and fatalities'. There are now more than 50 definitions of the safety culture construct (Vu & De Cieri, 2014) which cause considerable confusion (Hale, 2000) in both industry and academe.

At the heart of these definitional disagreements over the past 30 years or so, is the conflict between interpretive and functionalist approaches. Favoured by social scientists, interpretative approaches state *the organisation is the culture*, where 'cultural' realities are socially constructed solely by the organisations membership. The interpretive emphasis is on gaining an in-depth understanding of the prevailing cultural influences (i.e. assumptions and attitudes) affecting people's behaviour. Conversely, the functionalist approach is favoured by managers and practitioners (the owners of safety culture) who view culture as a variable to be engineered to suit the prevailing circumstances to affect performance by addressing

set dichotomy
set the agenda + define problem by world view

paradigmatic
'confusion is of course bad'
perhaps its 'paradox + wickedness'
note metaphor of cloud + fog

management system faults, people's safety related behaviour, risk-assessments and decision-making.

Almost all of those attempting to define the safety culture construct ~~are~~ it reflects a proactive stance to improving occupational safety (Lee & Harrison, 2000), and the way people think and/or behave in relation to safety (Cooper, 2000). In reality therefore, most safety culture definitions are functionalist, albeit the interpretive view emphasises shared values, beliefs, attitudes, and norms.

really, not mine!

within Cooper's circle of DBS cult!

really bridge? this is called 'projection'

1.2 Influential Safety Culture Models

During the period 1986-2000 three influential models of safety culture were developed to guide theory, research and practice:

- sets agenda by safety

1. Guldenmund's (2000) adoption of Schein's (1992) interpretive three-layered organisational culture framework reflecting anthropology and organisational theories;
2. Cooper's (2000) reciprocal safety culture model, based on a functional approach leveraging Social Learning Theory (Bandura, 1977); and
3. Reason's (1998) five inter-dependent sub-cultures (informed, learning, reporting, just, and flexible cultures) based on incident analyses.

Each attempted to provide an actionable framework, and each has been influential in the sense that researchers, regulators and industry have made use of them in some empirical and/or practical capacity.

Guldenmund's (2000) interpretive model contains three layers:

no sense of intention

1. unconscious and unspecified (invisible) core basic assumptions: the assumptions or suppositions about safety are not articulated, but are taken for granted as the basis for argument or action;
2. espoused beliefs and values: operationalised as relatively explicit and conscious 'attitudes' whose targets are hardware (safety controls), software (effectiveness of safety arrangements), people (functional groups) and people's safety-related behaviours; and
3. artefacts: visible safety objects (e.g. inspection reports, safety posters, etc.).

so much missing from what culture is.

~~this model~~ 'culture' is viewed as a pattern of core basic assumptions, invented, discovered, or developed by a group as it learns to cope with external adaptation and internal integration. Explicitly recognising sub-cultures of the overall culture, these differ for executives, engineers and operators. Reducing any significant negative discrepancies between these sub-cultures requires meaningful dialogue between all parties, so they can be explored and minimised by agreeing standardised solutions to practical safety issues (Cooper & Finley, 2013).

Cooper's (2000) functionalist reciprocal model treats safety culture as a sub-culture of an organisations overall culture, while highlighting that it is the

started by which Cooper sees the world + culture

not Jungian was non-conscious

what model?

* construct + product 77
* nothing mysterious or unlinked here!

product of multiple goal-directed interactions between people (psychological), jobs (behavioural), and the organisation (situational). The psychological, behavioural, and situational aspects are the inputs to the safety culture construct, with the key transformation process being the organisations goals, expectations and managerial practices to create the prevailing safety culture product (Cooper & Finley, 2013). Formally adopted by the American Petroleum Institute (2015) and the American National Standards Institute (ANSI), the prevailing safety culture is reflected in the dynamic reciprocal relationships between members' perceptions about, and attitudes toward, the operationalisation of organisational, safety goals; members' day-to-day goal-directed safety behaviour; and the presence and quality of the organisation's safety systems and sub-systems to support the goal-directed behaviour.

product!!
culture as
product
commodity.

Reason (1998) categorically states safety culture is not a unitary construct as it is made of a number of interacting elements. He equates safety culture with an 'informed culture', which is dependent in turn upon an effective 'reporting culture' underpinned by a 'just culture'. Simultaneously, a 'flexible culture' is required if the organisation is to reconfigure itself in the light of certain kinds of dangers, which in turn will require a 'learning culture'. To some degree these are both objects of, and processes that create, the safety culture *product*: an informed culture.

Cooper's good

Reason's
gobbledygook

OK, anchored to Reason, of course

1.3 Reviewing the Evidence

* cultural 'types'

- review safety by safety lens.

Cooper's (2016a) recent major review of the safety culture research literature published over the past 30 years showed Guldenmund's interpretive model is clearly *not* linked to actual safety performance. A major conceptual difficulty is that invisible core basic assumptions and/or attitudes are the central core of the safety culture construct, but the evidence shows the link between attitudes and actual safety performance is non-existent to weak. Thus, in the absence of goals and action, changes in core basic assumptions and attitudes will not stop process safety disasters or serious injuries and fatalities. Conversely, both Cooper's and Reason's models were clearly linked to actual safety performance. Evidence reveals companies should focus at least 80% of their culture change efforts on situational (e.g. safety management systems) and behavioural factors to prevent process safety disasters and Serious Injury and Fatality (SIF) incidents. For example, top management can positively influence an organisations safety culture by paying attention to the *effectiveness* of the development, execution, and performance of the safety management system, frequently questioning managers about safety matters during routine meetings and frequently visiting various business units to discuss safety issues.

77
assess
1+2

metrics
Traditional
safety

metrics
cost
structure?
all drawn
from own
behavioural
assess

Attempting to *consolidate and accommodate (stage 3) to make clear what is known*, making use of the IAEA's (1991) definition of safety culture as a framework, Cooper's (2016a) explored its constituent parts. What are the assembly of

A really, no evidence for
assess
All assess according to
worldview.

so culture has a character?
Research?

safety culture characteristics? The assembly of attitudes? The significant safety issues?

A consensus was found on six major safety culture characteristics when examining academic research and the results of public enquiries into process safety disasters:

1. management/supervision;
2. safety systems;
3. risk;
4. work pressure;
5. competence; and
6. procedures and rules.

no linguistic characteristics
- semantics
- social psychology
- religiosity?

Typically, each of these characteristics are contained in modern safety management systems (e.g. OSHA (S) 18001:2007; ANSI-Z10: 2012) implemented in many countries. Already, aligned with existing practical and proven Health, Safety and Environment (HSE) strategies and processes, companies should prioritise these safety culture characteristics to effect change.

Which of these characteristics effect change?

Respectively reflecting the interpretive and functional perspectives of safety culture, academe tends to emphasise the associated psychological factors of these six characteristics, whereas the results of public enquiries focus almost entirely on improving tangible situational and behavioural factors within company operations. Although there were at least twelve psychological factors to target to influence safety culture change, none were found to be consistently and reliably linked to actual safety behaviour or actual safety incident rates. Instead, results revealed a sole focus on psychological factors when changing and/or assessing safety culture (a common approach in industry) ~~is fatally flawed~~. Conversely, both situational and behavioural factors were clearly linked to actual safety performance. As such, companies are urged to stop focusing on psychological factors and concentrate their improvement efforts on tangible situational and behavioural factors.

performed by engineers

not wanted + attention or trust hope

Common significant safety issues within each of the six safety culture characteristics were also explored by examining a series of independent studies into the causal factors across numerous process safety incidents (e.g. Collins & Keely, 2003). This showed 80% of Loss of Primary Containment incidents (LOPC's) are commonly caused by managerial behaviours, or lack of, and that 80% of process safety disasters occur during normal routine everyday operations (64%) and maintenance (16%). Depressingly, similar managerial behaviours were also found to be related to the occurrence of SIFs. Such dramatically clear findings show safety leadership has to become a fundamental managerial competency. - measurable.

attention value judgement according to BBS

because they can't be measured. engineering safety. attention

Figure 1 presents the universally applicable targets of safety culture (i.e. its characteristics and the significant safety issues associated with each) identified by Cooper incorporated into a revised reciprocal safety culture model (Cooper, 2016a). It shows companies should focus on the common root causes of Process Safety and SIF incidents to drive desired behaviour. The principle is to optimise the situation to optimise the behaviour. In turn, as the desired behaviours become habitual, the various psychological factors will become more positive.

which is?

now

which are neurological.

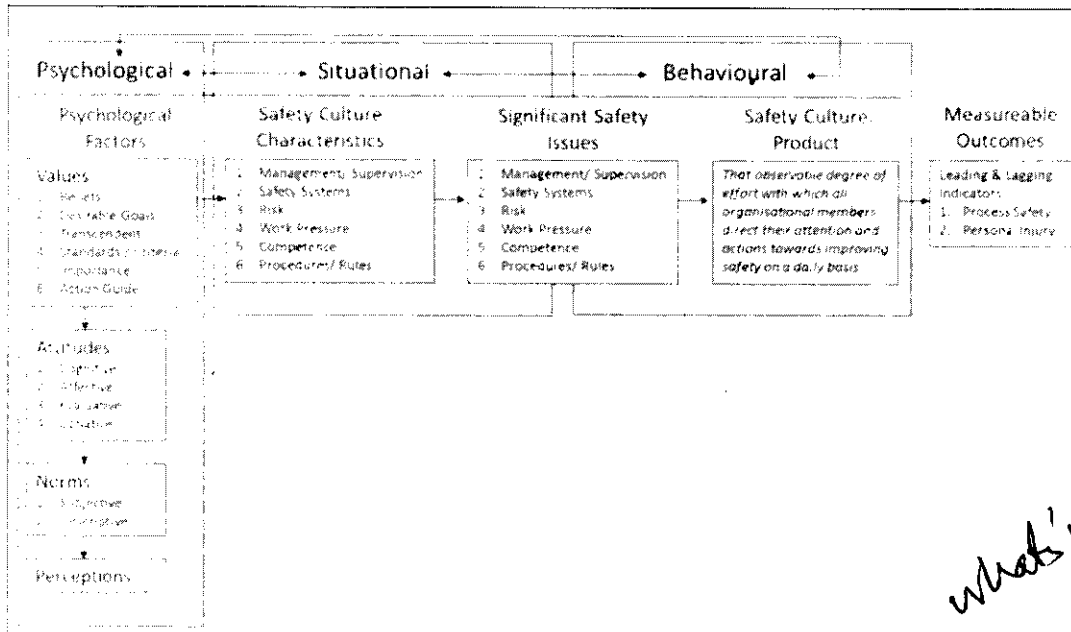


Fig. 1. Cooper's (2016a) revised reciprocal model of safety culture

what's missing?
 subject?
 * linguistics, semantics, webinars, ethics, politics, religion, theology

Summarised below, a focus on the salient issues and the evidence-based solutions to address them that would change company's safety cultures for the better (see Cooper, 2016a for details) are:

The 'Management and Supervision' characteristic is primarily concerned with people's visible safety leadership: ineffective safety leadership often stems from confusion about (a) the company safety management systems and associated policies; (b) a leader's individual safety responsibilities and obligations; (c) the leader's and others' authority over safety; and (d) what leaders are being held accountable for (Cooper & Finley, 2013). This confusion has often led to managers and supervisors failing to adequately plan activities, not managing the safety of operations, and not being adequately prepared for an incident (e.g. IAEA, 2014). could help if companies developed Leadership Behavioural Competency and Accountability Matrices defining its managerial and supervisory roles and responsibilities, clarifying what people are expected to do and when, with associated performance measures being used to ensure leaders are doing the right things at the right time, for the right reasons.

The 'Safety Systems' characteristic refers to any formalised *strategic* system to control HSE. Based on the LOPC research, however, it is argued the primary areas of opportunity consist of optimising: (a) two-way safety communications processes; (b) incident analyses and lessons learned processes; (c) the design of plant, equipment, and processes so that safety is an integral element; (d) asset integrity to ensure material conditions meet the expected standards; and (e) management of change processes to ensure they are related to risk assessment and analysis. Each of these require clear policies and procedures.

selling
 Believe your own lies

Read BBS.
 lead taking
 -> human dialogue discourse dialectic?

more traditional BBS
 the whole purpose of safety is NOT to learn.

what is the character of risk?

The 'Risk' characteristic refers to (a) risk appraisal; (b) risk assessment; and (c) risk controls. The LOPC research points to a significant number of failures in each of these areas, indicating that the 'Risk' characteristic represents a fundamental weakness in the majority of companies.

The 'Work Pressure' characteristic primarily refers to the safety-production conflict that stems from competing priorities, lack of resources or of a willingness to treat *safe production as the number one priority*. The costs of incidents tend to outweigh any perceived advantages of placing productivity before safety (HSE, 2016), but this is often overlooked by managers trying to satisfy their immediate job-related needs. This is one area where a company's top management team can unequivocally stamp its authority on its managers and operators, by setting the right expectations and reinforcing them through an alignment of their Key Performance Indicators (KPIs) and productivity bonus systems.

blame

BBS

The 'Competence' characteristic refers to the knowledge, skills, and abilities people possess to do their job efficiently and effectively. From a process safety perspective, poor competence is often revealed in control rooms when operators fail to recognise and react to early warning signals and/or adequately respond to incidents. Similarly, plant personnel often misuse or incorrectly operate equipment and/or fail to complete isolations properly. It is imperative that people are sufficiently trained in the safety aspects of their jobs to the point ~~that~~ they cannot get things wrong. Currently, people often receive training only until they get something right. In essence, rehearsal is the key to developing people's competence.

infectible

777

no bridge?

The 'Procedures/Rules' characteristic refers to all those codified behavioural guidelines developed by companies to form their safety management system. In too many cases, process safety catastrophes and SIFs stem from (a) an absence of procedures (e.g. a lack of procedures altogether, or those developed are not freely available to the workforce); (b) the presence of poor quality procedures; and (c) a lack of procedural reviews. These situations lead to non-compliance, where managers tend to circumvent the administrative aspects of safety, or put productivity before safety, while employees tend to circumvent them to make their task easier in some way. Clearly, the way forward is to (a) identify any gaps in written procedures; (b) allow the workforce to review the existing procedures to ensure they are safe, they make sense and are easily understood; (c) monitor procedural compliance, and (d) regularly audit those procedures involved in near-miss incidents or accidents.

what falls short?

so rehearsal is learning part of training

valid that BBS safety

Incorporated into the model presented in Fig. 1, the safety culture product,

that observable degree of effort with which all organisational members direct their attention and actions towards improving safety on a daily basis (Cooper, 2000)

commodity produced by??

provides a universal measure of safety culture with which to assess the impact of change (i.e. are people putting in more effort to improve safety as a result of an intervention?). Evidence (e.g. Vogus & Sutcliffe, 2007) shows this product is a viable and practical means of measuring safety culture. The results can be graded

OHG. so failure is always lack of effort + solution is putting effort? surveillance

so effort is a universal measure of safety culture

DMG. another Bradley Curve

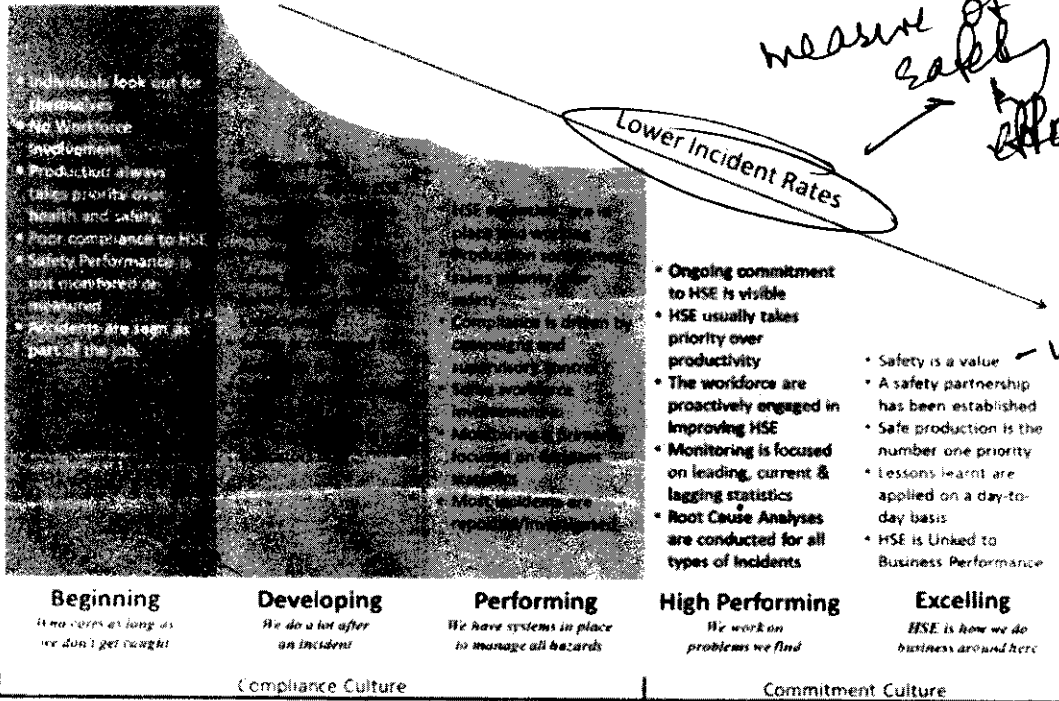


Fig. 2 Adaptation of the British health and safety executive's (2011) safety culture maturity model

★ Bradley Mark II

against safety culture maturity models (e.g. HSE, 2011) which facilitate benchmark assessments within a company or against others in industry. Typically, these are divided into five safety culture maturity levels (see Fig. 2) specifying an organisations level of effort (e.g. Beginning, Developing, Performing, High Performing, and Excelling) as it progresses on its safety culture improvement journey, and are, therefore, *de facto* measures of the safety culture product, "that observable degree of effort..."

Safety culture assessments are typically conducted on an annual or bi-annual basis. In the interim, it makes good commercial sense to develop leading KPIs that focus on the safety characteristics outlined above, but with an emphasis on what people do, so that the level of effort put into safety (i.e. the safety culture product) can be easily monitored. For example, KPIs for the 'Management and Supervision' characteristic could include (a) the number of corrective actions completed with 30 days; (b) the number of safety observations and conversations a manager/supervisor had with the workforce each week. Such measures facilitate and enable transparency. In turn, this allows companies to monitor the integrity, and maintenance of its improvement initiatives, while also revealing the status of their safety culture product.

Because you didn't try hard enough

effort
not!

BBS

polishing

how?

how?

no other don't transparency based on integrity

volume equals quality of course never done well or effectively in BBS - agenda inhibits working

so the KPI is effort

2 Safety Culture Practice

Given the *purpose* of the safety culture construct is preventing process safety and personal injury incidents, what should industry do to help ensure this? Typical questions are:

To what extent can changes in safety culture be achieved as a result of decisions by top management?

Executive level managers and board members have to prioritise and balance safety against production, stock-market concerns and other commercial/operational/political pressures. The expectations they set, the management practices they reinforce, and the performance outcomes they reward (i.e. shaping the situational aspects) will all influence the safety culture. ExxonMobil provides a true example of ensuring safety is an integral part of their operating culture, where they strongly believe protecting the safety and health of their workforce is fundamental to its business. In 2007, ExxonMobil drillers in the Gulf of Mexico asked if they could stop drilling the Blackbeard West at 30,000 ft (the goal was 32,000) as they felt it was too dangerous to drill deeper, having experienced a 'kick' that made the platform tremble. The prize was over a billion barrels of oil and the geologists wanted to continue because of the rewards on offer. The decision was pushed right up to the CEO, who erred on the side of safety, saying the 'Well' had only cost \$180 million dollars to date. He received strong criticism from Wall Street but no lives were lost. In contrast, the Deepwater Horizon drillers were ignored when they expressed similar concerns about the Macondo Well. This ultimately cost 11 lives, the loss of a platform, an environmental disaster, with BP's costs and fines reaching \$42 Billion to date. Clearly, executive level managers who consider the safety element in all their decisions can guide and impact others decision-making and actions to prevent disasters and personal injuries. This again points to the fundamental importance of safety leadership in everyday operations: ensuring safety before profit, cultivating a trusting and fair culture, making decisions that err on the side of safety, developing safety competencies for all, applying lessons learned, ensuring compliance to well-written rules and procedures, and constantly communicating meaningful safety messages. If senior managers do not manage and reinforce these issues, their company's safety culture will never achieve excellence.

What are the relative influences of the national/local culture, corporate culture, and professional cultures, on the safety culture of a given entity?

A study in the global Oil and Gas industry showed western countries tend to have higher risk tolerance and higher incident rates than Asian countries, who have much higher respect for authority (Brown, 2012). Total Recordable Incident Rates were much lower on projects where the site safety culture embodied a combined 'high perception of risk' and 'low tolerance of risk', compared to those with a high/low perception of risk and high tolerance for risk. Other work (e.g. Perez-Floriano & Gonzalez, 2007) shows there has to be respect for national culture traits by working with them if risk management programs are to be successful. National cultural differences reside mostly in values, while at the organisational level,

Comparing apples to oranges
Exxon to BP
Deep Water

Minimizing process safety

+ what is learning?
77
Trade safety

How?
No
?

Which are?

of course how?

religion?
meaning?

7
 cultural differences reside mostly in practices (Hofstede, 1983) suggesting that national cultures can be over-ridden by the company's practices and their prevailing safety culture. This is reinforced by Mearns and Yule (2009) who found that proximal influences such as perceived management commitment to safety and the efficacy of safety measures exert more impact on workforce behaviour and subsequent accident rates than fundamental national values. Another example showed exemplary safety leadership practices in conjunction with genuine employee engagement on a middle-east construction project with 47,000 third-party nationals from 64 countries led to 121 million man-hours worked without a single lost-time accident (Cooper, 2010). Thus, the key ingredient for success is the quality of safety leadership at the local level to ensure risk management initiatives are implemented effectively. However, expats who provide local site leadership ~~must~~ be provided with the tools and skills needed to address a broad spectrum of local cultural needs.

Should the safety culture be the same in the whole corporate organisation, or should it be implemented diversely according to local activities/cultural features?

There have always been sub-safety cultures (even in the same facility) which is likely due to each group's differing 'frame of reference' for viewing the risks presented by tasks (Cooper, 1997). The real issue is whether this should be catered for in some specific way. In the author's experience, the role of the corporate executive team is to provide a clear framework for action that sets the parameters, but allows for some degree of local variation: the main point being that people are doing things to improve safety within the parameters set. This approach, commonly known as 'pull and push', is where a global framework (i.e. policy, template tools, roles and accountabilities, resources, time frames, etc.,) is provided by the corporate offices, but these are tailored and implemented to suit local conditions. The underlying principle, therefore, is to do safety with people, not at them. This is also where the participation of engaged employees comes into its own, as they are intimately familiar with all aspects of their work and can provide insights often overlooked by corporate safety departments and managers.

Should occupational safety regarding minor risks, the prevention of fatalities and the prevention of major industrial risks be managed with the same policy and the same tools?

In principle, the policies that govern occupational safety to prevent and protect people from workplace hazards and risks are broadly similar: they attempt to define a problem area, assess its scope, and give direction on the control of the issues. However, the tools and strategies required to control the various aspects of Safety and Health will differ. Recent work on SIFs shows that the causes of life-threatening and life-altering events tend to be different than those for minor personal injuries (Cooper, 2014; Wachter & Ferguson, 2013). Thus, a specific SIF program targeting *potential* SIFs is required. The same can be said for process safety with its emphasis on the blending of engineering and management approaches, as event outcomes are very different from personal injuries, albeit the underlying managerial causes tend to be the same for both. A good/poor safety culture affects all managerial aspects of Occupational Safety and Health.

non-linear
 Q

water
 bullet

BSs
 does
 the
 opposite

Fark!
 no he
 doesn't!

conditional
 ?
 ?
 wearing?

- spin.
 see
 previous
 discourse

* Yep
 how's that
 waiting for ya?

Who should drive an organisation's safety culture to help it evolve?

Two key initiatives (i.e. situational changes) are known to drive an organisation's safety culture to achieve safety excellence: safety leadership and employee engagement, within a formal ethos of developing a 'safety partnership'. Both are contained within the 'Management/Supervision' characteristic in the model shown in Fig. 1, and lend themselves to monitoring the safety culture product, "observable degree of effort...".

oh yes, not enough faith or effort
so the product is effort.
- what determines will, energy, motivation, purpose

2.1 Safety Leadership

Defined as

The process of defining the desired state, setting up the team to succeed, and engaging in the discretionary efforts that drive the safety value (Cooper, 2015),

safety leadership is widely recognised to be extremely important, especially when the prevailing safety culture is weak (Martínez-Córcoles, Gracia, Tomas, & Peiro, 2011). A company's safety culture is driven by the executive leadership team who creates, cultivates, and sustains its journey to excellence. They set the vision and the strategic direction (i.e. the desired state), provide resources (i.e. set up the team to succeed), and constantly emphasise and reinforce the importance of safety to people and the business (i.e. engage in the discretionary efforts to drive the safety value). For a variety of reasons, ineffective safety leadership is a major blockage to achieving success in many companies (Cooper & Finley, 2013).

Recent research, summarising 328 safety leadership studies, examined the impact of transformational, transactional and servant leadership styles on actual safety performance (Cooper, 2015). All three styles directly influence people's safety behaviour, which in turn reduce incident rates. However, the positive effects were stronger for servant leadership. The major difference is a servant leadership style naturally creates a supportive environment that exerts strong direct influences on employee engagement, safety behaviour, and incident reduction, which the transformational and transactional safety leadership styles do not. In practice, leaders who engage in meaningful two-way dialogues with the workforce induce a collaborative learning environment and facilitate other people's safety needs, helping to create the supportive environment that appears so important for improving safety performance.

Unfortunately, there are always two sides to a coin: the more hazards and risks that are present in the working environment, the lower the impact of any safety leadership style and the bigger the barriers to creating a supportive environment. If a company's safety leadership efforts are to flourish, it is imperative that a supportive environment is also developed for managers, and sufficient resources provided so they can eliminate or reduce known hazards/risks to as low as reasonably practicable (ALARP).

Top down?
KPI is effort
3
??
meaning
how

culture is mostly bottom up.
? not enough effort.
really how?
by what method?

would have no idea what this is!
value of this happens in BBS.
so if incident rates increase no leadership = lack of effort!

never defined!

2.2 Employee Engagement

How, what is it?

The business benefits to be obtained from employee engagement are huge. Studies have shown that (a) where employee engagement was low, companies had 62% more safety incidents (Harter, Schmidt, Killham, & Asplund, 2006); and (b) where employee engagement was high, engaged employees were five times less likely to experience a safety incident, and seven times less likely to have a lost-time safety incident (Lockwood, 2007) than non-engaged employees. Employee engagement is an approach designed to help ensure employees are committed to an entity's goals and values, while motivating people to contribute to that entity's success. Such entities tend to possess a strong and genuine value for workforce involvement, with clear evidence of a 'just and fair' culture (Reason, 1997) based on mutual respect between the entire management structure and the workforce. The key aspect is ensuring an understanding by all concerned that engagement means two-way dialogues that lead to joint decision-making about the best way forward, while also acting together to make things happen: managers deliberately reach out to engage with employees to focus on issues of importance (e.g. safety), who in turn proactively and positively engage with management. In sum this means creating a genuine safety partnership between management and the workforce to improve safety performance.

measure LTIS.

True safety

What is this approach?

meaning? not in BBS.

so much spm + gobbledegook by what method?

2.3 A Safety Partnership

A safety partnership is defined as:

Leadership, managers and front-line associates jointly focusing on safety and proactively working together in a business entity to minimise the possibility of harm and maximise safety performance. (Cooper, 2016b)

Creating a genuine safety partnership, therefore, means management and the workforce jointly working towards achieving common and understood safety goals, with clear and consistent communication, efficient monitoring, reporting, and decisive action to investigate blockages and take the appropriate corrective action as needed.

practical safety

The key drivers for developing and maintaining a safety partnership are straightforward and involve (a) effective safety leaders who develop a supportive environment; and (b) reducing the degree of risk presented by the nature of the work. High levels of managerial support lead to higher levels of engagement, which in turn lead to much higher compliance with safety rules and procedures. Moreover, reducing levels of risk presented by hazards and high job-pressures also leads to much higher compliance with safety.

meaning? more goop

Specific areas of safety that joint management and workforce teams can use to develop a proactive safety partnership include: (a) safety leadership skills

feeling

?

development; (b) hazard identification exercises; (c) risk assessments; (d) reporting, investigating and reviewing incidents; (e) reviews of rules and procedures; (f) employee development of toolbox talks; (g) mentoring new hires; (h) pro-active involvement in behaviour-based safety processes; and (i) seeking people's views on improving safety.

Handwritten: All traditional safety!

3 Summary

Handwritten: constructed by socialistic?

'Safety culture' is a social construct ~~used~~ by industry and academe to describe the way that safety is being managed in organisations to avoid catastrophes and personal injuries. As well as being used to save lives and prevent process safety disasters, it is known that operational and safety excellence go hand-in-hand; companies that are good at managing safety also manage operations well (Fernández-Muñiz, Montes-Peón, & Vázquez-Ordás, 2009; Veltri, Pagel, Behm, & Das, 2007).

In terms of safety culture theory, almost all of those attempting to define the safety culture construct agree that it reflects a proactive stance to improving occupational safety, and the way people think and/or behave in relation to safety. As such, these should be treated by industry as the key underlying factors that guide their improvement efforts.

A major review of the evidence (Cooper, 2016a) showed: (a) there is ~~no~~ consensus between academe and the results of public enquiries about the main safety culture characteristics a company should target to improve its organisational safety culture; (b) the sole use of psychological safety surveys to assess a company's safety culture is fatally flawed as they are not reliably linked to actual safety performance; (c) common significant safety issues to avoid process safety disasters and SIFs are well known, and provide a tangible and robust focus for assessing the safety culture construct; (d) organisations should concentrate 80% or more of their safety culture improvement efforts on situational and behavioural (e.g. managerial safety related leadership behaviours) factors to prevent process safety and SIF incidents; and (e) the safety culture product should be used to assess safety cultures, the results of which can be used to determine a company's safety culture maturity. Companies should develop leading ~~PIs~~ that focus on what people do, to facilitate the monitoring of ~~that~~ observable degree of effort...".

In terms of safety culture practice, evidence shows that: (a) senior executives have to consider the safety element in all their decisions to guide and impact other's decision-making and actions to prevent disasters and personal injuries; (b) the quality of safety leadership at the local level to ensure risk management initiatives are implemented effectively tends to override national culture considerations; (c) every organisation will have sub-safety cultures, and adopting a 'pull and push' approach where a corporate framework is provided that can be tailored and implemented to suit local conditions, is the best way forward; (d) different policies and tools are needed to address minor, major, and catastrophic events; and

Handwritten: based on trad safety

Handwritten: OMG such limiting assessment

Handwritten: research BBS

Handwritten: OMG - many measurable indicators

Handwritten: the crux of Cooper repeated so often

(e) creating a safety partnership that fully involves both management and employees in the safety improvement effort is the best way for an organisation's safety culture to evolve and achieve excellence.

All spin + goop.

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