



# An ethnography of the safety professional's dilemma: Safety work or the safety of work?



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## ABSTRACT

The safety profession has grown and evolved over recent decades, and despite the prominence of the role within organisations, there is limited research about the current state of safety professional practice. The objective of a safety professional's role is often stated as 'preventing incidents and harm to people', although the existing research fails to demonstrate a compelling link between safety professional practice and worker safety. More recently, a model of safety work in organisations proposed that safety activities fulfill broader social and political needs, in addition to the physical reduction of safety risk. In this paper, we report a study that investigated the underlying objectives of individual safety professional tasks, then performed thematic analysis to explore the contemporary role of safety professionals in organisations. 12 mid-level and senior-level safety professionals were interviewed at monthly intervals for six months regarding their work activities, in addition to an embedded researcher performing more than 240 h of field observations. Four categories of safety work in organisations – demonstrated, social, administrative, and physical – were used as priori themes to deductively analyze the data. The findings demonstrate strength of alignment between the safety professional role and line management, the increasing institutionalization of safety professional work, an absence of safety professional work directed at reducing safety risks to workers, and the lack of a clear connection between safety professional practice and safety science research.

## 1. Introduction

The role of a safety professional is to assist their organisations with the 'management of safety', but what does this entail in practice? Is it to reduce the risk of injuries to workers, or are there other organisational needs that are met by the safety professional role? [Borys \(2015\)](#) conducted a literature review on the relationship between the presence of safety professionals in organisations and company safety performance measured through injury or fatality rates and only two studies have demonstrated a reliable correlation. An important question, given this finding is, what activities are safety professionals performing, and why? More specifically, what are the underlying purposes driving safety professional practice?

In this paper, we explore the objectives of individual safety professional activities, and the role of safety professionals more broadly within organisations through the application of a model of safety work. [Rae and Provan \(2019\)](#) developed a model of safety work based on the theory of institutional work that describes four underlying purposes of safety work in organisations. This study aims to test and extend this theory of safety work through applying the model to the data obtained

through an extensive 6-month ethnography of safety professional practice.

This study explores the following two research questions:

- RQ1: What are the objectives of safety professional work activities?  
RQ2: What is the role of a safety professional within organisations?

### 1.1. Safety professional practice

[Hale \(1995\)](#) first described in detail the challenges of safety professional practice within organisations and the roles that they adopted in response. While there are numerous studies concerning the tasks and education of safety professionals ([Nedved and Booth, 1982](#); [Dejoy, 1991](#); [Brun and Loiselle, 2002](#); [Blair, 2004](#); [Hale and Bianchi et al., 2005](#); [Hale and Guldenmund, 2006](#); [Wu, 2011](#); [Changa and Chen et al., 2012](#)), and commentary on how they exert influence in organisations (e.g. [Hasle and Sørensen, 2011](#); [Olsen, 2012](#); [Daudigeos, 2013](#); [Almklov and Rosness et al., 2014](#)), none of these report detailed findings on why they are performing those particular activities ([Provan and Dekker et al., 2017](#)).

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Over recent years the International Network of Safety and Health Practitioner Organisations (INSPHO) has undertaken considerable activity to define, standardize, and accredit safety professionals (Pryor and Hale et al., 2015). More recently, Provan and Dekker et al. (2018) conducted a case study into the professional identity of safety professionals, explaining how they think about, and relate to safety and their role within organisations. Missing from the existing literature is an understanding of the objectives of safety professional work within organisations, the ‘why’ of safety work. The currently generally accepted justification for safety professional practice, ‘to ensure the health and safety of workers’ is empirically untested.

1.2. Safety work

The institutional work literature argues that safety professionals can be described as ‘actors engaged in a purposeful effort’ (Phillips and Lawrence, 2012) to ‘create, maintain, disrupt aspects of their organisation to improve safety. This effort by the safety profession has largely translated into increasing volumes of safety work (Rae and Provan, 2019), a trend more broadly identified within the institutional work literature as the growth of peripheral work (Lawrence, Leca et al., 2013). Rae and Provan (2019) propose that safety work serves multiple organisational purposes in addition to reducing the physical risk of injury to workers, and can be categorised into four discrete types of work: demonstrated safety, social safety, administrative safety, and physical safety. Each of these types of safety work, may, or may not directly or indirectly contribute to the safety of operational work.

Rae and Provan (2019) define the four types of safety work as follows (see Fig. 1):

- (1) Demonstrated safety work – Satisfying stakeholder demands for safety
- (2) Social safety work – Re-enforcing our commitment to safety
- (3) Administrative safety work – Complying with safety requirements
- (4) Physical safety work – changing the work environment for safety

2. Methodology

2.1. Participants

The participants in this study were 12 mid-level and senior-level safety professionals. These nested case study (Yin, 2017) participants were currently performing a diverse mix of dedicated generalist and technical specialist safety roles within a single large Australian organisation. All of the roles presently performed by the participants are classified as OHS Professional Level 2 and Level 3 positions (INSHPO, 2017). Eleven participants were male, and 1 participant was female. Participants had worked in full-time safety professional roles for between 2 and 20 years with an average of 12 years of experience. Eight of the 12 participants had tertiary safety qualifications. Each of the 12 participants took part in a semi-structured interview completed by the first author and repeated at monthly intervals for 6-months between February and July 2017. A total of 69 interviews were conducted.

2.2. Data collection

A longitudinal ethnographic research design gave the researchers the opportunity to understand the variation in individual work activities, what purposes they satisfied over time, and how events that occurred inside and outside of the organisation influenced their work. The

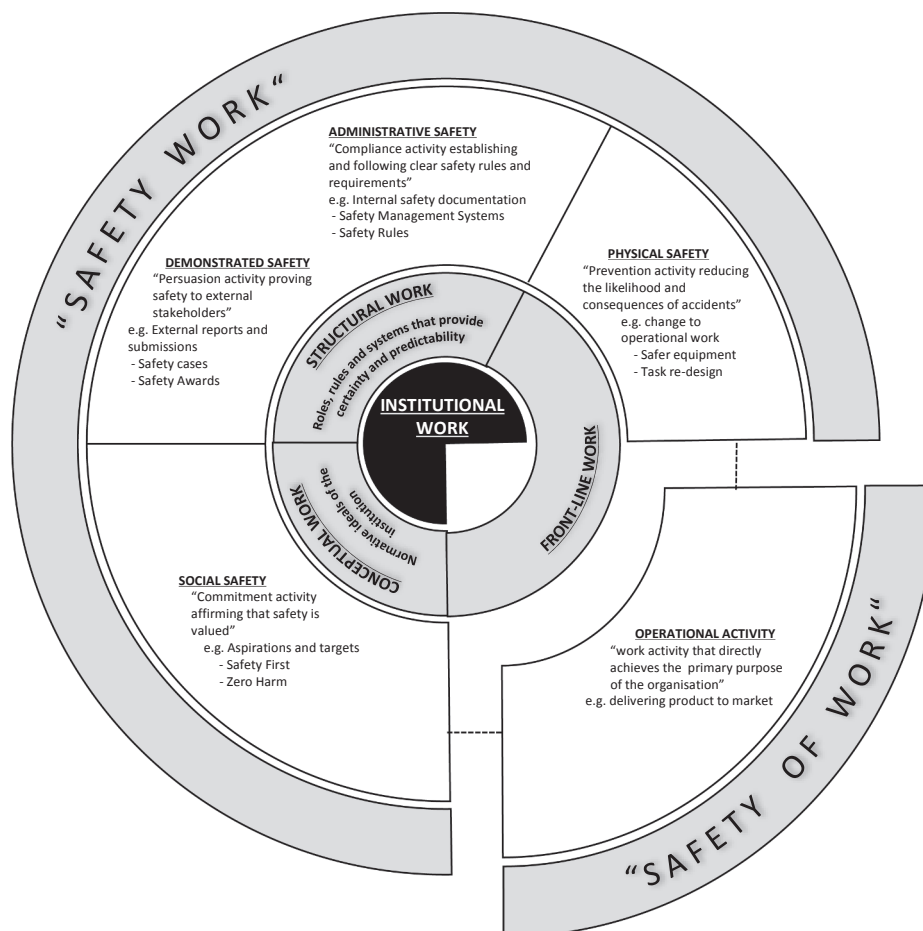


Fig. 1. Safety work versus the safety of work (Rae and Provan 2019).

sampling method enabled the research team to match the safety professionals accounts of their work with independent observations of the organisation.

The individual narratives that legitimize safety professional work to themselves can be both conscious as well as unconscious. Rather than directly questioning how safety professionals legitimize their work activities, in each interview, participants were asked to describe examples of their current work activities guided by the following prompts:

*Describe the work activity*

*Describe why you are performing the work*

*Describe the outcome you are trying to achieve*

*Describe how you are undertaking the work*

The above questions enabled the collection of data about the: ‘what, who, and how’ of safety professional work, which is important when examining practices in organisations (Jarzabkowski and Kaplan et al., 2016). Specifically, data was collected on the purpose of each work activity through understanding its: initiation, objective, and context (i.e., questions 2 and 3 above asking, ‘why?’ and ‘what for?’). A total of 69 (15–30 min) interviews were conducted, and each one was audio-recorded, transcribed, and analyzed using the NVivo software package.

Ethnographic field observations made by a member of the research team supplemented the interview data. Field data about the context surrounding the specific work activities discussed with the participants was gathered over more than 240 h.

### 2.3. Analysis

Seven interviews were excluded from the data-set as they did not meet the criteria of ‘safety professional work’, in that the work was not being performed for the purpose of safety. Some of the reasons for excluding such examples were: general administrative tasks, duplicate work activities that spanned several months, management tasks (i.e., recruitment), and role transition tasks. A total of 62 interviews were analysed.

To investigate RQ1, we performed a template analysis (King, 2012) to identify the underlying purpose of each safety professional work activity. This template analysis was performed on each interview transcript and supplemented with field data. We started with four predetermined priori codes relating to each of the categories in the Safety Work theory (see Table 1).

The ethnographic research method enabled the classification to be made based on the purpose of the activity. As described by Rae and Provan (2019) an individual task could be performed for any of the four reasons in Table 1. One example of this is the activity ‘develop contractor safety improvement plan’. Through this research, we aimed to understand how safety professional work gets, initiated, created, prioritized and legitimized – ultimately its purpose.

A thematic analysis of the safety professional work activities was performed on each of the four categories of work. This analysis enabled the development of a non-exhaustive set of sub-purpose categories within the safety work model.

**Table 1**

Priori themes derived from ‘safety work’ theory.

Category	Description	Objective
Demonstrated	Satisfying stakeholder demands for safety	Performing safety work to satisfy the requests of internal and external stakeholders: e.g., regulators, senior management, etc.
Social	Re-enforcing our commitment to safety	Performing safety work to communicate and promote safety messages, and create the general feeling that safety is important.
Administrative	Complying with safety requirements	Performing safety work because it is an administrative requirement of the system or to create evidence that something was done.
Physical	Improving the safety of physical work	Performing safety work that directly changes the physical work process or equipment used to perform core operational activity.

Whereas RQ1 used a priori codes and deductive analysis, RQ2 was investigated using open coding and inductive analysis. We looked for themes that – beyond the RQ1 classifications – explained how participants made sense of their organisational role. After establishing initial themes, we searched the data for deviant cases – instances of work activity that contradicted the themes, and unexplained cases – instances of work activity that did not match any of the themes.

### 2.4. Limitations

The participants were all presently working for a single organisation. This sampling strategy was deliberately designed so that the researcher could isolate inter-company variables concerning safety professional work. The case study approach enabled extensive field observation, to establish the specific context that the examples of safety professional work were situated within.

## 3. Results

### RQ1: What are the objectives of safety professional work activities?

The individual examples of work discussed during the interviews were identified and chosen for discussion by participants. The intention was not to elicit a comprehensive inventory of tasks and time allocation, instead to deeply understand what was in the front of their mind. The theory of safety work was useful for interpreting and explaining the varied and complex nature of the activities of safety professionals, who ostensibly perform safety work every day. The safety work categories illustrate the drivers and legitimisation of safety professional practice within an organisation. The following sections, and Tables 2–5 outline each case: title, purpose, and themes from the analysis, classified into the categories of safety work. The classification is based on the described objective and purpose of the work by each participant, and the field observations of the work.

#### 3.1. Demonstrated safety work

Demonstrated safety work is performed for the purpose of demonstrating that safety is being appropriately and adequately managed, therefore organisations preserve the right to continue operations. Demonstrated safety work is specifically shaped towards demonstrating safety to the stakeholders that can influence the rights, processes or even continuation of the company’s activities. Demonstrated safety activities are directed up the organisational hierarchy, and outside the company: contractors to the client, junior managers to senior managers, senior managers to Boards, and companies to regulators and communities. Table 2 outlines the specific cases of demonstrated safety professional work described by participants during interviews and the resulting themes.

Demonstrated safety work is extremely political, and therefore safety professionals spend considerable time navigating the people and processes involved in demonstrated safety work. In large organisations,

**Table 2**  
Demonstrated Safety Professional Work.

No.	Title	Purpose	Theme
1	Prepare Board report	Presenting safety performance to the Board for the purpose of demonstrating that management of the company is managing safety.	Managing the safety message up the hierarchy within the company.
2	Prepare incident presentation	Preparing an incident overview presentation for the purpose of enabling a line manager to present the details of a significant incident to senior management. The presentation demonstrates that safety was appropriately managed before, and in response to the incident occurring.	
3	Prepare risk review for Board	Preparing and presenting an overview of a major accident event risk to the Board to demonstrate that existing risk controls were adequate and effective.	Obtaining company or regulatory approvals
4	Due Diligence for company transaction	Reporting on the safety due diligence for a planned company transaction to demonstrate how the risks were managed by the existing process	
5	Prepare safety case	Preparing and review the safety case for compliance with the regulatory approval assessment criteria.	
6	Develop obligation register	Developing a business unit safety compliance obligation register to efficiently and comprehensively demonstrate compliance with external safety obligations to internal corporate departments and regulators.	Implementing processes to adequately demonstrate safety compliance or non-compliance
7	Review implementation of safety system	Reviewing the implementation of the safety system to proactively demonstrate the level of compliance to senior management and the Board and apportion the cause of non-compliance to others.	Preventing safety events disrupting the continuing of core operations
8	Develop contractor improvement plan	Developing a 12-month safety improvement plan due to an individual contractor having had a number of recent incidents. The availability of an improvement plan allows the company to continue using the services of the contractor, in spite of the poor safety performance.	
9	Review a serious incident response of a contractor	Preparing information that a contractor had taken appropriate action in response to a serious incident and that it was appropriate for the company to continue working with them.	

intra-company demonstrated safety increasingly consumes significant effort to ‘manage the message’. Demonstrated safety work often looks and feels different for the different participants in the activity. Despite the best intentions of regulators, boards and senior management, demonstrated work gets corrupted due to the inevitable: distance between the demonstrated safety work and safety as practiced, the power imbalance between participants, the over-riding assumption that success in the activity is ‘proving’ safety, as well as individual job security and career development drivers.

Senior leaders question the priority and approach to safety of the managers further down the line. In senior roles, away from the day-to-day complexity of running operations, safety decisions seem easy and clear to make, so a judgment for poor safety outcomes can follow quickly.

“Safety leadership isn’t actually the issue, safety management is. The leadership level will not have to be in the detail, so will spruik innovation, safety first and these really large and glorious statements. But its managers who are coping with the goal conflict and the budgets and the change fatigue and everything else”

In one example, line managers were required to present to a panel of senior managers if they had a serious safety incident within their business area. Safety professionals spend considerable time supporting and preparing managers for this presentation.

“We look at failure as a personal criticism rather than as an opportunity to learn and do something better ... people are afraid of airing their dirty laundry ... the punitive mindset around safety has permeated to all people at all levels”

Further up the chain of command, senior managers have the same experience of presenting the company’s safety performance to the Board. The safety professional in this instance has to support the creation of ‘nothing to see here’, or ‘we have things under control’ narratives on behalf of senior management. To achieve this messaging, significant effort goes into preparing information, particularly when the data suggests safety is not understood, nor in control.

“[the board safety report] will go through 10 to 11 rewrites at the moment, to pitch the right message because you know, how we show it is really important, and at the moment our performance is

not great. So, it’s not the stats; it’s the messaging around the stats.”

Organisations measure safety performance through incident rates and serious safety events, and a significant amount of the intra-company demonstrated safety work relates to the messaging of these performance results. Poor safety performance presents a threat to continuing the core operations of the business. Safety professionals spend considerable time supporting operational management to manage this threat, by explaining and demonstrating that safety is being appropriately prioritized, and performance issues are understood and being addressed. In this instance line managers and safety professionals have an aligned objective, to both appear to be effective at their job – the safety professional for knowing what to do, and the manager for taking action. Contractors often have to demonstrate the effectiveness of their safety management activities and performance to the client who monitors their improvement actions closely.

“So, tracking those actions to completion was really important for us, so we can present that information right across the board ... no-one wants to take a beating. You fight back really good”

Safety professionals administer specific processes to support the development of the information necessary for regulators to authorize approval permits for the company’s activities, e.g. Safety Cases, as well as processes that assist with the efficiency of demonstrating compliance, e.g. Obligations registers. Safety professional work can involve both the preparation and internal review of a company’s safety case documents. In one example, the safety professional had a specific role in independently reviewing the safety case report to confirm that the safety case met the regulatory approval criteria.

“I have to look at the safety case in the context that this is a regulatory document demonstrating to the government how we practice”

In an example relating to compliance registers, the safety professional was investing considerable individual and organisational resources in the development of a comprehensive and efficient process to demonstrate legal compliance. This work was directed by senior management, due to a heightened industry and organisational compliance context.

“There are 1100 line items in here, how do we comply, what system or process do we leverage off, document numbers, documents owners ...”

Safety professionals are involved in numerous company governance processes, including conducting safety due diligence of company changes, which can include company transactions such as acquisitions and divestments. Such decisions are made by the company based on financial and commercial risks and returns, however, it is necessary also to demonstrate the safety of such decisions. These processes assist in retaining the regulatory license to operate as well as meeting the obligations of the company and Board. Undertaking demonstrated safety work during the transaction, helps with the possible need to prove evidence of appropriate actions and decisions in the future. Safety professional work in this instance supports the demonstration of safety compliance to regulators, and the due diligence obligations of company Directors and Officers.

“sustaining compliance through the transition and giving regulators the confidence ... and to protect [the company’s] obligations and the interests of our Directors.”

To expand the support of Directors demonstrating their due diligence, safety professionals support the preparation, presentation, and review of material safety risks. Safety professionals support management to present risk information in a way that demonstrates the adequacy of current management practices. This positive presentation of safety information is driven by a combination of a number of factors, including the desire not to upwardly delegate a safety problem, the desire to retain management control over operational issues, and the need for safety professionals to demonstrate they are doing a good job of overseeing safety risk.

“I don’t think that any of the risk work that supports management is conscious of the complexity of the issue ... it’s a very ineffective tool, a blunt instrument”

Demonstrated safety work is as much, if not more about the protection of the reputation of individuals, teams, and companies as it is about safety. The politics of safety within organisations present personal threats to individual job security and career progress, such that demonstrated safety work can also be undertaken to apportion blame for poor safety performance or non-compliances. For example, when an internal safety department conducts a safety audit of an operational business unit, the purpose of this can be predominately about demonstrating the appropriate performance of the safety team, through reporting the inadequate performance of operations.

### 3.2. Social safety work

Social safety work is performed for the purpose of communicating and re-enforcing the importance of, and the organisational commitment to safety. Social safety work is specifically shaped towards encouraging and motivating all personnel to prioritize safety in their decisions and operational work. Table 3 outlines the specific cases of social safety professional work described by participants during interviews and the resulting themes.

Social safety activity is important for organisations to create the environment where safety is considered, and prioritized in every activity, every day. Creating this ideal environment is an ambitious intention, and due to the social complexity, and contradictions inherent in organisations, this activity can get misconstrued as disingenuous and unsympathetic to reality. Social safety professional work is considerably focused on; generating alignment on future strategy, supporting management to demonstrate their accountability, and generating ownership and commitment to safety from others.

Safety Professionals generate alignment on the importance and future direction for safety. These alignment activities include; safety

strategies, safety improvement plans, and safety improvement programs. The purpose of the safety improvement plans and strategies are as much, if not more, about alignment and priority for safety as they are about their specific content.

“Trying to align the organisation around where we’re going ... We’ve got all levels of the organisation engaged from people at the shop floor right through to the board.”

“[to] get the message out to everybody in the field saying, “Hey everybody this is our 2017 plan, it’s really important”

The reason that such alignment and commitment are important, is that safety professionals are not confident of operationally how to create safety improvement. Shared ownership of the strategy and targets both: acknowledges that safety professionals don’t control the decisions that improve safety, and that safety professionals can’t be held responsible if targets are not achieved.

“we would set a [safety performance] target lower ... it was more just trying to drive an outcome, but we didn’t know how to get there.”

Line managers need to accept and demonstrate their accountability to lead safety in the organisation. Safety professionals often have a clear view themselves of what safety leadership looks like, and they work with line managers to understand and enact these behaviors for them to “exercise their responsibility”.

“I don’t see them pulling for this; it’ll be me having to push ... so that’s my concern at the moment, is that they’re still not, they don’t see [safety] as part of their job.”

Safety professionals find it difficult to influence leaders to perform proactive safety leadership activities, however, when safety performance worsens, or a significant safety event occurs, they find it difficult to contain and steer the resulting reactive leadership safety activities.

“we’ve had a few incidents that’s created almost this storm ... or this front where we’ve got senior managers running around and waving flags, stopping work. The conversations I’ve had with people ... speaking to one individual, they said, “you know, not being insensitive to the situation and scenario but we’re not allowed to do anything, we’ve basically put a halt to operations so that senior management can go around and feel warm and fuzzy that they think they’ve done the right thing.”

Safety professionals aim to help line managers to understand that safety is part of core operations and that safety performance is an emergent property of the organisational system and operational work.

“you don’t have a safety problem, that’s part of the outcome, you’ve actually got an operational problem ... and, if anything, I’m their operations manager”

Safety professionals direct and participate in activities that generate ownership and commitment to safety, and safety improvement from organisational units and contractors. These activities are often dictated and driven by senior management as opposed to being determined by the safety professional.

“we see a number of contractors elsewhere having issues, so that must be the story across everybody. It’s just the senior leadership are worried about contractors ... so then you all need to go and do a heap of work with them”

Safety professionals aim to generate leadership commitment and support for specific safety improvement activities to create the priority and resources necessary for implementation.

“We can [work with] the front line about a [safety improvement], but if it doesn’t have management understanding, then it seems to die on a vine.”



**Table 3**  
Social Safety Professional Work.

No.	Title	Purpose	Theme
10	Develop Safety Strategy	Developing a safety strategy that brings people together around common objectives and safety priorities	Aligning the organisation with a future direction for safety
11	Facilitate Safety Strategy workshops	Facilitating organisation-wide 'alignment' workshops on safety commitment and the safety strategy	
12	Develop annual objectives and targets	Setting the business unit safety priorities, safety objectives and safety performance targets	
13	Safety support for 'business strategy' project	Representing safety as part of the strategic project team so that they can say that safety was involved, even though there is no meaningful role to play	Participating in tokenistic activities so that the people responsible can be seen to be doing the right thing
14	Participate in the review of a safety compliance breach	Participating in a review of a several months old non-compliance, so that the management team can say they have responded and continue to take safety seriously	
15	Implement a 2017 contractor safety improvement plan	Maintaining contractor company commitment and accountability to improving safety	Supporting management's accountability for safety
16	Challenging leadership to improve safety commitment	Questioning and challenging business unit management to be accountable for safety, and to demonstrate their commitment to their workers	
17	Support management response to contractor fatality	Supporting senior management to re-enforce to the organisation their safety commitment following a significant adverse safety event.	
18	Develop leadership improvement program	Helping the leadership team create a program to lead and communicate their safety commitment	
19	Attend field operator safety program	Supporting a program designed to improve frontline commitment and capability for safety	
20	Attend monthly safety review meeting with management	Participating in a meeting to facilitate the alignment of the safety team with the priorities of management	
21	Participate in a contractor safety forum	Aligning and improving contractor company commitment to safety	Generating ownership and commitment to safety from other roles, teams and company's
22	Manage field-based trials of new safety capability	Obtaining management understanding and commitment to support a safety improvement activity	
23	Attend industry learning from safety events forum	Demonstrating and support the collective commitment of the organisation to the improving industry safety performance	
24	Participate in weekly contractor safety review meeting	Maintaining contractor commitment to safety, monitor safety performance and align on common problems	
25	Deliver Safety Presentation to all staff	Delivering a 'safety is our number one priority' general communication to all employees	
26	Spend time in the field building relationships	Spending time to develop trusted and open relationships with site line managers	Building relationships to increase their influence

The emphasis on safety commitment across the organisation through social safety work can create the situation where 'safety' is perceived to need to be involved in everything. Non-operational and lower safety risk parts of the organisation, e.g., finance departments, don't want to be accused of not including safety in their activities and decisions. Therefore, safety professionals become involved in such departments, often in a non-value adding way. Either the safety professional's participation is tokenistic, or they participate by initiating operational safety work in non-operational environments. For example, having finance teams join in toolbox talks, rather than working with the finance team to influence how the budgeting and capital allocation process might contribute to improving the safety of workers.

### 3.3. Administrative safety

Administrative safety work is performed for the purpose of setting and following clear rules and requirements for safety. Administrative safety work is specifically shaped towards requiring all parts of the organisation to participate in defined processes and practices and to comply with defined requirements. Participation in and completion of administrative safety work is often recorded and checked. Table 4 outlines the specific cases of administrative safety professional work described by participants during interviews and the resulting themes.

Administrative safety work occupies a considerable amount of the time and attention of safety professionals. Administrative safety work involves developing and implementing safety processes, performing required safety practices, and monitoring and verifying compliance.

Safety professionals develop safety processes for others in the organisation to implement and follow, which can include developing detailed supplementary documentation and guidance that ensures people can understand and meet what is expected of them. The

objective of company-wide processes is to create standardization in, and oversight of, the approach to safety management.

"no matter where you are in the company you would be using the same or similar sort of tools to do things."

"if you let each asset update their own [risk] register, you end up with seven registers, and very different risk tolerances, different mitigation plans, and nothing will talk to each other"

The company safety requirements and processes create further administrative safety work for safety professionals within operating businesses units, who are required to translate the company requirements into operational safety processes for people further down the line to follow. The objective of implementing these company safety requirements is to ensure and confirm compliance back to the 'company'.

"The key element, I mean, it goes without saying, but naturally compliance."

Safety professionals within the operational business units are aware of the administrative (and non-value adding) impact of implementing company requirements and sometimes provide a shield for operations personnel until they have worked out how to administer the activity efficiently.

"here's another [company] change, it's more documentation ... let us do the back of house work, so you can focus on your day to day work"

"you can also lose track of what the end game is from a risk reduction perspective, so it really just falls down to that ... it's not an attack on them, it's just they [corporate safety professionals] don't live in that space"

**Table 4**  
Administrative Safety Professional Work.

No.	Title	Purpose	Theme
27	Develop new contractor management process	Developing company-wide requirements and procedures for contractor safety management	Develop new processes and requirements for safety
28	Develop safety critical activities and roles requirements	Developing company-wide requirements and processes for the identification and management of safety-critical activities and roles	
29	Develop motor vehicle safety procedures	Consolidating four operational safety procedures into one company-wide process and set of requirements	Implementation and compliance with safety management system requirements and company programs
30	Attend an external meeting of a National Road Safety Forum	Benchmarking the company's standards and processes for safety to review and update company safety requirements	
31	Revision of safety management system	Reviewing the company's safety management system and supporting processes	
32	Develop compliance guidance for safety management system	Developing guidance information to advise operational business units on how to comply with the requirements of the safety management system	
33	Implementation of Safety Management System requirements	Implementing a program to review all company requirements and implement changes to operational procedures to comply	
34	Implementing safety management processes	Implementing changes to company requirements within operational business unit	
35	Revising operational processes to comply with company requirements	Re-writing operational safety management plans to align and comply with changes to company safety management system structure and requirements	
36	Implementing new contractor management requirements	Collating contractor contact details in a database to enable safety communication with all contractors and suppliers.	
37	Implementing safety management processes	Implementing changes to company requirements within the operational business unit	
38	Implement new motor vehicle safety requirements	Implement new processes for motor vehicle safety (training and vehicle specifications) to comply with changes to company safety management system	
39	Develop construction project safety plan	Preparing a plan to comply with legislative requirements for prescribed work – Demolition.	Compliance with legal requirements
40	Review Asset Safety Management Plans (SMP)	Reviewing and updating the site safety management plans to comply with changes to legislation	Perform and facilitate safety practices that are required by company safety management requirements
41	Facilitate safety risk assessment	Facilitating a safety risk assessment to comply with safety requirements, for a decision that has already been made.	
42	Develop Bow-Tie risk assessments	Developing bow-tie risk assessments using existing risk information to comply with safety requirements	
43	Provide safety input into an operational project	Providing safety input to meet the safety requirements for the organisational change project	
44	Lead significant incident investigation	Performing ICAM incident investigation to comply with company requirements due to the incident severity	
45	Participate in health risk assessment workshop	Participate in risk workshop to prepare a generic risk register to comply with safety requirements	
46	Provide safety support for an organisational program	Facilitating safety processes to ensure that the organisational program complied with safety requirements	
47	Provide safety support for maintenance shutdown	Developing processes and documents (plans, risk registers, etc.) to comply with safety requirements	
48	Conduct investigation on hand tool incident	Lead investigation process with the contractor to review work documentation and update the safe work method statement (SWMS), and job safety analysis (JSA)	
49	Review of prequalified contractors	Reviewing and checking the existing register of contractors for documentation and records compliance with the safety management system	
50	Review of safety management plans (SMP)	Performing compliance audits against the site safety management plans	Compile and provide safety reports
51	Perform annual review of safety risk registers	Conducting a desk-top review of the completeness and currency of site safety risk registers	
52	Preparing information and data for an internal safety audit	Coordinating business unit preparation of information and logistics for an upcoming internal corporate safety management system compliance audit	
53	Monitor contractor significant incident investigation	Monitoring a contractor performing a significant incident investigation associated with their activities to ensure it complies with our requirements	
54	Safety performance reporting	Preparing and reviewing safety performance data for submission to the management team	

It is the belief of some safety professionals that the significant volume of administrative safety work does not add to the reduction of safety risk in the business. Instead, they are consumed by work that might not be improving safety, and worse, makes it difficult for them to relate to others in the organisation who might question their activities.

“we'll have a product, and we'll be able to say that we've done something, but we know full well that nothing material will change as a result, because it's not connected [to the operation], it's not understood. People don't know; it won't get followed.”

“after an audit, 2,000 or 3,000 procedures got written. And the majority of people in the business don't even know that those

procedures exist ... the challenge for me is we're trying to put that into a SMP that doesn't just make people just glaze over.”

“they're thinking, “safety is being a pain in the ass, making my life a misery.” I'm like, “It's not my objective. I'm trying to help you guys.” So that's been interesting discussions to have.”

Added to the dilemma facing safety professionals regarding the relationship between administrative safety work and safety risk reduction in the company, is the need for them to perform and support the required safety practices personally. While at times these practices have a direct contribution to reducing safety risk, many times these processes are conducted exclusively for compliance and appearance purposes. For

example, safety professionals are asked to perform risk assessments and investigations to comply with safety requirements when decisions have already been made. Risk assessments are often performed with a pre-determined operational outcome decided.

“And it wasn’t what you’d say like a risk assessment in the traditional sense of we’re considering this idea, do a risk assessment, and then we’ll [make a decision] ... This has been talked about for many months before I was involved. We would have recommended against it”

“at the end of the day it’s all a desktop activity ... the biggest conversation we had was around the potential consequence ... which determines whether things get fed up to senior management and to the board.”

Evidence suggests that voluminous administrative safety work in the field where work is being performed does not contribute to reducing safety risk, as experienced by a safety professional in their findings from an incident investigation.

“We had a robust safety work method statement that identified the [specific] risk, and this gentleman, in this case, read the permit and performed a job safety analysis, but he didn’t read the safe work method statement.”

Safety professionals perform administrative safety work that monitors and verifies compliance with safety management requirements. This assessment and audit activity confirm that the necessary administrative safety work is being performed in the operational business units. These monitoring and verification processes are documented processes looking for evidence of other documented processes.

“Most, we end up getting over that arbitrary line, [but often we say] we need you to write an extra document.”

Safety professionals also perform administrative safety work to prepare other people in the organisation who are required to be part of corporate or external audit processes, which can take considerable time and effort.

“I’m starting to get the site ready for [the audit], it’s in three weeks’ time, so I’ll get down there in the next week and just start helping them get ready ... give the leaders some coaching around what an audit is about which will help them be more relaxed so that they can give the right support to the audit team.”

### 3.4. Physical safety

Physical safety professional work is performed for the purpose of changing the physical conditions of work, i.e., work process, work equipment, work personnel. Physical safety work is specifically shaped towards directly reducing safety risk to people. Table 5 outlines the specific cases of physical safety professional work described by participants during interviews and the resulting themes.

Physical safety work is the most closely linked safety professional work to the reduction of safety risk, i.e., the safety of work. Physical safety work involves changes to the equipment, work process, employee, and, or the resources available for operational safety (time and capital).

Safety professionals find performing physical safety work the most challenging type of safety professional work. Physical safety work intervenes in the tools and tasks of frontline employees. While demonstrated, social and administrative work impose time and resource burden on the organisation because it is performed alongside the core operations, physical safety work changes the core operation. It is somewhat ironic that the type of safety work that impacts safety risk the most directly is the hardest to perform. Physical safety work is hard because stakeholders don’t have an aligned perception of work as done, nor the associated safety risk.

Upgrades and improvement to the equipment and technology involved in the core work activities of the organisation can be identified and managed by safety professionals. Senior management can be challenged by becoming involved in physical safety work as it reveals the gaps in their understanding of operational work practices. This limited operational understanding is relevant in the case of equipment and technology upgrades for safety, as the required capital investment (potentially \$millions) needs senior management approval.

“there is a disconnect between the executive and the frontline management teams ... they understand the headline risks that are associated with [the equipment], but actually how it’s used, and what systems we have in place to mitigate those threats, I think would be lost on them.”

Upgrades to the equipment used by front-line workers for core operational activity requires close collaboration with the users of that technology. Operational work processes can be modified, supplemented or replaced with safer work processes. The effort and difficulty

**Table 5**  
Physical Safety Professional Work.

No.	Title	Purpose	Theme
55	Upgrade offshore helicopter	Manage the procurement and deployment of a new generation helicopter for offshore personnel transport.	Upgrade to work equipment
56	Replace cylinder transport trolley	Facilitating the re-design and introduction of new transport trolleys to move LPG cylinders and reduce manual handling	
57	Implementation of new technology for site inspections	Establishing new capability to conduct field inspections using UAV’s to reduce manned aviation activity	Re-design or substitution of a work activity with a safer process of technology
58	Safety advice for work at heights task	Providing specific advice and direction to re-design work at height task to reduce safety risk	
59	Review and trial of confined space rescue plans	Redesigning the confined space rescue plans for a specific work location and conducting field tests to ensure the plan would work if required	
60	Rapid access physiotherapy program	Implementing early intervention and treatment program for employees performing manually intensive work	Improving the physical capability of employees
61	Contribute safety requirements to plant design	Contributing safety requirements to the design of a new Major Hazard Facility (MHF) so that safety needs are directly considered during design decisions, alongside production and cost	Facilitating production and cost sacrifice judgments for safety
62	Suspend all offshore aviation activities following inspection anomaly	Deciding to ground all offshore aviation activity following a routine inspection anomaly until checks were completed to remove uncertainty regarding the integrity of flight operations	



associated with safety improvements to core operational activities depend on stakeholder beliefs and opinions about the safety risk of the existing process. It is incredibly difficult when safety professionals are the ones suggesting to management and the frontline that work needs to change.

“unless faced with an inordinate amount of data to support your view you would not be successful in introducing a new [core work process]”

Where management or the frontline employees initiate the review and change process in their respective interests, change becomes easier so long as they maintain control over the change decisions.

Safety professionals can make or facilitate the making of sacrifice judgments on behalf of safety. Sacrifice judgments can, and should, be made during standard operational decision-making processes, for example, when designing a new workplace, or preparing a project schedule. However, sacrifice judgments are typically reactive and involve stopping, delaying or suspending core operations due to an unmanaged or uncertain safety risk. This taking of a knowledge based stand within their organisation is a necessary but difficult task for safety professionals.

“I took the step to say that we’ll actually take a pause in operations until we can get a clear understanding of what the potential impact is ... That just put that breathing space between the frontline operations and the people who are actually working on the [issue]”

### 3.5. Testing and expanding the model of safety work

The results of this study provide a non-exhaustive list of sub-categories of the four types of safety work (Rae and Provan, 2019). Table 6 presents the categories and sub-purposes of safety work performed by safety professionals.

The examples of safety professional work described in this study were categorised based on the purpose of the work as described by participants. In complex social systems such as organisations, stakeholders can have different purposes for their involvement in the same work activity. The model of safety work and institutional work more broadly is not sensitive to the contradictory drivers of the same work activity, between in the case of safety work, safety professionals, senior managers, operational managers, and frontline employees. Safety Professionals are often in the middle of “safety work as imagined” and “safety work as done”. For example, in the case of demonstrated safety, the gap between the stated intent of senior management to ‘understand and learn’ and the inferred (felt) intent ‘to accuse and justify’ of the frontline worker, contractor or safety professional.

Safety professionals are performing additional work to their core role of safety work and their general administrative and management

duties. We have labelled these as interpersonal work and line management work.

#### 3.5.1. Interpersonal work

Safety professionals perform significant relational development and social influence work within organisations. Safety professionals need to work within and across the different drivers and perspectives of stakeholders described above. Safety work is always pushing against core operational work, cost and production targets. Safety professionals are constantly attempting to change other’s beliefs, thoughts and actions, of people that they both, don’t know, and from whom they are organisationally distant. Safety Professionals perform considerable activities for the purpose of developing relationships, understanding key stakeholders, and creating personal social standing to generate influence. Safety professionals understand the importance of this work, but its intangibility challenges organisations.

“Checklists are tangible, so maybe there’s a sense that something’s being produced if checklists are being completed. How do I put a value on having 20 conversations across the organisation? There’s no record of that. No one knows that I’ve done that. But I’m spending half my time just fostering those relationships.”

“A week later, a manager may be struggling with something and go, shit, that [safety professional] was a nice guy. I’ll pick up the phone to him. I’ll be able to talk honestly with him, and he’ll give me some thoughts ... when you have the relationship, and you’ve built the rapport. That’s when your technical knowledge becomes handy. Because now you’re a resource to be utilized.”

#### 3.5.2. Line management work

Safety professionals are requested by management to lead and support activities that are not related to safety. These requests are for one of two reasons:

- (1) The safety professional is a discretionary resource that management can assign to non-safety work that needs to get done.
- (2) Management want to implement something that is not-wanted by employees so utilize safety and the safety professional to ‘legitimize’ the change (for example, dress codes, working hours, contracting arrangements, etc.)

This work can be labelled line management work as it is serving the purpose of delivering on management needs, not safety needs. Due to the prevalence of social safety work and the resulting commitment to safety within contemporary organisations, labelling an activity as ‘safety’, provides the work or decision with broad stakeholder legitimization, and is considered ‘not up for debate’.

**Table 6**  
Sub-purposes of Safety Work.

Demonstrated	Social	Administrative	Physical
Managing the safety message through the hierarchy	Aligning the organisation with the safety goals and strategy	Developing new safety management processes, requirements, and programs	Managing safety upgrades to equipment and technology
Obtaining regulatory or company approvals	Representing safety in organisational activities	Complying with legal requirements	Re-designing or substituting work processes
Implementing processes to adequately demonstrate safety compliance	Generating ownership and commitment to safety from others	Implementing and complying with safety management system requirements	Enhancing worker capability
Preventing safety events disrupting operations	Supporting management’s accountability for safety	Performing and facilitating required safety practices	Making sacrifice judgments on behalf of safety
	Building relationships to increase safety influence	Monitoring and verifying safety compliance	
		Providing safety compliance and performance reports	

## RQ2: What is the role of a safety professional within organisations?

Individual items of safety professional work can be classified as demonstrated, administrative, social and physical safety work, based on the sense-making of purpose by the safety professional. Further thematic analysis of the data identified several themes related to the current practice of safety professionals:

1. Supporting the objectives and decisions of line management
2. Developing and implementing safety practices and processes
3. Supporting organisational safety needs (Demonstrated, Social and Administrative)
4. Utilizing industry and professional experience to determine safety direction

### 3.6. Supporting line management

Safety professional work is prioritized based on the wants and needs of management, not on the current risk faced by the front-line workforce. “Power is an issue in safety more important than culture” (Antonsen, 2009). Professionals aligning themselves with, and supporting management is a reasonable and expected organisational behavior – to do what the management wants.

The safety professional literature is divided on how aligned the role should be with the management of an organisation. There have been repeated calls for safety professionals to better understand the needs of management and support their decisions (Dejoy, 1993; van Dijk, 1995; Bryant, 1999; Stalnaker, 1999; Adams, 2003; Manuele, 2003; Hansen, 2011; Hansen, 2012) Others disagree and propose that safety professional must always keep a ‘thumb on the scale for safety’ (Hale, 1995; Saari, 1995; Columbia Accident Investigation Gehman, 2003; Woods, 2006; Baker, 2007; Shahinpoor and Matt, 2007; Antonsen, 2009; Haddon-Cave, 2009; Rebbitt, 2013; Grote, 2015). Many of the views on the need for safety professionals to carefully consider their positioning in relation to management come from investigations into major disasters, and from resilience engineering literature.

The safety profession may have solved one problem regarding its ongoing organisational position and relevance through embedding itself in the management structure of the organisation, and paradoxically created another, reducing its agency and independence. The existing safety professional literature demands that safety professionals support line management and the delivery of all organisational objectives to be a value-adding function within the organisation (Provana and Dekker et al., 2017). To a large extent, this has been achieved by orientating their activities in support of the needs of management. However, this alignment with line management can compete with supporting the mitigation of safety risks faced by the frontline workforce.

Management can be considered as the internal customer of the organisations support functions, including safety. Line management foot the bill and therefore direct the resources to achieve their goals, on their terms. Safety Professionals see themselves as a support role to management (Provan and Dekker et al., 2018). This research supports that view, and raises the question: how different would the role of a safety professional be if frontline employees and the people exposed to safety risk were considered the customer? There is an absence of safety professional work the supports and amplifies the voices and needs of the front-line worker (Weber and MacGregor et al., 2018).

While it can be argued that management wants workers to be safe, so the role of safety professionals does already support workers. This argument is a gross oversimplification of work, hierarchy, relationships, and goal-conflict within an organisational system. The gap between work as imagined by management and work as done by the workforce limits the ability of safety professional work to be targeted and effective. In turn, this leads to work generalisations and greater activity for the purposes of demonstrated, social and administrative safety, which

are the realm of management, rather than physical safety which is the realm of the workers. This gap between safety work that meets the organisational needs of management, and safety work that reduces risk to the front-line workers is essential to understand if we are to improve the contribution of safety professional work to the safety of operational work (Rezvani and Hudson, 2016).

Safety professionals see themselves and as accountable to management for their role performance, and discharge this through their safety work. They do not see themselves as responsible for worker safety. Safety professionals perform the role of demonstrating safety on behalf of management through managing the message and preventing safety events disrupting the continuing operations of the organisation and management's achievement of their production and profit goals. Or as Woods (2006) suggests “being a tabulator of statistics and a cheerleader of past safety performance”. “If two people in the same organisation always agree, then one of them is unnecessary” (Pater, 2006).

Resilience engineering, safety II, and safety differently literature demands that safety professionals independently challenge, and reshape the core objectives and logics of an organisation (Hollnagel and Woods et al., 2006). Continually reframing line managers and an organisations model of risk requires a new relationship between safety professionals and line managers, and a reorientation of safety professional work. Safety professional work is socially complex (Hale, 1995) as a core part of them effectively performing their role is to challenge the actions, decisions, and beliefs of management. This tension between both supporting and challenging the actions of management has long been associated with the safety profession (Hale, 1995). We have simplified the relationship over the past 20 years (Provan and Dekker et al., 2017), but where we have ended up needs urgent critical reflection. This study has highlighted that safety professionals find it difficult to perform this role of challenging the actions of individual managers due to the closeness of their relationship, and paradoxically safety professional agency continues to decline. Due to the chequered history of safety professionals in having poor relationships with management – they are now squarely in service of line managers rather than in service of a clear safety risk reduction purpose, with expertise, legitimacy, and social capital.

The relationship between safety professionals and line management could be considered as an institutional ecology in a similarly reciprocal relationship as traditional professions (such as medicine and law) and the state (Suddaby and Muzio, 2015). Safety professionals need line managers, and this symbiotic relationship, coupled with the relative power difference with line management has marginalized any obvious displays of disagreement. Consistent with adaptation theory, safety professionals have evolved to survive within the constraints of their institutions (Wallace, 1995). This adaptation for survival, however, may be at the expense of the challenge and intellectual competition necessary to maintain safety. Safety professionals need to rebalance their stakeholder relationships across the organisation between management, front-line workers, technical specialists, and others. Is the role of a safety professional to enable better organisational decision-making, or to make the best of management decisions that have already been made? Organisational life may be easier for a safety professional the closer they are aligned with management; however, safety may be improved through more independence.

### 3.7. Developing and implementing safety processes and practices

The continued calls for the increased professionalization of the safety professional role over recent decades has resulted in the ongoing institutionalization and standardization of safety professional work (Townsend, 2013; Dekker, 2014; Pryor and Hale et al., 2015; Righi and Saurin et al., 2015). Presently a vast abundance of ‘safety work’ exists in organisations, separate and parallel to the operational work (Rae and Provan, 2019). The emergence and growth of safety work in organisations correlate with the rise and increase in safety professional roles

with companies (Provan and Dekker et al., 2017). This is a broader trend within contemporary organisational referred to within the institutional work literature as the growth of peripheral work (Lawrence and Leca et al., 2013).

As safety is an emergent property of operational work and so the separation of safety work from operation work limits the direct impact of the activity on the reduction of safety risk. This study highlights the extent of the: separation, fragmentation, and standardization of safety professional work, through the growth of demonstrated, social, and administration safety work disconnected from operational safety. Safety professionals spent considerable time engaged in demonstrated and administrative safety work which appeared significantly distant from operational safety outcomes (Rae and Provan et al., 2018). These activities included: managing messages, participating in tokenistic activities, developing generic safety processes and practices, and compiling safety information, etc.

The success of safety professionals and their organisations at separating out safety professional work from core operations is evident through their dedicated safety management systems, safety incident management processes, and safety improvement programs. As well as through the wide-spread performance of demonstrated, social and administrative safety work by; management, workers, technical specialists, and safety professionals.

There is an established international network of safety professional associations referred to as INSHPO. INSPHO, together with national professional associations (e.g., Safety Institute of Australia, American Society of Safety Professionals, etc.) define guidelines for safety professional tasks, capability, certification, tertiary curriculum accreditation, even recommended role position descriptions. This body of advice and requirements, while extensive and vital for progressing the profession, is based on our existing knowledge of professional practice. Recent research suggests the safety professional role and activities, and therefore knowledge and skill requirements remain as an empirically unresolved question (Borys, 2015; Provan and Dekker et al., 2017).

Safety professional work is currently legitimized by executing normative, top-down decisions and mandates of line management. The resulting institutionalization of the role of a safety professional (Slager and Gond et al., 2012) creates a legal and moral defense for safety problems and events (Wastell, 1996, Provan and Dekker et al., 2017, Rae and Provan, 2019). For safety professionals, having an institutional and process orientation enables them to justify the activities they are performing independently of the safety outcomes experienced by the organisation. Safety professionals, through the professionalization of their role, have become effective at distancing the performance of their work from safety incidents. Safety professionals are conspicuous in their absence from independent investigations into major disasters. Wastell (1996) described how this focus on institutionalized methodology leads to a focus on the process instead of the outcome. In the case of safety professionals, a focus on safety work (demonstrated, social, and administrative), rather than the safety of work (Rae and Provan, 2019). Their organisations can not criticize safety professionals for following institutional processes; however, they can criticize them for independent decisions and freedom of action. In contemporary hyper-political organisations – the personal security offered by institutional work is welcome.

Safety events can occur anywhere and at any time, and the multiple contributors that combine to result in them exist across the organisation. Therefore, safety professionals require the flexibility, freedom, capability, and freedom of action for practice variation. They need to roam the organisation, ask, interpret, analyze and enable new understanding about operational work, and facilitate real-time decision-making in response. Such that, they need to be free agents as much as possible, not be confined by the reactive needs of management, their organisation or their standardized professional role. Safety professionals are currently not the autonomous agents that they need to be to understand and facilitate reductions in safety risk. Independent thought

and agency are critical for safety professionals to facilitate changes in organisational courses of action (Pater, 2006, Woods, 2006, Provan and Dekker et al., 2017). The current institutionalization and professional stratification of the safety professional role reduce the 'safety energy' available for proactive safety activity as and when it is needed in the organisation (Woods and Branlat et al., 2015).

### 3.8. Supporting organisational safety needs

During this study, safety professionals were often unable to articulate a clear goal for their work activities. The underlying purpose had to be teased out and observed through their practice as if it is not something that is typically considered by professionals in their work. When participants did say why they were performing the work activity, they expressed the goal in overly generic ways, for example:

- (1) "to support the achievement of the organisation's goals."
- (2) "to implement the safety management system."
- (3) "to simplify activities."
- (4) "to improve safety."

In the above description of the stated goals of safety professionals, we can see the tangible impact of their alignment with line management, and the professionalization of the role. As such, safety professional work rarely had a clear and specific goal that was related to a current risk exposure facing front-line workers. Safety professionals are arguably best placed in the organisation to monitor the ever-changing nature of safety risk; however, they do not seem to perform this role currently. And ironically, as their roles have moved closer towards supporting management needs and increased institutionalization, it has moved further away from the safety risk facing the workforce. The unintended consequences of this are that, by not reducing safety risk, safety professionals are not acting in the best interests of the organisation, its workers, or other stakeholders. Physical safety work should be deliberately created and legitimized to improve safety, and if necessary, performed in the place of the other types of safety work. Alarming, but not surprisingly though, physical safety work is the most challenging type of safety work for a safety professional to perform.

When safety professionals perform 'blunt-end' safety work – social, administrative, demonstrated - it doesn't impact too many people and the core operation of the organisation. It is somewhat inconvenient for personnel that have to do extra activity in addition to their core work, and it creates a performance drag on the business, but it does not deeply disrupt or upset their work. This safety work is 'on the side lines', or 'run in parallel' to the core operational work. As much as we hear the mantra and talk that safety needs to be integrated into the 'core operations of the organisations. What that actually means is that 'safety work needs to be more easily and efficiently incorporated into our daily work day'. It does not mean we want safety professionals to perform physical safety work and disrupt the way that we work.

However, given that safety is an emergent property of operational work, disrupting the way that operational work is performed, i.e. by performing 'sharp-end' safety work – physical safety does change the tools and tasks of people. Physical safety work includes safety changes to front-line work activities and environments – which can consist of the physical work of operators, as well as other tasks such as engineering design, work planning, materials purchasing, etc.

Physical safety work is the most direct and reliable form of safety professional work to achieve the objective of reducing safety risk. Physical safety work creates acute trade-offs and goal conflicts between the current way of performing work where the stakeholders have already balanced the various needs (including safety) associated with the work in a way that is acceptable to them. Safety professionals dare not impose a change concerning physical safety work unless allowed to or requested by workers and managers. Safety professionals often lack the

legitimacy to intervene in the tools and tasks of people performing work in which the safety professional has no direct experience (Weber and MacGregor et al., 2018).

The safety profession broadly lacks purpose and vision (Provan and Dekker et al., 2017) and a generic statement of ‘ensuring safety’ doesn’t count – safety professionals need to position themselves as goal-directed agents that proactively reduce safety risk. To do this, the findings of this study suggest that safety professional work needs to change significantly. The safety profession has evolved from having a clear compliance goal in the past (Provan and Dekker et al., 2017), to supporting management at present, and needs to continue to evolve to proactive safety risk reduction. One of the most important parts of a safety professional role is to be informed about real-time safety risks in the organisation and be informative to decision makers in response (Woods, 2006). Safety professionals need to become sharp-end operators, focused on physical safety work at all levels of the organisation.

### 3.9. Utilising industry and professional experience

Safety professionals do not use a scientific narrative to justify the activities that they are performing. They claim safety expertise based on industry experience and safety work that they have performed in other organisations. Scientific evidence was not mentioned once in the 62 interviews in relation to the safety professional work activity. Given that no data was collected, we can only propose the following discussion and suggest that the relationship between safety science and safety practitioners be part of a future research agenda. The absence of a safety science empirical narrative associated with safety professional work may be due to a combination of the following:

- (1) Low levels of tertiary academic qualifications among safety professionals
- (2) Lack of relevant safety science research findings
- (3) An absence of effective mediums to disseminate research findings
- (4) Organisations do not demand scientific evidence concerning safety work

Safety professionals desire professional status, yet largely reject the idea that tertiary degree qualifications should be minimum professional entry criteria (Smith and Wadsworth, 2009). Safety professional’s claim that expertise comes from experience on the job or experience gained in the workplace outside the safety profession (Provan and Dekker et al., 2018). Safety is a complex socio-technical discipline, and we do not have an agreed understanding of the knowledge and skill requirement for safety professionals (Provan and Dekker et al., 2017), nor a clear boundary around the safety science discipline. Current attempts by professional associations and organisations to standardize the role of safety professionals is narrowing the focus towards demonstrated, social, administrative safety work. Alongside this focus, is the widening of contradictory empirical findings in relation to these types of work, for example safety cases (demonstrated), safety culture (social), and safety management systems (administrative) (Rae and Provan, 2019).

Safety professionals determine and undertake safety work drawing on, personal experience and direction from management, rather than on current safety science research. Safety professionals have expert status within the organisations, such that their advice carries the weight of that perceived expertise, and stakeholders should expect it to be based on scientific evidence where it exists (Almklov, Rosness et al., 2014).

The absence of an empirical safety science narrative driving safety professional work contributes to the inability of the safety professional to exercise agency and challenge their alignment with the needs and decisions of management. Personality and authority will prevail over absent, or poorly presented empirical evidence (Peters and Peters, 2006). Empirical safety findings help reduce the institutionalization of the safety professional role and reduce safety work that does not contribute to operational safety – safety clutter (Rae and Provan et al., 2018).

Contemporary safety theories and emerging empirical evidence (Dekker, 2017) are dismantling some of our historical ‘truths’ on which we have built our existing safety work. This is particularly true in relation to social and administrative safety work which currently dominates the roles of safety professionals. One such truth is the contribution of the safety profession to improving safety in organisations, for which there is very little empirical evidence (Borys, 2015). Safety professionals need to establish a closer connection with the current body of safety science research, as one way to address the findings of this research, that limit their contribution to proactively reducing safety risk in their organisations.

## 4. Conclusion

Safety in contemporary organisations is a complex social, political and technical challenge (Hale, 1995) and safety professionals alone will not be able to reshape the institutional factors surrounding safety work. While much of the existing literature focusses on, and suggests that safety professionals need to develop improved interpersonal skills and influence, the results of this research raise a broader need – how safety work in organisations can be re-orientated, to enable safety professional work activities that serve safety risk reduction purposes?

The safety performance of the safety-critical industries in the developed world, as measured by occupational fatality rates, has not improved in the last ten years. During this time, we have seen significant growth in the number of safety professionals per organisation, as well as a more recent considerable decline in numbers due to macroeconomic cycles. Organisations may have noticed this lack of impact that safety professionals are having on safety performance. They have drifted towards administrative and social activities at the expense of taking a knowledge-based stand where it is needed. It is currently in the interest of safety professionals to carve out their professional space in organisations through demonstrated, social and administrative safety work. These categories of safety work: are more straightforward to undertake, aligns their role with line managements political power, provides personal security and career progression, and creates ongoing institutional safety work to practice and monitor. Safety professionals need to reflect of their current practice and re-orientate their role to impact safety risks in their organisation.

It is crucial for us to be clear, that we are not suggesting that safety professionals are immorally choosing not to perform safety work that proactively reduces safety risk. We think that the opposite is true of their beliefs – that they believe that each type of safety work does contribute to operational safety. They mostly believe that the role they are performing is what their job should be, i.e. supporting management and institutionalizing safety activities. Experience throughout their careers provides safety professionals with a strong professional ‘evidence base’ (Provan and Dekker et al., 2018). Others within organisations rarely, if ever, consider the empirical basis for safety, and nor do safety professionals themselves.

The findings for RQ2 regarding the contemporary role of safety professionals lie in stark contrast to a possible role inferred from contemporary resilience engineering, safety-II and safety differently literature, being:

- (1) Challenging the objectives and decisions of line management
- (2) Enhancing operational practices and processes
- (3) Supporting safety risk reduction and front-line safety needs
- (4) Utilizing safety science research to determine safety direction

### 4.1. Practical implications

The following practical implication from this research deserve urgent consideration by safety professionals and their organisations:

1. *Independence*: Safety professionals should consider their cognitive, social, and structural role independence from management. While it



is necessary for safety professionals to maintain close involvement with operational activity, they need to balance this with challenging and reframing the organisation's core work, decisions, and understanding of risk. Currently, the work that line management directs them to perform, is consistently prioritized ahead of work that they should perform based on their professional opinion.

2. **Autonomy:** Safety professionals should consider the level of autonomy they have in their role to be proactive towards understanding and responding to emergent 'weak signals' in the organisation. Safety professionals cannot have their tasks predetermined and administratively prescribed, at the expense of the ability to roam the organisation for vulnerabilities. The greatest possible variety of safety professional activities is best.
3. **Risk:** Safety professionals should consider the links between their safety work and the safety of core operational activity in their organisation. They should be clear on the purpose of all safety work and seek to minimize or transfer safety work that is required, but not reliably linked to operational safety. Priority should be re-balanced towards physical safety work, making safety professionals sharp-end operators, not blunt-end administrators.
4. **Knowledge:** Safety Professionals should consider the currency of their safety science knowledge and its relationship to the decisions about their safety work. The safety profession and industry should work to bridge the gap to safety researchers and safety educators. Safety Professionals are managing safety in an objective world, and while there are many things that we don't empirically know about safety – there are many things that we do.

#### 4.2. Summary

The findings of this research should create concern for organisations through their implications for workplace safety. The safety profession needs to urgently reflect on these issues and challenges and chart a deliberate future direction for safety professional practice. The current practice of the profession has evolved and adapted, in response to its organisation context, rather than as a deliberate collective effort to position themselves as a pivotal and crucial resource in shaping organisational safety outcomes.

Safety performance, as measured by fatality rates in safety-critical industries, has not improved over the past decade. Could the current practice of safety professionals be contributing to this outcome? Together with their organisations, safety professionals should critically reflect on their: independence from the objectives of management, institutionalization and autonomy of professional work, focus on the link between safety work and physical safety risk reduction, and learning from advances in safety science.

This is not a simple problem, and we can't address the role of safety professionals separate from the nature of safety work within organisations. This paper provides an understanding of how broader organisational context directly influences safety professional work and provides us the insight to develop organisational strategies to re-orientate the safety profession towards the understanding and management of safety risk. Safety professional practice in-effectiveness is a joint problem of the profession and the organisations that house them.

#### Appendix A. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ssci.2019.04.024>.

#### References

- Adams, S.J., 2003. The emerging management school of safety. *Professional Safety* 48 (9), 18–21.
- Almklov, P.G., Rosness, R., Størkersen, K., 2014. When safety science meets the practitioners: does safety science contribute to marginalization of practical knowledge? *Saf. Sci.* 67, 25–36.
- Antonsen, S., 2009. Safety culture and the issue of power. *Saf. Sci.* 47 (2), 183–191.
- Baker, J. (2007). The Report of the BP U.S. Refineries Independent Safety Review Panel. Washington DC, Baker Panel.
- Blair, E. H. (2004). Critical competencies for SH&E managers-implications for educators. ASSE Professional Development Conference and Exposition.
- Borys, D., 2015. Do occupational health and safety professionals improve the occupational health and safety performance of an organisation? *J. Health Safety Res. Pract.* 7 (1), 2–13.
- Brun, J.-P., Loisel, C.D., 2002. The roles, functions and activities of safety practitioners: the current situation in Québec. *Saf. Sci.* 40, 519–536.
- Bryant, J.J., 1999. Mentoring the young safety professional. *Professional Safety* 44 (8), 16–19.
- Chang, S.H., Chen, D.F., Wu, T.C., 2012. Developing a competency model for safety professionals: correlations between competency and safety functions. *J. Safety. Res.* 43 (5–6), 339–350.
- Daudigeos, T., 2013. In their profession's service: how staff professionals exert influence in their organization. *J. Manage. Stud.* 50 (5), 722–749.
- Dejoy, D.M., 1991. Safety professionals: a survey of job activities. *Occupat. Hazards* 53, 35–38.
- Dejoy, D.M., 1993. Development of a work behaviour taxonomy for the safety function in industry. *Accid Anal Prev* 25 (4), 365–374.
- Dekker, S., 2017. The safety anarchist: relying on human expertise and innovation, reducing bureaucracy and compliance. Routledge, New York.
- Dekker, S.W.A., 2014. The bureaucratization of safety. *Saf. Sci.* 70, 348–357.
- Gehman, H.W., 2003. Columbia Accident Investigation Board, Report. National Aeronautics and Space Administration.
- Grote, G., 2015. Promoting safety by increasing uncertainty – Implications for risk management. *Saf. Sci.* 71, 71–79.
- Haddon-Cave, C. (2009). The Nimrod Review: An Independent Review into the Broader Issues Surrounding the Loss of the RAF Nimrod MR2 Aircraft XV230 in Afghanistan in 2006. London. Report (Vol. 28).
- Hale, A.R., 1995. Occupational health and safety professionals and management: identity, marriage, servitude or supervision? *Saf. Sci.* 20, 233–245.
- Hale, A.R., Bianchi, G., Dudka, G., Hameister, W., Jones, R., Perntula, P., Ytrehus, I., 2005. Surveying the role of safety professionals: objectives, methods, and early results. *Safety Sci. Monitor* 9 (1), 1–33.
- Hale, A.R., Guldenmund, F.G., 2006. Role and tasks of safety professionals: some results from an international survey. *Safety In Action*, Melbourne.
- Hansen, M.D., 2011. Swim with the sharks: don't stay high & dry & without influence. *Ind. Safety Hygiene News* 45 (10), 50–52.
- Hansen, M.D., 2012. Working with your CEO. *Ind. Safety Hygiene News* 46 (5), 75–175.
- Hasle, P., Sørensen, O.H., 2011. When health and safety interventions meet real-life challenges. *Policy Pract Health Safety* 9 (1), 3–16.
- Hollnagel, E., D. D. Woods and N. Leveson (2006). Resilience engineering: Concepts and precepts, Ashgate Publishing, Ltd.
- INSHPO, 2017. The Occupational Health and Safety Professional Capability Framework: A Global Framework for Practice. Park Ridge, IL, USA.
- Jarzabkowski, P., Kaplan, S., Seidl, D., Whittington, R., 2016. On the risk of studying practices in isolation: Linking what, who and how in strategy research. *Strategic Organization* 14 (3), 248–259.
- King, N. (2012). Doing Template Analysis. *Qualitative Organizational Research: Core methods and current challenges*. G. Symon and C. Cassell. London: UK, Sage: 426–450.
- Lawrence, T.B., Leca, B., Zilber, T.B., 2013. Institutional work: current research, new directions and overlooked issues. *Organizat. Studies* 34 (8), 1023–1033.
- Manuele, F., 2003. On the practice of safety. John Wiley & Sons Inc., New Jersey.
- Nedved, M., Booth, R., 1982. A comparison of the role and training needs of safety personnel in the U.K. and West Germany with special reference to the chemical industry. *J. Occupat. Accidents* 4, 61–77.
- Olsen, K., 2012. Occupational health and safety professionals strategies to improve working environment and their self-assessed impact. *Work* 41 (Suppl 1), 2625–2632.
- Pater, R., 2006. Leading with courage Conquer fear to be an agent for change. *Ind. Safety Hygiene News* 40 (10), 92–94.
- Peters, G.A., Peters, B.J., 2006. Compromises in the Pursuit of Safety. *Profession. Safety* 51 (8), 33–37.
- Phillips, N., Lawrence, T.B., 2012. The turn to work in organization and management theory: Some implications for strategic organization. *Strategic Organizat.* 10 (3), 223–230.
- Provan, D.J., Dekker, S.W.A., Rae, A.J., 2017. Bureaucracy, Influence and Beliefs: a literature review of the factors shaping the role of a safety professional. *Saf. Sci.* 98, 98–112.
- Provan, D.J., Dekker, S.W.A., Rae, A.J., 2018. Benefactor or burden: exploring the professional identity of safety professionals. *J. Saf. Res.* 66, 21–32.
- Pryor, P., Hale, A., Hudson, D., 2015. The OHS professional: a framework for practice – role, knowledge and skills. International Network of Safety and Health Practitioner Organisations, Park Ridge, IL, USA., INSHPO.
- Rae, A.J., Provan, D.J., 2019. Safety work versus the safety of work. *Saf. Sci.* 111, 119–127.
- Rae, A.J., Provan, D.J., Weber, D.E., Dekker, S.W., 2018. "Safety clutter: the accumulation and persistence of 'safety' work that does not contribute to operational safety". *Policy Pract. Health Safety* 16 (2), 194–211.
- Rebbit, D., 2013. The dissenting voice. *Professional Safety* 58 (4), 58–61.
- Rezvani, Z., Hudson, P., 2016. Breaking the clay layer: the role of middle management in the management of safety. *J. Loss Prev. Process Ind.* 44, 241–246.
- Righi, A.W., Saurin, T.A., Wachs, P., 2015. A systematic literature review of resilience engineering: research areas and a research agenda proposal. *Reliab. Eng. Syst. Saf.*

- 141, 142–152.
- Saari, J., 1995. Risk assessment and risk evaluation and the training of OHS professionals. *Saf. Sci.* 20, 183–189.
- Shahinpoor, N., Matt, B.F., 2007. The power of one: dissent and organizational life. *J. Bus. Ethics* 74 (1), 37–48.
- Slager, R., Gond, J.-P., Moon, J., 2012. Standardization as institutional work: the regulatory power of a responsible investment standard. *Organizat. Studies* 33 (5–6), 763–790.
- Smith, A.P., Wadsworth, E.J.K., 2009. Safety culture, advice and performance. United Kingdom, IOSH.
- Stalnaker, C.K., 1999. How's your credibility? *Professional Safety* 44 (8), 18–19.
- Suddaby, R., Muzio, D., 2015. Theoretical perspectives of the professions. In: *The Oxford Handbook of Professional Service Firms*, pp. 47.
- Townsend, A.S., 2013. Safety can't be measured. UK, Gower Publishing, Farnham.
- van Dijk, F.J.H., 1995. From input to outcome: changes in OHS-education and training. *Saf. Sci.* 20, 165–171.
- Wallace, J.E., 1995. Organizational and professional commitment in professional and nonprofessional organizations. *Adm. Sci. Q.* 40, 228–255.
- Wastell, D.G., 1996. The fetish of technique: methodology as a social defence. *Informat. Syst. J.* 5, 25–40.
- Weber, D.E., MacGregor, S., Provan, D.J., Rae, A.J., 2018. “We can stop work, but then nothing gets done.” factors that support and hinder a workforce to discontinue work for safety. *Saf. Sci.* 108, 149–160.
- Woods, D.D., 2006. How to design a safety organization: Test case for resilience engineering. In: Hollnagel, E., Woods, D.D., Leveson, N. (Eds.), *Resilience engineering: Concepts and precepts*. Ashgate, Surrey, pp. 315–325.
- Woods, D.D., Branlat, M., Herrera, I., Woltjer, R., 2015. Where is the organization looking in order to be proactive about safety? a framework for revealing whether it is mostly looking back, also looking forward or simply looking away. *J. Contingen. Crisis Manage.* 23 (2), 97–105.
- Wu, T.C., 2011. The roles and functions of safety professionals in Taiwan: comparing the perceptions of safety professionals and safety educators. *J. Safety Res* 42 (5), 399–407.
- Yin, R.K., 2017. *Case study research and applications: design and methods*. Sage publications.