



Safety after neoliberalism

Sidney W.A. Dekker

Griffith University, Safety Science Innovation Lab, HLSS, Macrossan Building N16, 170 Kessels Road, Nathan Campus, QLD 4111, Australia



ARTICLE INFO

Keywords:

Safety management
Neoliberalism
Privatization
Globalization
Participatory equality
Workplace injuries

ABSTRACT

Neoliberalism refers to the political, economic and social arrangements that have become globally dominant since the 1980s. It promotes privatization, free markets, and deregulation. Neoliberal governance can be linked to safety management by stifling rules developed by non-experts, bureaucratic overreach, imposition of discipline and accountability, and a hemming in of autonomy and discretion on the frontline. Using a variety of sources, this paper examines what safety and safety management can look like after neoliberalism. Centrally, it hinges on changing the belief that complex risks can be managed by rule-based uncertainty reduction, documentation-based liability management, or shrinking the bandwidth of allowable human performance. Safety after neoliberalism involves regulation on the basis of capacities to make things go right as opposed to compliance; de-bureaucratizing safety by putting safety expertise closer to the 'messy details' of actual practice, and instituting investigations and restorative incident responses that emphasize safe working conditions as a collective responsibility. In addition, safety after neoliberalism takes a fresh look at global supply chains, participatory equality, and workers' compensation practices.

1. Introduction

Neoliberalism refers to the political, economic and social arrangements that have become globally dominant since the 1980s. It encourages small government, deregulation, tax cuts, privatization, individual responsibility and an unfettered free market. Neoliberalism has spread beyond Anglo-Saxon countries (Albert, 1993), in part because of the export of its philosophy, policies and economics through the IMF and World Bank (Kotz, 2002; Kuttner, 2018).¹ The consequences for workplace relations are well-documented (Springer et al., 2016). In the extreme, neoliberal governments have retreated from labor arbitration, wage protection, social insurance, workplace inspections and from owning or running anything at all, except a smaller version of themselves. The promotion of privatization, self-regulation and 'self-reliance' between employers and employees have tended to shift workplace

power balances and eroded employment conditions of considerable numbers of people (Watson, 2015) as well as negatively impacted workplace health (Schofield, 2005). Economic insecurity and flexibilization of labor have gone up, real wages have not (Saul, 2015).

Specifically, neoliberal governance fits hand-in-glove with features of workplace safety that have given rise to recent discontent. Rolston describes the arc in an anthropological study of safety management in Wyoming mines:

Longtime miners remember their first years working at the Powder River Basin mines in the late 1970s and early 1980s as being joyfully free of bureaucracy. 'All of us—managers, operators, everybody—were figuring out how to do this together,' explained Roger. 'We didn't have any paperwork or anything because we didn't need it. We made our own systems for handling everything, from training people on equipment to safety.' As the mines became more

E-mail address: s.dekker@griffith.edu.au, <http://www.sidneydekker.com>.

URL:

¹ Between the great depression of the 1930s to the 1970s, governments and economists believed that capitalism could only work with strong intervention and state regulation. Political-economic arrangements during the first decades after WWII were aimed at sharing the gains of economic expansion and at spreading, preventing and compensating risk (e.g. workplace injuries, job loss). Governments chose emancipatory, reformist, redistributive strategies—in part to tame the 'political passions' that had helped ignite communism and fascism (Braedley & Luxton, 2010). But growth in post-WWII welfare states, driven by Keynesian monetary stability and carefully managed markets, stagnated in the 1970s. It gave an opportunity for a 'neo' version of classical liberal economic thought, which had been dominant before the Great Depression of the 1930s. Today, it is a mode of governance that is omnipresent and unavoidable, leading "to a sense of neoliberalism being everywhere:"...neoliberalism refer[s] to the new political, economic, and social arrangements within society that emphasize market relations, re-tasking the role of the state, and individual responsibility. Most scholars tend to agree that neoliberalism is broadly defined as the extension of competitive markets into all areas of life, including the economy, politics, and society. Key to this process is an attempt to instill a series of values and social practices in subjects (Springer, Birch, & MacLeavy, 2016, p. 2).

<https://doi.org/10.1016/j.ssci.2020.104630>

Received 27 August 2019; Received in revised form 17 December 2019; Accepted 21 January 2020

0925-7535/© 2020 Elsevier Ltd. All rights reserved.

established and were eventually bought out by different companies, employees found their everyday actions increasingly constrained by official policies that emanated from boardrooms rather than the mine itself. The most significant of these revolved around safety (Rolston, 2010, p. 336).

Heather & Kearns (2018, p. 4) summarize the lived experience of neoliberal safety management in that industry:

- Rules and regulations that have become overly obstructive;
- Safety systems that encourage a dumbing down of individuals and a dilution of personal autonomy and discretion;
- Higher stress levels due to a sense of loss of control;
- Considerable wasted effort;
- Systems that have become far too complicated;
- Common sense and initiative that have been discouraged;
- Cynicism about slogans, stated priorities and the motivation behind rules;
- Safety staff detached from the front line—either by their inappropriate experience or because of their physical location being remote from the workplace (cf. Woods, 2006).

Rules developed by non-experts, bureaucratic entrepreneurship, the imposition of self-discipline and individual accountability, and a constraining of autonomy and discretionary decision power on the front-line—these are recognizable manifestations of workplace neoliberalization on the management of safety. At the same time, the adoption of neoliberal governance has not been followed by a reduction in workplace fatalities. In the UK, for instance, the fatality rate has lingered between 0, 45 and 1 out of each 100,000 workers per year since the 1980s: “In statistical terms the number of fatalities has remained broadly level in recent years,” with an average of 141 fatal workplace incidents (HSE, 2018, p. 11). The US shows a similar flatline, with 4–6 workers out of 100,000 fatally injured annually over the past two decades. Even in France—not exactly a poster child for neoliberalism but still a country whose industries caught on early enough—workplace fatalities have hovered around 600–700 per year from the late 1980’s to 2016 (Mourey, 2019).²

Neoliberalism has generally come in for censure (Ostry et al., 2016). Questions have been asked about privatization, government retreat, wage inequality, globalization, financialization, labor flexibilization and changes in wage structures, workplace power imbalances, economic uncertainty and erosion of social safety nets (Cross, 2017; Perry, 2007; Watson, 2015), as well as asset disinvestment, service delivery interruptions, privatization-related accidents in utilities, healthcare and railways, deindustrialization, fiscal erosion, infrastructure decline and social polarization (Jack, 2001; Kaplan, 2019; Kotz, 2002). If, or when, the time comes to go past neoliberal governance and workplace management, what would or could safety look like? The remainder of this article is dedicated to exploring this

² This stands in contrast to the safety gains made in the decades post-WWII—an era known for its big governments, rapidly expanding social welfare systems and sizable union participation. The absolute number of annual workplace fatalities in that period in France, for instance, more than halved from over 2,000 in 1956 to below 1,000 in the early 1980s. Then, from the dawn of neoliberalism onward, the number stabilized and remained pretty much flat. Alternative explanations are possible, of course. There might be a natural asymptote to safety progress as industries get ever safer (Amalberti, 2001), in part due to system complexity and the increasingly stochastic nature of failure at the thin edge of this wedge (Dekker, 2006). This is, however, contradicted by those committed to a ‘vision zero’ (Zwetsloot et al., 2017). The cascading effects of neoliberalism in the workplace may perhaps help sustain the risk of life-changing injuries, fatalities and large-scale disasters. If neoliberalism represents the limit on our fatality prevention improvements, then considering the future of safety means critically assessing its role, and examining the potential for alternatives to do better.

question.

Before we go there, though, there is one problem to briefly discuss: not many studies exist which directly address safety management under non-neoliberal governance. Safety management itself, as we teach and know it today, is in a sense a very corollary of neoliberalism: its growth inside industries is a response to government deregulation, shifting insurance and liability arrangements; it promulgates bureaucratic rulemaking, promotes worker responsabilization, and increasingly relies on a free market of safety ‘service industries’ for auditing, researching, pre-qualification, training, inducting, enforcement, publishing, recruitment, accreditation and consultancy (Almklov, Rosness, & Storkersen, 2014; Gray, 2009; Hasle & Zwetsloot, 2011; Townsend, 2013). And where safety management successes do run counter to neoliberal governance (e.g. decluttering management systems, decentralizing power, devolving decision authority, investing in restorative just cultures), they seldom meet criteria for published ‘evidence’ in our literature since they come from a world of practical experience and application (e.g., Jacobsen, 2017). Sketches of an alternative to neoliberal safety management thus have to come in part from examples, from other managerial domains, and from other literatures.

2. After neoliberalism: The restoration of professional judgment

2.1. The management of complex risks

Safety after neoliberalism will turn on changing the belief that complex risks can be managed by rule-based uncertainty reduction, documentation-based liability management, or shrinking the bandwidth of allowable human performance (recall Heather & Kearns, 2018). The enabling of professional decision discretion is known to be the chief antidote to the imposition of constraints through rulemaking (Roe, 2013). Highly practiced professional skills of pattern recognition, scenario formulation and mental simulation of the execution of possible decision options (Klein, 1998) have shown to be far better at managing dynamic, complex situations than imposing fixed rules that supposedly reduce uncertainty. Offering autonomy and opportunities for mastering these skills, as well as a clear understanding of the purpose to which they are directed, have long been recognized as stronger motivators for high-reliability performance than compliance and discipline (Deci et al., 1999; Pink, 2009). Indeed, freedom under responsibility, and motivating people by enabling them to contribute to success, are well-documented formulae for high-performing teams and organizations alike (McCord, 2017).

2.2. Deregulation and reregulation

For this to work in safety after neoliberalism, we might first review the intended and unintended effects of deregulation. Deregulation is the reduction, simplification or removal of government regulations or restrictions, notably in a particular industry. It can even be a call to abolish a regulatory authority altogether, like the Occupational Safety and Health Administration in the US (Kniesner & Leeth, 1995). Deregulation can also consist of reducing the expertise base in the regulatory agency, removing detailed inspections and delegating more responsibility to the operator or market (Kaplan, 2019). This has variously been called performance-based regulation, function-based regulation, system-based regulation or even self-regulation (Power, 1999).

Deregulation aligns, in spirit and in principle, with the ideas and ideals of worker discretion and autonomy, and with the notion that decision authority needs to flow to where expertise sits (Rasmussen & Jensen, 1974; Weick & Sutcliffe, 2007). But an unanticipated effect of deregulation has been not a reduction but a displacement of rule-making, documentation and inspection activities. In one western country about 60% of rules now come from industry itself: only 40% is government-imposed (Saines et al., 2014). Rules are made up and applied within organizations, and between businesses (e.g., rules,

processes and metrics a contractor has to comply with before it can work on a client's site). Another (perhaps more predictable) effect is that deregulation can introduce new safety risks (Bier, Joosten, Glycer, Tracey, & Welsh, 2003), as seen in the Boeing 737 MAX accidents (Kaplan, 2019) or the 2001 repeal of OSHA's ergonomics standard in the US (Mogensen, 2003).

2.3. What can governments do after neoliberalism?

One option after neoliberalism is of course the reassertion of government ownership (sometimes of formerly government-owned corporations). This is already no longer taboo—not even in the US. The Federal Government owns most of General Motors since 2009, and is likely to firm up the independent role of the Federal Aviation Administration (Gelles & Kitroeff, 2019). Re-regulation is no doubt trickier, but a transformation of what regulators are looking for as proof of adequate risk management is possible and has been proven already. The *Woolworths Experiment*, for instance (Dekker, 2018) turned critically on regulators' willingness to stop expecting evidence of internal compliance with a raft of self-imposed safety measures, allowing innovation and greater efficiency and effectiveness in the regulatory relationship. Some regulators have become interested in more formally examining why things go right (consistent with Safety II principles (Hollnagel, 2017)), and trying to enhance or assure the presence of the capacities (or 'resilience potentials') in an organization's people, processes and systems that make it so (Jacobsen, 2017).

2.4. What can organizations do after neoliberalism?

The growth of internal safety bureaucracies has been hard to keep in check (Townsend, 2013). Given the governance and risk liability arrangements in place under neoliberalism (Du Gray, 2000), "as soon as safety is involved, there seems to be an irresistible push towards a wider scope of norms, procedures and processes, whatever the context" (Bieder & Bourrier, 2013, p. 2), up to an organization's entire 'safety culture' (Haugen et al., 2013). Changing the belief in rule-driven uncertainty reduction, documentation, and constraining allowable human performance also requires a fresh look at the need for non-technical, administrative staff who influence decision-making at the frontline (Graeber, 2013; Supramaniam & Dekker, 2003), including legal (Albert, 1993); and the dependence on outside contractors or consultants for the supply of technical and managerial expertise (Mintzberg, 2004), which in turn has compromised the role and identity of internal safety professionals (Provan et al., 2017, 2018; Reed, 2018). A recent poll in the mining industry showed that the majority "of the workforce feels things are being imposed on them that add no value, wastes their time, adds to their frustration and, at worst, creates a disconnect by removing control over their work" (Heather & Kearns, 2018, p. 3). Yet this might keep managers

...convinced that simply pursuing a policy of tighter controls and stiffer penalties for front-line workers will provide the ultimate solution to their problems. Meanwhile, evidence continues to accumulate that it is precisely this policy that is generating the crises feared by those same politicians and business leaders (Amalberti, 2013, p. vii).

The promises of de-bureaucratizing safety are enticing, though (Hale & Swuste, 1998):

- It would help unleash innovation by removing real and perceived constraints on organization members' personal freedom, diversity and creativity (Hale & Borys, 2013).
- It would reintroduce autonomy for workers (including highly educated and expensive ones, like rocket scientists or doctors (Harrison & Dowswell, 2002; Vaughan, 1999)). It would mean a re-embrace of responsibility by those who execute the work, and a re-valuation of

front-line expertise and professional judgment (Dekker, 2014a, 2018; Montgomery, 2006; Reed, 2018).

- It would help in the ability to predict unexpected events (Roe, 2013), and can remove structural secrecy about risk (Dekker & Pitzer, 2016), as well as enhance organizational learning abilities by dimming the focus on quantification and subsequent 'numbers games' (Collins, 2013).

De-bureaucratizing safety means putting safety expertise closer to the nuances, 'messy details' and quotidian risks of actual practice—as well as to operational decision-makers (CAIB, 2003; Galison, 2000; Roe, 2013; Woods, 2006). It helps reliance "on professional accountability: control over organizational activity rest[s] with the employees with technical expertise ... a system built on trust of and deference to the skills of those at the bottom of the organizations" (cf. McCord, 2017; Vaughan, 1996, p. 211)

Examples of successes include the decluttering of safety management systems (Rae et al., 2018) with one organization paring its SMS down to 10% of its former self (Jacobsen, 2017); decentralizing decision-making from headquarters to the field; and devolving decision authority closer to the frontline (Dekker, 2015). The value of reflective, professional judgment over rationalized, standardized work has long been acknowledged, predating the expansion of neoliberalism (Reed, 2018; Schön, 1983). The route to once again relying more on it, however, would involve assuaging the anxiety that organization members, leaders and boards feel at being exposed to liability (Schofield, 2005), for example by developing alternative methods of proving due diligence around a range of health and safety issues (Tooma, 2017). Rolston (2010) offers an example where work crews deliberately avoided using bureaucratized safety systems, and instead built on their collective responsibility for mitigating risk by reframing official safety programs in terms of kinship—specifically the ties of relatedness crew members create with each other in their everyday work. Encouragingly, "management eventually adopted this framing as well in order to distance themselves from an industry blighted by conflict, encourage employees to stay in the midst of a labor shortage, and maintain enviable safety records" (p. 331).

3. Participatory equality and workers' compensation after neoliberalism

3.1. Participatory equality

For the successes above to become sustainable and more widely spread after neoliberalism, other byproducts or contemporaries of neoliberalism need to be taken on as well. One is participatory equality: the actual, meaningful involvement that workers have in decisions about the design, preconditions, implementation, execution, circumstances, monitoring and remuneration of their work—including of course those aspects to do with safety. Participatory equality has declined since the 1980s (Dinleroz & Greenwood, 2016), and its reinvention for the more gig-based, precarious and digital workforces of today would likely have positive effects on bargaining power (Bryson et al., 2011), worker rights (Lafferty, 2010), income distribution and equality (Watson, 2015), and worker health and safety (McIntyre, 2005) by opening up worker control over the labor process including division of productive tasks, timetables, tools use, breaks, overtime arrangements, supervisory styles, and work-related expenses (McCord, 2017). Population health could benefit as well, by reducing occupation-related stress and burnout through more control, security and autonomy (Ayers et al., 2013).

Activism is one route to help this along by focusing public attention on issues of economic and social justice (Masters, 1997). The establishment of minimum standards for specific jobs (e.g., order pickers) or duties is another technique, because it has a reach much wider than just the union membership. Setting up or extending unions with benefits

(such as healthcare, parental leave) not offered by employers is another strategy, even if in exchange for (higher) fees. This could even apply to the precarious workforces of a gig economy. Inspiration also comes from non-Anglo models of participation, such as the German *Mitbestimmung*, a form of participative company decision-making that involves shareholders, employers, executives and trade unions in a model of mutuality and shared responsibility (Albert, 1993).

3.2. Workers' compensation and responses to harm

Another aspect is related to the financialization and marketization of risk under neoliberal governance. Some of its interventions were designed primarily to reduce the burden of cost associated with employers' insurance premiums. The delivery of such relief to employers has required restrictions on injured workers' rights to legal action and settlements, and an obligation on injured workers to return to work (Schofield, 2005). The latter has led to sometimes inappropriate (if not unethical or fraudulent) use of modified ('light') duties or return-to-work programs. Safety and rehabilitation professionals have been coopted into compromised roles in this (Frederick & Lessin, 2000; GAO, 2012). Parrish & Schofield (2005) have shown how neoliberal policy has affected (and in many cases delegated) the day-to-day management and administration of the claims process. They find their way into workplace relations that involve systematic suspicion, disrespect and humiliation of work-injured claimants by insurance company officials (as well as supervisors, peers and even colleagues). This links to underreporting of injuries, which is often encouraged and abetted by other policies, such as bonuses for injury-free performance or the declaration of 'zero harm' (Saloniemi & Oksanen, 1998; Sheratt & Dainty, 2017).

After neoliberalism, insurance arrangements and workers' compensation practices (Ogus, 2004) could be redirected away from a demonstration that organizations have put into place all reasonably practicable measures to protect people from harm (Jacobs, 2007) or the suggestion that workers themselves are to blame when things don't go to plan (Davies & Bansel, 2005; O'Neill, 2003). Instead, as said above, a demonstration of the existence and assurance of capacities to make things go right is becoming a meaningful alternative (Hollnagel, 2017; Tooma, 2017). Also, behavior-based safety programs that aim to 'fix the worker' by making them accountable while leaving workplace conditions essentially unchanged, are no longer automatically considered *a-jour* or legitimate (Hopkins, 2006); and retributive 'just culture' policies that hold frontline individuals 'accountable' for nonconformances and bad outcomes are being replaced by restorative alternatives (Wailling et al., 2019). Indeed, the substitution of retributive systems of accountability for restorative just cultures has shown to be a powerful (and often cheaper) way to manage the aftermath of mistake and mishap, by encouraging moral engagement, emotional healing, practitioner re-engagement and an increase in personal and organizational resilience (Dekker, 2016; Jacobsen, 2018).

The individualization of workplace risk, or 'responsibilization,' refers to safety programs and violation notices targeted at workers, not companies, which has helped tilt the distribution of work-related injury costs in favor of corporate interests (Gray, 2009; Schofield, 2005). It could be countered with policy reforms and by small, repeated alternative approaches to incidents. Replacing investigations with learning reviews or learning teams (e.g., Edmondson, 1999; Pupulidy & Vesel, 2017) is a demonstrated way to go behind the label 'human error' (Dekker, 2014b; Woods et al., 2010), and reveal more about the conditions that (failed to) set people up for success, and which are a collective responsibility. Distributing the cost of workplace injuries more fairly cannot work without addressing participatory inequality. It also requires the involvement of insurers and therapeutic and return-to-work professionals, and a greater honesty about injury numbers (for instance by relying on workers' compensation figures rather than injury frequency rates reported by the organization itself) (Collins, 2013).

4. Safety and global capitalism after neoliberalism

Finally, there is an issue on a global scale (cf. Beck, 1992). The 1134 fatalities of the 2013 Rana Plaza collapse in Dhaka (in what unions at the time called a 'mass industrial homicide'), have been linked to neoliberal policy and global supply chains that enable below-minimum wages, unsafe working conditions and coerced labor (Evans, 2016). Blanton & Peksen (2018) show how a pro-market policy environment, 'business-friendly' regulatory approach, openness to global trade and capital flows, and a smaller and less economically intrusive state, all affect the probability of major industrial disasters. Combining data on economic globalization with data on major industrial accidents, they examined the relationship between these variables across some 130 countries for the period 1971–2012. They found a significant positive relationship between economic globalization and the probability of industrial accidents. Their analysis shows how the impact of globalization, such as the removal of barriers to trade and capital flows, is stronger than that of trade and investment flows themselves.

The other side to this is that the probability of industrial disasters tends to decrease as countries progress toward becoming full democracies, since these have the stability, state capacity, transparency and greater participatory equality to compel the provision of safe work environments (Lin, 2015). In particular, freedom of speech is negatively correlated with industrial disasters. Civil society and a free press, and a legitimation of the 'voice from below,' can all hold corporations and states accountable (Blanton & Peksen, 2018). Neoliberalism and global capitalism, however, may have somewhat undermined democracy as the preferred, legitimate mode of governance (Kuttner, 2018), and the world has seen a trend toward autocratization (including in the US) in the last few years (Lührmann et al., 2018). Continually reasserting democratization, promoting higher standards of living (which we typically have capitalism to thank for), global union alliances, union-community coalitions, integrating non-governmental and advocacy organizations, targeting sponsorship-based employment that binds workers to an employer and imposes limits on the temporary migrant worker, and greater transparency are among proposed long-term antidotes (Lafferty, 2010).

5. Conclusion

This paper has offered a conceptual preview of safety after neoliberalism. It would look different in spirit and in substance from how we know safety management today. A vision for safety after neoliberalism, based on the sources above, would include:

- Deregulation and government retreat have dimmed, and more (detailed) internal compliance demands have become replaced by assurance and due diligence conducted on the basis of presence of measurable capacities to make things go right.
- Professional judgment has become trusted again and nudged the dominance of bureaucratic accountability aside, slimming the ranks of lawyers and administrative non-experts involved in safety management.
- Participatory equality has been bolstered, offering new kinds of bargaining power even in situations of precarious employment.
- The individualization of workplace risk has become replaced by collective responsibility for setting people and their work up for success, and by more fairly re-distributing work-related injury costs.
- Pro-market policy environments and global trade and capital flows no longer increase the probability of major industrial disasters because they are accompanied by equal demands for democratization and transparency.

Fundamentally, safety after neoliberalism has accepted that complex risks cannot be controlled by rule-based uncertainty reduction and constraining allowable human performance ever-further, but by

trusting and enabling practitioner decision discretion; by finding a new balance between written guidance and risk appetite, between professional judgment and risk competence.

References

- Albert, M., 1993. *Capitalism Against Capitalism*. Whurr Publishers, London.
- Almklov, P.G., Rosness, R., Storkersen, K., 2014. When safety science meets the practitioners: does safety science contribute to marginalization of practical knowledge? *Saf. Sci.* 67, 25–36.
- Amalberti, R., 2001. The paradoxes of almost totally safe transportation systems. *Saf. Sci.* 37 (2–3), 109–126.
- Amalberti, R., 2013. *Navigating Safety: Necessary Compromises and trade-offs – Theory and Practice*. Springer, Heidelberg.
- Ayers, F.G., Culvenor, J.F., Sillitoe, J., Else, D., 2013. Meaningful and effective consultation and the construction industry of Victoria, Australia. *Construction Management and Economics* 31 (6), 542–567.
- Beck, U., 1992. *Risk Society: Towards a New Modernity*. Sage Publications Ltd, London.
- Bieder, C., Bourrier, M. (Eds.), 2013. *Trapping Safety into Rules: How Desirable or Avoidable is Proceduralization?* Ashgate Publishing Co., Farnham, UK.
- Bier, V., Joosten, J., Glycer, D., Tracey, J., Welsh, M., 2003. *Effects of Deregulation on Safety: Implications Drawn from the Aviation, Rail, and United Kingdom Nuclear Power Industries*. Kluwer Academic Publishers, Dordrecht.
- Blanton, R.G., Peksen, D., 2018. Pro-market policies and major industrial disasters—a dangerous combination? *Sociol. Forum* 33 (1), 5–29.
- Braedley, S., Luxton, M. (Eds.), 2010. *Neoliberalism and Everyday Life*. McGill-Queen's University Press, Quebec.
- Bryson, A., Ebbinghaus, B., Visser, J., 2011. Causes, consequences and cures of union decline. *Eur. J. Ind. Relat.* 17 (2), 97–105.
- CAIB, 2003. *Report vol. 1, August 2003*. Retrieved from Washington, DC.
- Collins, R., 2013. *Losing Faith in Lost Time Injuries*. ASM, pp. 4–5.
- Cross, H., 2017. Neoliberalism, labour power and democracy: the sense of an ending. *Rev. Afric. Polit. Econ.* 44 (153), 353–357.
- Davies, B., Bansel, P., 2005. The time of their lives? Academic workers in neoliberal time (s). *Health Sociol. Rev.* 14 (1), 47–58.
- Deci, E.L., Ryan, R.M., Koestner, R., 1999. A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychol. Bull.* 125 (6), 659–672.
- Dekker, S.W.A., 2006. Past the edge of chaos. *Hum. Factors Aerospace Saf.* 6 (3), 235–246.
- Dekker, S.W.A., 2014a. The bureaucratization of safety. *Saf. Sci.* 70 (12), 348–357.
- Dekker, S.W.A., 2014b. *The Field Guide to Understanding 'human error'*. Ashgate Publishing Co., Farnham, UK.
- Dekker, S.W.A., 2015. *Safety Differently: Human Factors for a New Era*. CRC Press/Taylor and Francis, Boca Raton, FL.
- Dekker, S.W.A., 2016. *Just Culture: Restoring Trust and Accountability in Your Organization*. CRC Press, Boca Raton, FL.
- Dekker, S.W.A., 2018. *The Safety Anarchist: Relying on Human Expertise and Innovation, Reducing Bureaucracy and Compliance*. Routledge, London.
- Dekker, S.W.A., Pitzer, C., 2016. Examining the asymptote in safety progress: a literature review. *J. Occupat. Safety Ergon.* 22 (1), 57–65.
- Dinlersoz, E., Greenwood, J., 2016. The rise and fall of unions in the United States. *J. Monet. Econ.* 83 (10), 129–146.
- Du Gray, P., 2000. In *Praise of Bureaucracy: Weber, Organization, Ethics*. Sage, London.
- Edmondson, A., 1999. Psychological safety and learning behavior in work teams. *Adm. Sci. Q.* 44 (2), 350–383.
- Evans, E.A., 2016. *Globalized garment systems: theories on the Rana Plaza disaster and possible localist responses*. WWU Graduate School Collection. Western Washington University, Bellingham, pp. 485.
- Frederick, J., Lessin, N., 2000. The rise of behavioural-based safety programmes. *Multinat. Monit.* 21, 11–17.
- Galison, P., 2000. An accident of history. In: Galison, P., Roland, A. (Eds.), *Atmospheric Flight in the Twentieth Century*. Kluwer Academic, Dordrecht, NL, pp. 3–44.
- GAO, 2012. *Workplace safety and health: Better OSHA guidance needed on safety incentive programs (Report to Congressional Requesters, GAO-12-329) (GAO-12-329)*. Retrieved from Washington, DC: Government Accountability Office.
- Gelles, D., Kitroeff, N., 2019. *F.A.A. Leaders Face Scrutiny Over Boeing 737 Max Certification*. *New York Times*, pp. 7. Retrieved from <https://www.nytimes.com/2019/07/31/business/boeing-max-faa-senate.html>.
- Graeber, D., 2013. On the phenomenon of bullshit jobs. *Strike* 8, 10–11.
- Gray, G.C., 2009. The responsabilization strategy of health and safety. *Brit. J. Criminol.* 49, 326–342.
- Hale, A.R., Borys, D., 2013. Working to rule or working safely? Part 2: The management of safety rules and procedures. *Saf. Sci.* 55, 222–231.
- Hale, A.R., Swuste, P., 1998. Safety rules: Procedural freedom or action constraint? *Saf. Sci.* 29, 163–177.
- Harrison, S., Dowsell, G., 2002. Autonomy and bureaucratic accountability in primary care: what English general practitioners say. *Sociol. Health Illn.* 24 (2), 208–226.
- Hasle, P., Zwetsloot, G.I.J.M., 2011. Editorial: occupational health and safety management systems: issues and challenges. *Saf. Sci.* 49 (7), 961–963.
- Haugen, A.S., Softeland, E., Eide, G.E., 2013. Impact of the World Health Organization checklist on safety culture in the operating theater: a controlled intervention study. *Br. J. Anaesth.* 110, 807–815.
- Heather, S., Kearns, G., 2018. *Poll: Mining OHS Rules Polarise the Industry and Risk Friction*. Mining People, Perth, WA.
- Hollnagel, E., 2017. *Safety-II in Practice: Developing the Resilience Potentials*. Routledge, London.
- Hopkins, A., 2006. What are we to make of safe behaviour programs? *Saf. Sci.* 44, 583–597.
- HSE, 2018. *Workplace Fatal Injuries in Great Britain 2018 (V1 07/18)*. Health and Safety Executive, London.
- Jack, I., 2001. The 12.10 to Leeds. *Granta* 73 (1), 67–105.
- Jacobs, D., 2007. A catalyst for change in workers' compensation. *Prof. Case Manage.* 12, 357–361.
- Jacobsen, M. (Writer), M. Jacobsen (Director), 2017. *Safety Differently* [Documentary]. In: R. Miller (Producer). Brisbane: RideFree Media.
- Jacobsen, M. (Writer) & M. Jacobsen (Director), 2018. *Just Culture* [Youtube]. In B. Jaensch & M. Jacobsen (Producers). West End, Queensland: Ride Free Media.
- Kaplan, T., 2019, 26 March. *After Boeing Crashes, Sharp Questions About Industry Regulating Itself*. *New York Times*.
- Klein, G.A., 1998. *Sources of Power: How People Make Decisions*. MIT Press, Cambridge, MA.
- Kniesner, T.J., Leeth, J.D., 1995. Abolishing OSHA. *Regulation* 18 (4), 46–56.
- Kotz, D.M., 2002. Globalization and neoliberalism. *Rethink. Marxism* 12 (2), 64–79.
- Kuttner, 2018. *Can Democracy Survive Global Capitalism?* New York: Norton.
- Lafferty, G., 2010. In the wake of neo-liberalism: deregulation, unionism and labour rights. *Rev. Int. Polit. Econ.* 17 (3), 589–608.
- Lin, T.-H., 2015. Governing natural disasters: state capacity, democracy, and human vulnerability. *Soc. Forces* 93 (3), 1267–1300.
- Lührmann, A., Mechkova, V., Dahlum, S., Maxwell, L., Olin, M., Petrarca, C.S., Lindberg, S., 2018. State of the World 2017: autocratization and exclusion? *Democratization* 25 (8), 1321–1340.
- Masters, M.F., 1997. *Unions at the Crossroads: Strategic Membership, Financial, and Political Perspectives*. Greenwood Publishing Group, Westport, CT.
- McCord, P., 2017. *Powerful: Building a Culture of Freedom and Responsibility*. Silicon Guild, San Francisco.
- McIntyre, D., 2005. 'My way or the highway': managerial prerogative, the labour process and workplace health. *Health Sociol. Rev.* 14 (1), 59–68.
- Mintzberg, H., 2004. *Managers not MBAs: A Hard Look at the Soft Practice of Managing and Management Development*. Berrett-Koehler, San Francisco.
- Mogensen, V., 2003. The slow rise and sudden fall of OSHA's ergonomics standard. *WorkingUSA* 7 (2), 54–75.
- Montgomery, K., 2006. *How Doctors Think: Clinical Judgment and the Practice of Medicine*. Oxford University Press, Oxford, UK.
- Mourey, M., 2019. *Revolutionner la sante et la securite au travail: La nouvelle approche pour une gestion collective des risques dans l'entreprise*. Diatino, Paris.
- O'Neill, R., 2003. *Criminal neglect: How dangerous employers stay safe from prosecution*. WorkingUSA 7 (2), 24–42.
- Ogus, A.I., 2004. *Regulation: Legal form and Economic Theory*. Hart, London.
- Ostry, J.D., Loungani, P., Furceri, D., 2016. Neoliberalism: Oversold? *Finance Dev.* 52 (2), 38–41.
- Parrish, M., Schofield, T., 2005. Injured workers' experiences of the workers' compensation claims process: institutional disrespect and the neoliberal state. *Health Sociol. Rev.* 14 (1), 33–46.
- Perry, L.J., 2007. Neoliberal workplace reforms in the antipodes: What impact on union power and influence? *Aust. Rev. Publ. Affairs* 8 (1), 19–46.
- Pink, D.H., 2009. *Drive: The Surprising Truth about what Motivates Us*. Riverhead Books, New York.
- Power, M., 1999. *The Audit Society: Rituals of Verification*. Oxford University Press, UK.
- 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.
- Pupulidy, I., Vesel, C., 2017. *The learning review: Adding to the accident investigation toolbox*. Paper presented at the 53rd ESREDA Seminar, Ispra, Italy.
- Rae, A.J., Weber, D.E., Provan, D.J., Dekker, S.W.A., 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.
- Rasmussen, J., Jensen, A., 1974. Mental procedures in real-life tasks: a case study of electronic trouble shooting. *Ergonomics* 17 (3), 293–307.
- Reed, M.I., 2018. Elites, professions, and the neoliberal state: Critical points of intersection and contention. *J. Prof. Org.* 5 (3), 297–312.
- Roe, E., 2013. *Making the Most of Mess: Reliability and Policy in Today's Management Challenges*. Duke University Press, Durham, NC.
- Rolston, J.S., 2010. Risky business: neoliberalism and workplace safety in Wyoming coal mines. *Hum. Org.* 69 (4), 331–342.
- Saines, M., Strickland, M., Pieroni, M., Kolding, K., Meacock, J., Nur, N., & Gough, S., 2014. *Get out of Your Own Way: Unleashing Productivity*. Retrieved from Sydney, Australia: Deloitte Touche Tohmatsu.
- Saloniemi, A., Oksanen, H., 1998. Accidents and fatal accidents: some paradoxes. *Saf. Sci.* 29, 59–66.
- Saull, R., 2015. Capitalism, crisis and the far-right in the neoliberal era. *J. Int. Relat. Dev.* 18 (8), 25–51.
- Schofield, T., 2005. The impact of neoliberal policy on workplace health. *Health Soc. Rev.* 14 (1), 5–7.
- Schön, D.A., 1983. *The Reflective Practitioner*. Maurice Temple Smith Ltd., London.
- Sheratt, F., Dainty, A.R.J., 2017. UK construction safety: a zero paradox. *Policy Pract. Health Saf.* 15 (2), 1–9.

- Springer, S., Birch, K., MacLeavy, J., 2016. *Handbook of Neoliberalism*. Routledge, London.
- Suparamaniam, N., Dekker, S.W.A., 2003. Paradox of power: the separation of knowledge and authority in international disaster relief work. *Disaster Prevent. Manage.* 12 (4), 312–318.
- Tooma, M., 2017. *Safety, Security, Health and Environment Law*, second ed. The Federation Press, Annandale, NSW.
- Townsend, A.S., 2013. *Safety can't be Measured*. Gower Publishing, Farnham, UK.
- Vaughan, D., 1996. *The Challenger Launch Decision: Risky Technology, Culture, and Deviance at NASA*. University of Chicago Press, Chicago.
- Vaughan, D., 1999. The dark side of organizations: Mistake, misconduct, and disaster. *Ann. Rev. Sociol.* 25 (1), 271–305.
- Wailling, J., Marshall, C., Wilkinson, J., 2019. *Hearing and Responding to the Stories of Survivors of Surgical Mesh — Ngā kōrero a ngā mōrehu – he urupare*. Report for the NZ Ministry of Health, December 2019. Wellington, NZ: The Diana Unwin Chair in Restorative Justice, Victoria University.
- Watson, I., 2015. Wage inequality and neoliberalism: the Australian experience. *J. Ind. Relat.* 58 (1), 131–149.
- Weick, K.E., Sutcliffe, K.M., 2007. *Managing the Unexpected: Resilient Performance in an Age of Uncertainty*, second ed. Jossey-Bass, San Francisco.
- Woods, D.D., 2006. How to design a safety organization: Test case for resilience engineering. In: Hollnagel, E., Woods, D.D., Leveson, N.G. (Eds.), *Resilience Engineering: Concepts and Precepts*. Ashgate Publishing Co, Aldershot, UK, pp. 296–306.
- Woods, D.D., Dekker, S.W.A., Cook, R.I., Johannesen, L.J., Sarter, N.B., 2010. *Behind Human Error*. Ashgate Publishing Co, Aldershot, UK.
- Zwetsloot, G.I.J.M., Kines, P., Wybo, J.L., Ruotsala, R., Drupsteen, L., Bezemer, R.A., 2017. Zero Accident vision based strategies in organizations: innovative perspectives. *Saf. Sci.* 91, 260–268.