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Zero vision and a Western salvation narrative

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ABSTRACT

This paper sets the zero accident vision in the historical–cultural context of a Western salvation narrative, which suggests that a world without suffering is desirable and achievable. Tracing the development of what is an archetype in our thinking, it shows how a Western ethic typically ascribes moral responsibility for suffering (and its avoidance) to individuals' choices. If taken literally into a ZAV then this can paradoxically produce new kinds of suffering—for example, the sanctioning of workers involved in incidents. It can also create an illusory world without suffering by making suffering disappear from view (e.g., hiding incidents/injuries). Alternative readings of ZAV might suggest that suffering is inevitable and universal, and that human moral choice should focus on efforts to relieve its effects, rather than pretend that it can eradicate its causes.

"*You want if possible—and there is no madder 'if possible'—to abolish suffering…?*"
Friedrich Nietzsche, *Beyond Good and Evil* (par. 225, emphasis in original).

1. Introduction

In this journal recently, Zwetsloot et al. (2013) argued for a 'serious consideration' of the zero accident vision (ZAV) and the safety commitment practices it produces. As they demonstrated, our knowledge of what ZAV is, where it comes from and how it might or might not work has many gaps. In a sense, ZAV is still a 'black box.' Little is known about the exact activities and mechanisms that lie beneath the reductions in harm that committed companies have witnessed (Donaldson, 2013). Effectiveness of implementing the vision is not uniform. Negative consequences have been noted in this journal and elsewhere, such as excessive quantification and bureaucratization of safety (Dekker, 2014a; Hale et al., 2013), the manipulation of a dependent variable and concomitant suppression of incident and injury data, and investigations and improvement initiatives that may not have substantial effect (Dekker, 2014b).

The Zero Accident Vision does not necessarily mean a commitment to zero accidents at *all* levels of severity (Zwetsloot et al., 2013). Rather, it might cover severe accidents and implies that near-misses and minor accidents are not only inevitable, but important for learning from the everyday workings and failings of complex socio-technical systems. ZAV has this in common with most accident theories such as normal accident theory (Clarke and Perrow, 1996), man-made disaster theory (Pidgeon and O'Leary, 2000) and drift theories (Dekker, 2011a; Snook, 2000; Vaughan, 2005) which do not believe that a total zero vision—a world without accidents—is actually achievable. This goes for high-reliability theory as well (Dekker and Woods, 2009).

This paper is one response to Zwetsloot et al.'s call for a 'serious consideration' of ZAV, exploring some of the cultural–historical basis of what amounts to an 'archetype' in Western thinking. It locates the commitment to a zero vision inside what is known as the salvation narrative—the notion that a world without suffering is not only desirable but achievable, and that efforts expended toward that goal are morally right and inherently laudable.[1] The paper sketches, in broad and brief strokes, a line from Weber back

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[1] The Western salvation narrative, as considered in this paper, is a product of Judeo-Christian thinking—the tradition that gave the West (even if largely secularized today) much of its ethical code. This paper categorically does not wish to impugn the truth or validity that people might read into this tradition, nor the faith which impels them to act morally. It attempts a weak and distant form of exegesis, the time-honored critical explanation and interpretation of texts that stem from that, and alternative, traditions.

through Calvin and Augustine, to the Judeo-Christian origins of Western thinking about suffering and salvation. Of course, ZAV owes its origins in the West from more than just Judeo-Christian thinking. It is possible, for instance, to seek its roots in ancient Greek ideas about guilt, cause and effect, and harmony. Thus, this paper illuminates just one of the pathways by which ZAV might have become enabled and reified. It contributes to the discussion one example of ZAV as historically and culturally contingent—the product of social constructions that have established it as a culturally and managerially legitimate reading of suffering and salvation today. Other readings are possible too, of course, some of which carry different, and possibly more humane, implications for organizational or managerial commitments.

2. Rational choice and blaming the worker

Rational choice theory—the premise that people who face a decision choose among fully reasoned alternatives—remains dominant in safety work (Dekker, 2011a; Orasanu and Connolly, 1993), keeping the focus on the actions or omissions of frontline operators. As could be found in the pages of this journal not long ago:

> It is now generally acknowledged that individual human frailties … lie behind the majority of the remaining accidents. Although many of these have been anticipated in safety rules, prescriptive procedures and management treatises, people don't always do what they are supposed to do. Some employees have negative attitudes to safety which adversely affect their behaviours. This undermines the system of multiple defences that an organisation constructs and maintains to guard against injury to its workers and damage to its property (Lee and Harrison, 2000, pp. 61–62)

In a review of the patient safety literature, as another example, 98 of the 360 articles reviewed addressed the individual, focusing for example on human error (Waterson, 2009). Between 1999 and 2006, 96% of US aviation accidents were attributed in large part to the flight crew. In 81%, people were the *sole* reported cause (Holden, 2009). Accident probes often conduct analyses of people's decision making as if it were driven by rational, fully informed choices, concluding that they either must have been amoral calculators who prioritized production or personal goals over safety (Vaughan, 1999) or made shortcuts that are popularly called "violations" (Reason, 1990). "Unsafe acts," a term originally coined by Heinrich in the 1930s, remains a central concept in the Swiss Cheese Model widely used today, reifying the belief that things ultimately don't go wrong (however the odds are stacked up) until and unless a frontline worker "adds the final garnish" (ibid, p. 173).

This has managerial and policy implications for zealously implemented "zero" programs. Consider the example of a food warehouse, where 150 workers load and unload trucks, lift boxes, drive fork trucks, and move pallets. Each month that no one reports an injury, all workers receive prizes, such as $50 gift certificates. If someone reports an injury, no prizes are given that month. Management then added a new element to this "safety incentive" program: if a worker reported an injury, not only would co-workers forgo monthly prizes but the injured worker had to wear a fluorescent orange vest for a week. The vest identified the worker as a safety problem, and alerted co-workers: he/she lost you your prizes (Frederick and Lessin, 2000). It is an example of what has been noted, in some countries, as a neo-liberal trend toward worker "responsibilization." A recent Canadian study shows how workers themselves are increasingly blamed (sanctioned, ticketed) for safety violations, with over two thirds of all citations handed out by workplace safety inspectors directed at them rather than the organization (Gray, 2009). Workers are "instructed to become prudent subjects who must 'practice legal responsibility'"

(p. 327). And if they don't, "the failure to practise individual responsibility in the face of workplace dangers is often used to explain why workers who perform unsafe jobs become injured" (p. 330). The premise of full rationality and workers who have their own choices to blame when things go wrong juxtaposes with safety science research. This generally stresses the influence of context on human action, as well as the role of others in creating the conditions for success and failure in complex systems (Dekker et al., 2011). That attempts at implementing ZAV keep gravitating toward frontline worker rational choice assumptions (they "don't always do what they are supposed to do") says something about the vocabulary and methods of safety science itself, of course (Dekker, 2011b). But these in turn derive from a cultural–historical heritage that goes much further than that.

3. Augustine and Calvin

The notion that suffering results from human moral choices has a long historical shadow in the West. Of course, most cultures have evolved allegories about the sources of suffering, which often coincide or are linked with those of their own birth. Many start with human beings living in close intimacy with the divine. In a blissful initial state, there is no ontological divide, but instead complete harmony with nature and each other—and no suffering. Storytellers may have invoked these images to reassure people that life was not meant to be so painful, so separated. Then, typically, follows a separation. The allegory of Adam and Eve who inhabit the Garden of Eden (placed second among more than twenty creation stories that can be found in the Judeo-Christian bible alone, but likely the oldest one, from around 1000–900 BCE) follows this script. But it does so with a major distinction from similar contemporary accounts (e.g. the Babylonian Epic of Gilgamesh). The Judeo-Christian account places moral responsibility for that separation (and humanity's subsequent introduction to suffering) on the human; on human responsibility for violating a trusting relationship with the divine (Armstrong, 1996; Visotzky, 1996). Such, in any case, is the reading by Augustine of Hippo (354–430 CE). His "theodicy" (or justification of a divine existence despite the presence of evil and suffering in the world) answers the question of why we suffer by explaining that evil is the result of human free will, and that sin corrupts essentially good humans. Writing in the early fifth century BCE, Augustine argued that:

> …when an evil choice happens in any being, then what happens is dependent on the will of that being; the failure is voluntary, not necessary, and the punishment that follows is just (Yu, 2006, p. 129).

Suffering, in this reading, is caused by bad human choices; it is the just retribution that follows on such choices. Suffering is not inevitable, it hinges on rational human choice. Calvin (1509–1564), instrumental in shaping much of the recent West's interpretation of Judeo-Christian history and ethics, relied heavily on Augustinian theodicy. In *The Bondage and Liberation of the Will* (1543), a publication that mainly addresses the freedom of human will and human choice, Calvin includes many citations from Augustine—significantly more than from any other patristic authors (e.g. Tertullian, Pelagius), agreeing on the essential links between human choice, sin and evil.

4. Weber

Sociologist Max Weber (1864–1920) identified the problem of suffering as the 'driving force of all religious evolution' (Weber et al., 1950). When a culture reached the aporia of the 'brute fact that suffering exists,' it tended to produce forms of metaphysical rationality and meaning-making that could accommodate that fact,

he suggested. But then, Weber observed, people no longer believed in providence (the protective care of the divine) when the imbalance of the world's injustices became too great. His view has been linked to Nietzsche's 1882 pronouncement of 'the death of God.' It made Weber recognize suffering as a determinant of people's cultural reality; a force for social change and cultural innovation able to shape interpretations of and actions in the environments in which they worked and lived (Wilkinson, 2005). Weber coined the term 'Protestant ethic' in 1904. It is the view that a person's duty is to achieve success through individual hard work, commitment, diligence, engagement and thrift, and that such success is a sign of salvation. Modern capitalism, Weber argued, emerged from this ethic, affirming that suffering can be relieved by good choices, and by hard work. This would seem to suggest that the ZAV, or a stated goal of working without any bad consequences in general, uses quasi-religious means to achieve normative control. This is perhaps more pronounced in North America, which Weber himself alluded to when he reflected on its "paradoxical linking of spiritual ideals with material ambitions" (Scaff, 2011, p. 284). As one example, consider a reflection on the 1986 Challenger Space Shuttle accident, and the prescription to prevent a next accident like it.

Van den Hoven (2001) called the environment in which engineers would have been working at the time "the pressure condition," (p. 3) where they are embedded in a narrow "epistemic niche." They can only know so much about their world at that time. All their rationality is local: based on people's knowledge, understanding and goals at the time, not based on some universal ideal overview of all the possible pathways and risks associated with them. As a result, Claus Jensen, in his review of the accident, wondered whether there still is:

> any point in appealing to the individual worker's own sense of responsibility, morality or decency, when almost all of us are working within extremely large and complex systems ... According to this perspective, there is no point in expecting or demanding individual engineers or managers to be moral heroes (Jensen, 1996, p. xiii).

Some in North America, consistent with Weber's observation, strongly believe that there is such a point. Speaking to those engineers' actions leading up to the same accident, Feldman (2004) invoked the unique fiduciary relationship in which the expert understands something that others do not. This supposedly full, or at least fuller, rationality places a higher moral burden on that expert: the burden to speak up, to act in accordance with a harm prevention ethic, to explain what happened or warn about what might happen, even under the threat of sanctions if you don't:

> Engineering societies need to require engineers to act in accordance with the prevent-harm ethic. This requirement must include both training to inculcate the prevent-harm ethic and sanctions—up to losing one's license—when the ethic is violated (p. 714).

As Silbey (2009) remarked, such an exhortation "can be usefully understood as a way of encouraging and allocating responsibility ... Invoking [it] as both the explanation and remedy for technological disasters obscures the different interests and power relations enacted in complex organizations [and] focuses attention primarily on the low-level workers who become responsible, in the last instance, for organizational consequences, including safety" (p. 343). Interestingly, calls for the empowerment and legitimation of organizationally less powerful groups also amount to a kind of Weberian moral script. This might include Crew Resource Management training in aviation, or assertiveness training for operating theatre nurses and oil platform workers. They put the burden to speak up (and blame for the failure to do so) on the individual who didn't try hard enough to be heard in her or his efforts to forestall disaster (Dekker and Nyce, 2014).

Around the time of Weber's work (late 19th–early 20th century), a strong work ethic and subsequent success were seen as signs of salvation; as a relief from suffering. It fulfilled the Western salvation narrative through a secular paradigm of individualism, rational choice and consequentialism. That is, individual workers were responsible for the creation of their own salvation; their own choices determined their success at this; and their actions got measured by the consequences, the outcome. A return to Eden may be difficult, but a world without suffering is a proper aspiration, as it hinges in large part on our own efforts (Pagels, 1988). Weber articulated links between such beliefs about suffering, salvation and organizational practices that reverberate even in our time (Weber et al., 1950). For Weber, the continued attempt at relief from, suffering "is still present and pervades contemporary organization and management...though today it is rarely referred to in religious terms, nor typically called salvation" (Dyck and Wiebe, 2012, p. 300).

But can implementation of ZAV, driven ultimately by Augustinian theodicy, Calvinistic application and Weberian ethic, paradoxically produce more suffering? Some in safety–critical industries, as Leape would put it, have "come to view an error as a failure of character—you weren't careful enough, you didn't try hard enough." (1994, p. 1851). That means suffering is not relieved but inflicted by blaming or mocking the victim. It tends to create adversarial workplace relationships and erode trust (Deming, 2000). ZAV, in other words, when enacted as a late modern form of the Protestant ethic (where workers' own moral choices are seen as responsible for their avoidance or creation of suffering) can paradoxically contribute to new forms of suffering. This is not helped by a zealous focus on the reduction of incident and injury *rates* (rather than on the reduction of actual suffering from incidents, injuries and accidents). As an example, a Louisiana man was recently imprisoned for lying about worker injuries at a local power utility in Tennessee and Alabama between 2004 and 2006, which allowed his company to collect $2.5 million in safety bonuses. The 55-year old, who was safety manager for a construction contractor, was sentenced to 6.5 years prison followed by two years of supervised release. More than 80 injuries were not promptly recorded, including broken bones, torn ligaments, hernias, lacerations and injuries to shoulders, backs and knees. The construction contractor paid back double the bonuses (Anon., 2013). The Head of the US Occupational Safety and Health Authority later commented,

> This case shows the destructive consequences that purely rate-based incentive programs can have. Far from promoting safety, the bonus led to a systematic effort to conceal injures. Injured workers were denied or delayed medical treatment. Underlying workplace safety issues went unaddressed (ISHN, 2013, p. 1).

What this example shows is that the archetypical promise of a world without suffering can simultaneously produce suffering *and* hide it from view (GAO, 2012).

5. Alternative visions of suffering

Most religious traditions are concerned with suffering as both inevitable and universal (Berlinger, 2003; Ingram and Loy, 2005). Rather than relieving suffering by trying to "*abolish*" it (as Nietzsche mocked), they might call for the relief of suffering by compassion or, literally, 'suffering with.' There is much to be found in the Judeo-Christian tradition that makes precisely this plea, and many examples in the writings from evangelists, apostles, psal-

mists and prophets alike. Here is an example from another tradition:

> The Buddha once comforted a suffering mother who had lost her child, by asking her to find a mustard seed from a family that had not suffered from losing a relative. The mother, who failed to find such a family, realized the universality and inevitability of suffering. She eventually became one of the Buddha's foremost disciples, filled with compassion in helping others (Yu, 2006, p. 151).

Such images of suffering, and calls to compassion, open up a different or complementary avenue for ZAV implementation. It can already be found in recent work on 'second victims,' for instance. These are workers involved in an incident that (potentially) harmed or killed others, and for which they feel guilty and responsible (Dekker, 2013; Seys et al., 2013). Their suffering has been likened to post-traumatic stress (Scott et al., 2009), a disorder which is currently acknowledged to be incurable—but manageable with proper intervention (Frances et al., 2005). In other words, it is the sort of suffering that is inevitable, but for which relief can be brought. Programs for critical incident and stress management, for example, try to do exactly that by prescribing repertoires of psychological first aid, debriefings, and follow-ups (Leonhardt and Vogt, 2006). Policies and protocols for this are well-tested and developed by now (e.g., Eurocontrol, 2008), though they lack implementation in many fields partly because of the preoccupation with attempting to abolish the causes of suffering, rather than alleviating its effects.

6. Conclusion

What this might inspire us to 'seriously consider'—to speak with Zwetsloot et al. (2013)—is that a zero vision does not necessarily have to translate into an eradication of the incidents that cause suffering. It can also translate into a commitment to alleviate the suffering that remains inevitable; the unrelenting residue of harm that remains even *after* we have implemented all safety measures we know we should. Such suffering should be addressed by showing compassion and support. This will produce rather different (perhaps more humane) commitment practices—concentrated on seeing the human behind the worker, on disclosure and forgiveness, on consolation, reassurance, restoration and enhancing individual people's resilience. It is a zero vision directed not at the causes of suffering, but at its effects. Making those effects go away, or alleviating them by offering solidarity, humanity, integrity and collegiality, is within our power. In addition, investing in the resilience and recovery of workers in this way is likely linked to the resilience of the organization as a whole. The lived experience of these workers, after all, offer a rich trove of data. If such suffering is recognized and acknowledged, then much can be learned about the goal conflicts, hidden incentive structures, pressures and commitments that drive real work in the organization. These are the experiences, in other words, that allow us to discover and honestly discuss the sorts of situations that a ZAV ultimately seeks to identify and counteract.

Here are some ways in which decision makers in safety and elsewhere in organization can reorient themselves with respect to ZAV:

- ZAV as applied to all incidents and injuries (some organizations still declare that "all injuries are avoidable") likely increases suffering and extends it. It invites much trickery and fraud with numbers (as per the example in the paper above) and denies the reality of suffering of workers (some have been seen wearing their own first-aid kits, in order to not have to report an injury but fix themselves up instead).
- This is not helped by a zealous focus on the reduction of incident and injury *rates* (rather than on the reduction of actual suffering from incidents, injuries and accidents).
- ZAV might give us the impression that we need to abolish the causes of suffering, rather than alleviating its effects. As argued above, a world or workplace without suffering is probably not possible, but a world (or indeed workplace) with compassion and forgiveness is.

Acknowledgment

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