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[FEATURE ARTICLE-123] Hard or soft? The relationship between power and organisational incident rates

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Abstract

This paper examines the power that managers have to impact on workplace safety and how in mixed method studies our preconceptions about the hardness and softness of the relevant data may be misplaced. The civil construction industry (CCI) in WA provides the case for this discussion. Workers in this industry are constantly battling between safety compliance and production pressures in an era of economic boom. The examination of 3,882 incident reports, upon which this paper's conclusions are drawn, revealed that these "hard" data may often obscure incidents that occur as organisations may be pressured into providing reportable incident figures that make them appear safer than they really are. Torn between the conflicting responsibilities of ensuring safety compliance and simultaneously progressing work, managers may manipulate safety data and provide conflicting safety signals to their staff when their words appear to be contradicted by their actions. This research found that, due to deliberate or careless misrecording of data, the seemingly hard evidence of safety data was often a rather soft representation of the reality. Conversely, the research found that the softer evidence consisting of manager perceptions revealed how hard and instrumental management voices and actions can be in shaping workplace safety culture.

Keywords: managerial power, incident data, safety, organisational culture, mixed method study.

Introduction

Increasing social expectations and individual aspirations tend to emphasise personal wellbeing in the workplace. However, while managers might seek to improve social cohesion within their workplace, their primary responsibility is to ensure that each individual who arrives at work returns home safe and well at the end of their shift. Within Australia the construction industry has the fourth highest incident rate and the third highest injury rate per 1,000 employees¹. Within the construction sector the CCI has the highest incident rate² (see Table 1). Incident rates in this industry sector tend to increase when demand for infrastructure development is high.

Table 1: "Civil building construction" LTI/Ds 1-plus days lost per 1000 employees

<i>Financial Year</i>	<i>Residential Building Construction</i>	<i>Road & Bridge Construction</i>	<i>Total</i>
2004–05	31	115	146
2005–06	34	152	186
2006–07	64	177	241
2007–08	51	152	203
2008–09 ^{p3}	58	159	217
Total	238	755	993
5-yr Avg	47.6	151	198.6

Source: WorkSafe WA, December 2011

For this paper we define incidents as events that have resulted in personal injury or damage to equipment, but which may not have been recorded as accidents that are reported to the regulatory authority. In this mixed method study, we define “hard data” as numbers of accidents reported to the regulatory authority. However, we will explain how the recording of such incidents and events may be manipulated to suit an organisation’s agenda and can be far “softer” than they appear. In terms of the qualitative data collection, we approached the collection of manager perceptions from the workplace as “softer” data, recognising that there would be multiple interpretations of managers’ actions and discourses. However, our study reveals how instrumental the routine daily actions of managers in the workplace can be in shaping safety culture.

Background

Each year in Australia approximately 60 construction workers die from fatal injuries at work and another 25 of every 1,000 construction workers are injured at work and receive workers compensation for their injuries^{4, 5, 6, 7}. This is a cost to the Australian economy each year of 5% of the gross domestic product or AUD34.4bn and leads to an additional estimated cost of pain and suffering to those affected each year of AUD48.3bn⁸. Employers incur about 30% of this total cost, with the rest being borne by injured employees, their families, and the community⁹. Tradespersons and labourers accounted for 47.6% of all non-mining work-related fatalities¹⁰. In 2004–05 just under 50% of recorded fatalities were attributed to the operation of mobile plant and transport¹⁰. These figures are particularly relevant to this study as the CCI comprises a high percentage of labourers and tradespersons operating mobile plant and transport.

Safety culture/climate

In the literature “safety culture” and “safety climate” are interchangeable terms. For organisations a well developed safety culture is generally associated with lower workplace injury, incident and fatality rates compared with organisations with less well developed safety culture¹¹. The first focus of this paper is on safety culture as a management tool to encourage robust workplace values¹² and second, to analyse employees’ perceptions of their organisation’s safety culture^{13, 14, 15, 16, 17}. We argue that employees’ perceptions and behaviours in the workplace are directly influenced by management values and behaviours when promoting workplace safety. Studies have shown that risk is integral to determining management commitment to safety and employee perceptions of safety culture^{18, 19}. Cooper found that safety systems also play a part in forming an organisation’s safety culture²⁰. On this issue, Fernández-Muñiz et al. (p. 628) stated that:

“A committed manager who is personally involved in safety activities and who takes an interest in working conditions conveys to the employees a sense of the importance of safety for the organization.”²¹

These authors indicated that, with such management commitment, employees will comply with regulations and take the appropriate safety measures within their organisations. In their study of 239 participants working in diverse hazardous conditions, McLain and Jarrell²² found that pressure to work safely was positively associated with safe work behaviour. However, we argue that employees may indeed act otherwise where management instructions are not supported by management actions. Employee perceptions of the compatibility of management's safety and their production expectations may affect safety performance²². Pressure to place production over working safely, risk-taking and incident "cover ups" were themes uncovered in our study of the CCI.

Managerial power

Buchanan and Badham (p. 610) defined organisational power as the 'capacity of individuals to exert their will over others'²³. Managers have the power to influence safe work practices. Brooks maintained that communication is a weapon²⁴, while Buchanan and Badham (p. 610) stated that "organisational politics is often equated with the devious, the underhand, the cunning, and the manipulative"²³. However, Greiner and Schein argued that there are both positive and negative uses of power within organisations²⁵. Managers supply information through various forms of communication and this is a key strategy used by them to both reward and punish employees in relation to safe working practices²⁴. Argyris noted that managers are instrumental in providing knowledge that enabled their employees to make free and informed choices²⁶.

From a broader conceptual perspective, organisational safety competes for legitimate resources²⁷, to be institutionalised as a structural component and a cultural norm, through discourse and negotiation. Power is mutually vested in the institution or individual, but the organisational structures of control have a transformative capacity over organisational actors through the allocation of resources²⁷, such as the allocation of time and funding allowed for the robust safety practices on the work site. Organisational actors draw upon rules and normative practices that govern safety compliance in the form of legitimisation and sanctions; these being the legislative requirements for minimal safe practice and the informal and formal practices displayed within each organisation's safety culture.

Safety performance

One measurable method of determining an organisation's safety performance is the recording of work-related injury data. In Australia this is a legal requirement by regulatory bodies such as government workers compensation regulators. Some organisations also conduct their own record keeping on their incidents and near misses. However, Cooper and Phillips (1994) reported that the measurement of safety performance using objective injury data is problematic²⁸. Glendon and Litherland maintained that incident data are dubious in accuracy, insufficiently sensitive, can only be viewed retrospectively, and ignore risk exposure¹⁷. De Joy, Schaffer, Wilson, Vandenberg and Butts and Håvold also hold the view that incident data can be very unstable in nature^{29, 30}. Fernández-Muñiz et al. found that accident rates can be reduced for a number of reasons that may have little to do with the safety culture, such as not declaring incidents due to incentive schemes that encourage employees not to make reports²¹. Håvold went further, maintaining that accident data are not very reliable since many individuals and organisations fail to report such occurrences; staff may be reticent about reporting accidents, and in particular, an accident-free period can suppress accident reporting³⁰.

Managers may be rewarded for manipulating recordable incident data because in times of poor safety performance, for an organisation to be labelled as "unsafe" can result in increased regulatory and economic burdens. Dalton argued that managers are encouraged to bend rules such as losing data when negative results will harm the organisation, manipulating accounts, and not recording incidents and accidents to improve the company's safety record³¹. However, the practice of bending, breaking, ignoring and selectively

applying rules and processes in the interests of production is not new^{32, 33}. Dalton found that managers regularly work on two levels: one that is recorded — the public face, and one that is hidden or submerged — the private face³¹.

Method

This study was a mixed method, inductive, interpretive field study that gathered both detailed incident statistics (near miss, damage only, first aid treatment injuries, lost time injuries, and reportable injuries) and semi-structured interviews. While the study broadly investigated the relations between organisational values and OHS practices in the industry, the research questions focused specifically on the incidents that occurred, the OHS values and practice that were in place, and how relations between managers and workers shaped the safety culture. The data analysis was based on both statistical interpretation and on a grounded theory approach to generate key conceptual relationships that shaped the workplace safety culture by abstracting from multiple cases the experiences and perceptions of the participants relating to workplace safety³⁴. The researchers worked closely with industry parties, assuming an inductive approach to enable the results and findings to be grounded in that empirical world³⁵. Fieldwork focused on perceptions and experiences of managers and employees to describe their values relating to safety issues. The data collected were conceptualised and reduced according to Strauss and Corbin (p. 12), “elaborating categories in terms of their properties and dimensions, and relating through a series of prepositional statements” or coding³⁶. This allowed for the emergence of sensitising concepts from individual case studies within data³⁷, thereby alerting the researchers to possible avenues for further investigation. The individual case study issues were compared, so that theory could grow out of these data, but were also grounded in the data³⁸.

This study comprised a two-phase investigation into safety compliance in the CCI in Western Australia. The first phase collected 3,882 incident reports for the years 2001–06 inclusive from 24 CCI organisations that employed a total of 4,948 staff. The justification for collecting actual incident reports rather than relying on workers compensation data compiled by Worksafe WA was that incident reports should contain the “hard” facts of each event; whereas workers compensation statistics record only the required reportable lost time injury data. Organisations seeking to achieve better recorded safety data have been known to assign light duties for injured employees to avoid them taking leave. In the event that an injury is not so severe that the worker is immobilised, managers have the power to influence statistical data to the advantage of the business in that they don’t record a lost time injury but rather return the employee to work on light duties if an injury occurs. Managers may view positively returning an injured worker to work on light duties because it maintains the employee in the working environment, it continues their routine, and the injury does not become a recorded incident. The incident data analysis indicated that organisation size had an effect on the number of workplace incidents. The data indicated that the smaller the business the more likely was it that an incident would occur. Small businesses employing less than 50 staff were 56% more likely to record an incident than were large-sized businesses. A discussion of these findings has been published elsewhere³⁹.

The second phase of the study consisted of 39 interviews with CEOs, OH&S managers, supervisors and injured employees working in the CCI in WA in businesses large⁴⁰ to micro⁴¹ in size. A further 11 interviews were conducted with supporting and legislative bodies such as WorkSafe WA⁴², insurance companies and Registered Training Organisations (RTOs). The data revealed that the incident data provided by the organisations sampled in phase one was incomplete. Managers can either withhold or limit the flow of information about hazards and incidents in an attempt to place production before safety. This is at odds with Nord’s⁴³ view of developing the “right culture” within an organisation where employees are able to exercise control over events that affect them. With the managerial power afforded to them to determine the incident data that are officially recorded, we maintain that the reporting of incidents to regulatory bodies such as Worksafe WA and within an organisation may not be an accurate record or true account of an organisation’s safety practices. Therefore these “hard” statistical data are indeed incomplete or “soft”. This phase of the data collection also found that the level of safety in the CCI organisations was directly affected

by the embedded value that managers placed upon safety when confronted with production pressures. More detailed discussion of these findings has been published elsewhere⁴⁴

Results

Managers within the CCI have the power to create culture change through rewards and sanctions. But their desired safety culture within the industry is tempered by management's own value conflicts, when safety and production imperatives collide in the workplace⁴⁵. We draw upon the qualitative data to provide examples of how managerial power has led to the creation of the safety culture within the CCI. The quotes provided are merely some examples of the numerous data collected for the study and are by no means exhaustive.

The CCI may appear safer than it actually is, by *displaying annual incident data that are low in occurrence and minor in injury* (manager large business). The under-reporting of incidents may occur for a number of reasons including: the *impact on insurance premium costs* (manager medium business), *the detriment to winning work by tender* (manager small business), and *the time taken to investigate reported incidents* (manager medium business) that large numbers of incidents can produce.

The acceptance of minor indiscretions and breaches in safety procedures may create an eroded safety culture. Berger (p. 41) stated that:

"...the toleration of small daily risks is where there is a lot of room for improvement."⁴⁶

Evidence from data collected in this study supported Berger's statement:

"So I think managers get what they ask for. And as long as the manager's behaviours match what he's asking for he'll get them both." (manager large business).

Although the CCI is under pressure to produce at an accelerated rate and often accepts small breaches in safety procedures, this study found some evidence that some in the industry wished to change their cultural practices:

"So there's that dual process and where it's going to lead to is the behavioural change because we want it sort of best practice where people will do it naturally it's like a habit as opposed to, 'Oh there's paperwork, God damn', or 'I have to find that project engineer', or 'I have to report that hazard'." (manager medium sized business).

This study found that the incident reports obtained in the quantitative data collection were not quite as hard as they may claim to be. This research provides evidence that as a term, the descriptor "hard data" is rather erroneous, as all data are subject to human error or deliberate decisions. This study revealed that the hard data were particularly soft as data manipulation was both through the covert action of managers and also through the simple misrecording of data due to inexperience or carelessness in a complex work environment. Interviews with managers in the CCI indicated that correct recording of incidents was influenced by the pressures on the person making the physical recording. Table 2 illustrates the various ways in which an incident may be recorded and the influence that workplace power may have on the recorded result. These examples were gathered throughout the second phase of the study and revealed in the interviews with managers. The first scenario is that the employee may be coerced to report an incident incorrectly. For example in the case of a lost time injury (LTI) this may be encouraged to be covered up and recorded as a medically treated injury (MTI) or as an employee on light duties in order to avoid an insurance claim.

A second scenario apparent in the workplace concerns employees who perform a "good turn" for their boss by recording an incident incorrectly in order to help the company in that an insurance claim is not made. A third scenario is correct recording of the incident. The fourth scenario is incorrect recording due to the process not warranting serious attention. A serious incident resulting in damage to plant requires

considerable paperwork and investigation by the designated safety professional, insurance companies and possibly WorkSafe WA. The employee may choose to record the incident as a minor one to avoid the extra workload. The fifth scenario is simple carelessness or human error in that during the recording of the incident perhaps the wrong box was checked on the incident form. A sixth scenario is the nil recording of the event where the incident is hidden. It is evident that this seemingly hard data upon examination appears increasingly soft.

Table 2: Six types of misreporting/recording of incidents

Description of motivation	Extended/illustrated description
Coerced	"My Boss tells me"
Good Turn	"This will help my boss"
Correct Recording	All paperwork completed accurately
Laziness	"This will make my job easier"
Human Error	Carelessness, lack of time, inexperience, etc
Nil Recording	Hidden event

Companies provide statistical evidence of their lost time injury frequency rates (LTIFRs) when renewing their yearly insurance premiums. With the preceding scenarios of incident recording, statistical recording of events is fraught with inaccuracies. Of the 3,882 formal incident reports collected from the sample organisations we found that 42 contained examples of human error as evidenced by corrections made on the reports at a later date. Although not a large number of incorrect recordings, it does indicate that the belief about accurate reporting of incidents is problematic. Given these errors occurred in the reports that were actually completed, we argue that other incidents simply go unreported in the CCI.

The second phase of the data collection gathered the perceptions of managers and employees within the industry. Our expectation was that we would gather evidence of the impact of safety training initiatives and workplace practices that would form a complex set of relations that continually shaped and reshaped the safety culture of the workplace. While we did indeed uncover a complex web of relations influencing safety in the workplace, one issue emerged strongly from the data. Despite the repetition of safety regulation and guidelines underpinning training and formal management meetings, the strongest and most enduring impact on the safety culture was the daily behaviour of managers in the workplace. Their workplace instructions and actions were continually seen, read, and digested by their staff and were instrumental in shaping the safety culture. Despite all the formal safety instruction, it was the often unconscious and practical behaviours of managers that set the standards. From our seemingly soft qualitative data emerged a hard fact about how the safety culture was being formed.

Discussion and Conclusion

The particular contribution of this study is to illustrate the instrumental role of managers in safety compliance as they try to resolve tensions generated by two vital goals: safety and production. Although Reason argued that safety and production were not competing factors in the safety culture within organisations in the long-term⁴⁷ based on the results of this research we argue to the contrary. The study, conducted in the WA CCI 2005–08, specifically indicates how the formation of safe practice, and indeed unsafe practice, is determined both by the relative weight that managers place upon values of good safety practice when these conflict with production pressures. Managers may often be torn between these two competing demands. The results of these tensions are evident in the way that managerial power is used to determine the level of safe practice within the industry. The ostensibly hard incident statistics seem to be shaped by managerial actions to make them appear the way they would like them to be.

Underpinning the hard statistics is a web of human decision-making. Managers misrecord, fail to record, and wrongly categorise incidents, sometimes unintentionally, and sometimes to generate what they believe to be the required profile for their organisation. In effect, the data derived from this study indicated that the hard face of the statistics obscured the reality that they are socially constructed and rely upon sometimes erroneous human decision-making. The hard data are in effect quite soft. They are produced as a definitive record of selected organisational outcomes and yet they are often an incomplete account, produced

by people to create a required picture of organisational “reality”. Thus, from the web of seemingly soft qualitative data emerged what appears to be hard evidence about safety culture: that managers’ actions are instrumental in shaping safety culture.

This study indicates that managers and researchers would be well advised not to take hard statistical data at face value and to recognise that such data may be produced by hard-pressed managers in the field, sometimes carelessly and sometimes influenced misguidedly by what they believe their organisation would like to see. In addition, the hard rhetoric of safety instructions is often at odds with the softer expedient actions of managers faced with workplace dilemmas and often produces confusing signals for the organisation’s safety culture. Irrespective of the many words to the contrary on posters, in guidelines, and in statutes, managers’ instructions and short-term actions are instrumental in setting the standards and norms within a workplace. In these ways, managerial power flows through the workplace to construct safe and unsafe practices. Recognising these tensions places managers in a stronger position to develop more sustainable cultures that include strong and embedded values towards safety.

The values in action within an organisation are continually the result of the interaction between management values dispersed throughout the organisation, the safety culture as it is acted out in the workplace, the power relationships, the formal training that employees receive, and how these values influence the employee’s decision-making when faced with an unsafe situation. Some companies in the industry are making efforts to improve their safety culture and are injecting both time and money into facilitating a change. They have a supportive and paternalistic attitude, and rather than looking for an environment of compliance to enact change, they would like the change to be inclusively industry-driven. However, the CCI has numerous examples of businesses:

- with limited OHS policies and procedures
- under pressure to produce at a rapid pace
- facing external pressures such as tendering at the lowest price and legislation compliance
- constrained by labour shortages
- negotiating relationships between contractors and subcontractors
- incurring a limited uptake of training, and
- with limited overall value placed on safety.

The data indicated that there appears to be conflict between substantive actions producing safety and the more symbolic illusions of safety compliance.

Few areas of research focus on issues as important as death in the workplace. Yet as this study indicates, underpinning these stark hard outcomes of production lies a perplexing web of managerial action and power relations, as managers seek to negotiate production pressures while promoting a safe workplace culture.

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Footnotes

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