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Cold comfort firm[†]: Lean organisation and the empirical mirage of the comfort zone

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15 This paper examines the provenance of the ‘comfort zone’ and argues that the claimed organisational and psychological benefits associated with moving outside this zone are illusory and unsupported by empirical evidence. Indeed, it will be suggested that such rhetoric, and the lean management practices it has informed, is based on a misreading of the theoretical models and findings from which it is derived. It is argued that this misreading reinforces a style of management based on the deliberate inducement of stress amongst employees in lean organisations. The paper concludes by considering if, how, and what employees might be able to recover from this double bind.

20 **Keywords:** comfort zone; lean organisation; stress; eustress; Yerkes–Dodson law; workplace bullying

25 **Introduction**

30 The past 25 years or so have witnessed something of a sea-change in the way many private and public organisations are structured. Carter et al. (2011, 84) argue that this has arisen as a response to ‘regulatory change in the political and economic environment, an intensification of capitalist competitive pressures and the imperatives to cut costs and increase profitability’. Research conducted in the USA, UK, Japan, and Australia suggests that a significant number of work organisations remain committed to a strategy of cost-cutting and performance improvement, and regard downsizing as the most appropriate strategy for turning around the fortunes of a declining company (Ahmakjian and Robinson 2001; Baumol, Blinder, and Wolff 2003; Innes and Littler 2004). Additional cost savings are also gained from adopting additional elements of ‘leanness’ (Womack, Jones, and Roos 1990) such as removing the ‘fat’ of bureaucracy, and reducing inventory sizes, throughput times and employee ‘downtime’.

35 Managerialist proponents of this new wave of downsized, flexible, lean, tightly coupled high-performance work systems (Hammer and Champy 1993; Womack and Jones 1996) offer a vision of employees freed from the ‘mind-numbing stress’ (Womack, Jones, and Roos 1990, 102) associated with bureaucracy and mass-production, reaping the benefits of empowerment, creative challenge, and job satisfaction.

45 [†]The title is a wordplay on ‘Cold Comfort Farm’ a comic novel by Stella Gibbons, published in 1932, which relates the attempts made by a level-headed urban woman to reorganise and modernise the badly managed farm owned by her relatives.

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50 Academic researchers, on the other hand, paint quite a different picture and associate
such lean management techniques and related forms of performance control with man-
agement by fear (Harrison 1997; Taylor et al. 2012), management by stress (Parker and
Slaughter 1995), workplace tyranny (Taylor 2013), and labour intensification (Carter
et al. 2011). In attempting to make sense of the disjuncture between the rhetoric and
55 reality of working within such systems, this paper examines the assumptions about
employee performance management made by proponents of lean, high-performance
systems with particular emphasis on their conceptualisation of the employee
'comfort zone'.

This paper is therefore concerned with comfort and recovery. Both terms have their
60 etymological roots in the notion of gaining strength. To 'recover' is to regain one's
strength; whilst the verb 'comfort' derives from the Latin 'confortare', meaning to
strengthen (the noun 'discomfort' equating with being deprived of strength or
courage). However, there is now a growing body of evidence suggesting that lean
high-performance systems can be detrimental to employees' mental and physical
65 well-being (Jackson and Mullarkey 2000; Anderson-Connolly et al. 2002; Stewart
et al. 2010; Carter et al. 2011). To put it simply, these systems often create an uncom-
fortable work environment marked by high levels of stress, fear, and bullying. In the
context of this paper, organisational recovery is interpreted as the need to ameliorate
the conditions that produce these high levels of discomfort. What this paper will
70 show is that the successful implementation and operation of these systems is predicated
upon the deliberate manipulation of employee discomfort by management in order to
take employees out of their 'comfort zone' (Bardwick 1991; Hamel and Prahalad
1996; White 2009). Indeed, the failure to take employees out of this zone is blamed
explicitly for failed implementations of lean systems (Dervitsiotis 2003) as well as
75 for failures in knowledge transfer (Andrews and Delahave 2000; Yih-Tong Sun and
Scott 2005) and innovation (McCrimmon 1995; Russell 1999).

But what is a 'comfort zone' and why is it perceived to be a barrier to organisational
leanness and high performance? As Bissell (2008) has noted, despite its roots in the
80 notion of inner strength and courage, social scientists tend to read 'comfort' as a
rather conservative word – one equated with complacency and a disinclination to
explore new ideas or question extant social norms. For example Oswick, Keenoy,
and Grant (2002, 301) opine that if management researchers remain in their 'cognitive
comfort zone' they will be unlikely to produce 'generative, transformative, and frame-
breaking insights'. Conversely, going outside one's comfort zone is a positive act indi-
85 cating 'a willingness to be productive, characteristic of Western individualism, not to
mention the aesthetico-political impulses of the avant-garde' (Bissell 2008, 1697).
This latter view is reflected in mainstream change management literature (O'Toole
1995) where remaining in one's comfort zone is equated with staying still, with immo-
bility, and an unwillingness to be more productive.

90 This paper examines the provenance of the 'comfort zone' and argues that the
claimed organisational and psychological benefits associated with moving outside
this zone are illusory and unsupported by empirical evidence. Indeed, it will be
suggested that such rhetoric, and the lean management practices it has informed, is
based on a misreading of the theoretical models and findings from which it is
95 derived. It is argued that such a reading reinforces a management style based on the
deliberate inducement of stress amongst employees in lean organisations. The paper
concludes by considering if, how, and what employees might be able to recover
from such a double bind.

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The comfort zone

White (2009) argues that the origins of the phrase ‘comfort zone’ are very hard to trace and suggests that its earliest usage in relation to performance is in the title of Bardwick’s (1991) book *Danger in the Comfort Zone: From Boardroom to Mailroom – How to Break the Entitlement Habit that’s Killing American Business*. This observation is interesting for two reasons. First, as White himself admits, the phrase is never defined or even used in the text of Bardwick’s book and, second, the provenance of the phrase can readily be traced to a paper by Houghten and Yagaloglou (1923) entitled *Determination of the Comfort Zone* which examines the optimal office environmental conditions that support employee comfort and productivity. This paper makes an empirically supported case for keeping employees *within* their comfort zone. Unfortunately, as we shall see later, the literature on the comfort zone is noticeable for its reticence to define its key terms or explore the provenance of the term. Mindful of the former criticism, White (2009, 1) offers a useful definition of the comfort zone as ‘a behavioural state within which a person operates in an anxiety-neutral condition, using a limited set of behaviours to deliver a steady state of performance, usually without a sense of risk’. He then elaborates a ‘comfort zone theory’ which states that ‘to move a person out of their comfort zone and so enter the optimal performance zone, then an increase in stress is needed and the person’s manager must find the most appropriate way of achieving this’ (White 2009, 11). This is illustrated in Figure 1.

Readers familiar with contemporary management and organisational behaviour textbooks will recognise this figure as an annotated version of what is commonly referred to as the Yerkes–Dodson Law or Inverted-U curve (Rollinson 2008, 276; Buchanan and Huczynski 2010, 567; Robbins and Judge 2011, 647) which posits that ‘some stress is necessary for optimal performance and stress levels below or above this optimal level are detrimental to performance’ (Muse, Harris, and Field 2003, 359). In your comfort zone you experience little or no stress but are bored and under-stimulated. Increasing stress levels to a moderate level produces optimal

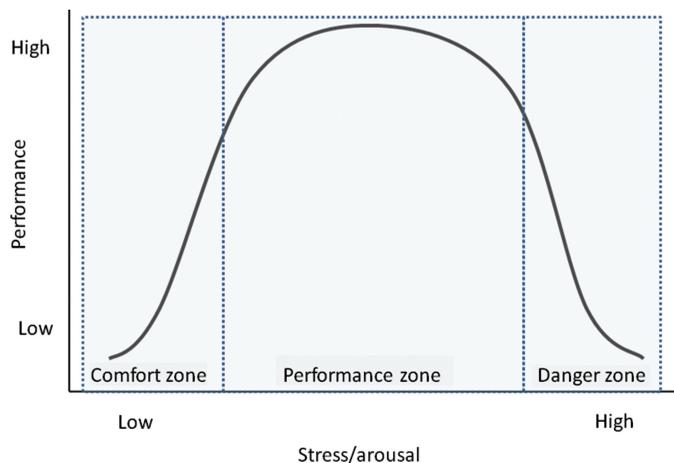


Figure 1. Zones of performance.

performance, but if stress levels are too high then performance (along with physical and mental health) deteriorates.

150 Based on this model of stress, comfort zone theory is premised on three key assumptions:

- (1) Comfort involves a fairly static and limited set of behaviours that are anxiety-neutral.
- 155 (2) ‘Optimal performance’ is achieved when a person moves out of their comfort zone.
- (3) Management’s role is to induce a certain level of stress or arousal in the workplace in order to move employees out of their comfort zone and towards ‘optimal performance’.

160 These assumptions lie at the heart of lean high-performance system thinking as well as many ‘best practice’ models of corporate change (Carnall 2007; Cameron and Green 2009; Hayes 2010) and are therefore worth examining in more detail.

165 **Comfort zone theory assumption 1: comfort involves a fairly static and limited set of behaviours that are anxiety-neutral.**

Crucial to the rhetoric of ‘moving outside one’s comfort zone’ is the notion that being comfortable is tantamount to being complacent, immobile, or idle. From this perspective feeling comfortable equates to a lack of motivation or aspiration to move beyond a limited set of behaviours. Such a notion assumes that being comfortable requires little mental or physical effort. Yet this does not mean that no agency or effort is required to achieve and maintain comfort. As Bissell (2008, 1707) opines: ‘[w]hat seems to be omitted from much of the literature that discusses corporeal comfort is the temporal sustainability of corporeal comfort. Comfort, far from an inert sensibility, is never stable and the complex of affective sensations associated with being comfortable is always at risk of transformation’. In Bissell’s view discomfort is contained within and is immanent to comfort and hence bodies slide between these two affective sensations over time. Bissell offers the quotidian example of getting comfortable and sustaining comfort whilst sitting on a chair – an act which often requires fidgeting and a complex choreography of gestures to redress the balance between comfort and discomfort. Thus ‘even the stillest body is always to a degree a fluid, moving, shifting configuration’ (Bissell 2008, 1708). Conversely, bodily discomfort (particularly that associated with pain) is often reduced through sustained physical activity and movement (McCaffery and Wolff 1992). One can also add that such a choreography of gestures is not enacted in a socio-cultural vacuum. To give just one example: the pioneering work of Mauss (1976) on techniques of the body shows how corporeal movement and gestures are crucial to the social construction of the body and the perpetuation of the cultural and social practices which they reflect and reinforce. What is particularly noteworthy here is Mauss’ argument that the techniques different societies and cultures concoct (such as sitting on a chair) are ‘efficient’ modes of social conditioning ‘not because they are harmonious with physiological givens (they avoid producing strain or injury) but rather because they fulfil other social requirements, such as ensuring hierarchies or establishing gender distinctions’ (Carrie 2009, 27).

195 Given that these socio-cultural techniques delimit the range and types of movements or gestures that are socially acceptable in the attainment of comfort, feeling

comfortable is also implicated through the discursive constitution of subjectivities. Comfort ‘signifies the comfort one feels from the degree of fit between the outside of one’s body and its inside (not blood, guts, or organs, but the “imagined” or “true” self) – the way in which identity is mapped onto the body. Comfort means in this case expressing externally that which one feels inside. In other words, there is a wish to close the gap between performance (*acting*) and ontology (*being*), a desire to be self-present to both oneself and others’ (Holliday 1999, 481).

This performative aspect of comfort – feeling comfortable in your own skin – is well documented in research on emotional labour (inspired by the seminal work of Hochschild [1983]) and on subjectivity at work (see Mansfield [2000] for an insightful overview). Emotional discomfort often develops when an organisation’s rules of performance or emotional propriety deviate from customary societal norms of behaviour or from employees’ own feelings. Coping with this discomfort requires the development of considerable emotional self-management skills on the part of the employee. What emerges from emotionality at work research is an understanding of how ones ‘sense of self is malleable and multifaceted, rather than arranged in different, hierarchical, layers of authenticity’ (Fineman 2000, 6) and how seemingly simple and routine work behaviours comprise a complex set of physiological and psychological behaviours which continually change from moment to moment. As Hochschild’s (1983) study of flight attendants illustrates, such behaviours are, to use Feldman’s (2000, 613) words, ‘emergent accomplishments’ involving ‘flows of connected ideas, action, and outcomes’.

The first assumption of comfort zone theory – that comfort involves a fairly static and limited set of behaviours that are anxiety-neutral – would therefore seem to have little or no validity. Comfort zones can be very busy and challenging places that are continually being re-shaped and reconfigured in response to changing circumstances and demands. ‘In other words, even the most allegedly stable parts of organisations, such as routines, are potentially unstable – change is always potentially there if we only care to look for it’ (Tsoukas and Chia 2000, 568).

However, the appeal of this assumption to managers is not difficult to discern as it legitimates the belief that employees need to be managed. Following the logic of Scientific Management, employees are seen as likely to engage in systematic ‘soldiering’ (Taylor 1911, 28) if left without managerial guidance and control. There is also an aesthetic dimension to the denigration of comfort implied here. Locating the rhetoric of downsizing and the lean organisation in the performative, instrumental logic of capitalism as well as in the shift in corporate/corporeal norms allied to the ‘aesthetic economy’ (Böhme 2003), Tyler and Wilkinson (2007, 537) argue that it serves ‘to reify organizations, imbuing them with anthropomorphic qualities and locating them in the same ontological space as those subject to them, at the same time as de-humanizing the latter, reducing them to “corporate fat” (Cameron, Freeman, and Mishra 1991)’. This changing discourse of health equates the comfortable, immobile, anxiety-free body with obesity, lack of self-control, and laziness, and is demonised as such. Such a discourse also shifts the meaning of comfort from its verb form (to help or strengthen) to a noun or adjective implying the acquisition of the non-essential and often also the detrimental (e.g. comfort eating).

Comfort zone theory assumption 2: ‘optimal performance’ is achieved when a person moves out of their comfort zone.

Equating with Womack, Jones, and Roos’s (1990, 102) concept of ‘creative tension’ (as distinct from the ‘mind-numbing stress’ they associate with bureaucratic and routinised

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work) this assumption is fundamental to the theory and practice of lean high-performance work systems and so it may come as a surprise to some readers to learn that it is derived from the findings of a research paper published in 1908 by two animal behaviourists, Yerkes and Dodson, working at Harvard University. Somewhat ironically, the subject of their experiments was a rodent – the Japanese dancing mouse – noted for its inability to stay still even when seemingly in an anxiety-neutral behavioural state. Yerkes confessed that ‘in no animal with which I am familiar is activity so much an end in itself as in this odd species of mouse’ (1907, 59).

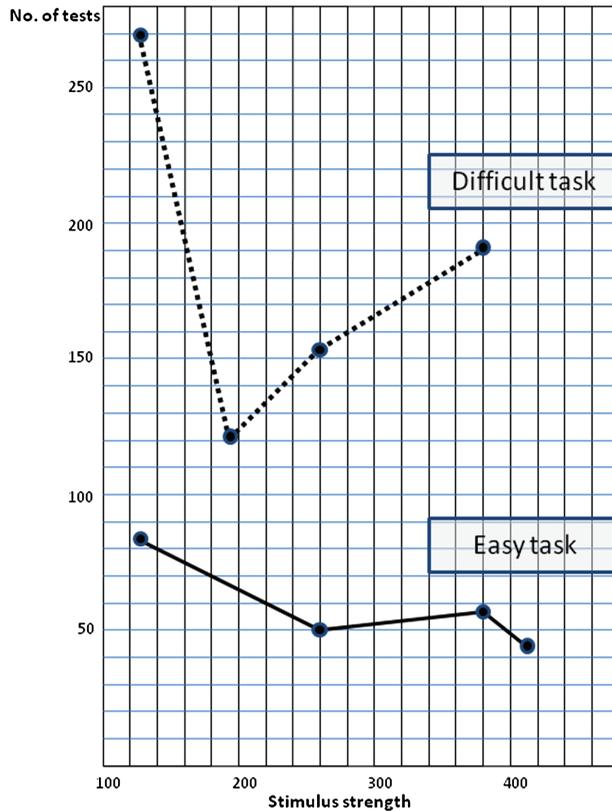
Yerkes and Dodson (1908) conducted a series of behaviour modification experiments with dancing mice evaluating the speed with which they learned to discriminate between a white box and a black box in relation to the levels of electric shock administered when they chose the wrong box. Their paper provoked little interest until the publication of a paper by Broadhurst nearly 50 years later entitled *Emotionality and the Yerkes–Dodson Law*. Quite why Broadhurst (1957) elevated the original experimental findings to the status of a scientific law is unclear as he does not cite any other studies (replicative or otherwise) and Yerkes and Dodson certainly made no such claim for their findings.¹ What is clear is that Broadhurst’s definition of this ‘law’ – ‘optimum motivation for a learning task decreases with increasing difficulty’ (Broadhurst 1957, 345) – stems from a mis-reading of the original 1908 paper.

Yerkes and Dodson’s research examined the relationship between stimulus strength (electric shocks) and habit formation (speed of learning) and, whilst finding that learning under the threat of ‘moderate’ shock was better than ‘mild’ or ‘extreme’ shock, they also found a positive *linear* relationship between the two variables in the performance of simpler discriminatory tasks (i.e. the more significant the shock the faster the mouse learned). Figure 2 illustrates these findings and reveals that moderate levels of ‘stimulation’ do appear to improve performance (measured as the number of tests it takes before the mouse has learned to make the right choice of box). But what is perhaps more interesting about this figure is how markedly it differs from the way their findings are invariably depicted as an inverted U-curve in today’s management textbooks.

Unlike Yerkes and Dodson, Broadhurst (1957) examined how the length of time an albino rat was forcibly submerged under water by the experimenter (‘motivation’) affected its subsequent swimming speed (‘performance’) across a water tank. Despite claiming that his results replicated those of Yerkes and Dodson, Broadhurst employed quite different terminology (e.g. ‘motivation’ rather than ‘habit formation’); he took no account of task difficulty, and his findings have a rather different look from that of the original 1908 experiment (Figure 3). Nevertheless, when the Yerkes–Dodson Law was subsequently represented as a graph, Broadhurst’s r-curve took on the now familiar symmetry of an inverted U, and later researchers – or what Hanoch and Vitoch (2004, 430–431) term ‘U-entranced successors’ – ‘let the law collapse into one single curve with its idealised and highly abstract, quasi-unidimensional axes’. Most notable amongst these successors was the endocrinologist Selye (1956, 1987) who published over 1500 papers and 30 books on stress, and, as Staal (2004) has shown, his work on ‘Global Adaptation Syndrome’ and ‘eustress’ strongly reinforced belief in the veracity of the inverted-U curve.

By the end of the twentieth century the lawful inverted U-curve had entered into an impressive array of academic subjects, most notably economics (Kuznets 1955), aesthetics (Berlyne 1971), the psychology of emotion (McClelland 1987), and behavioural neuroscience (Spear 2009). In short, the exploratory work of Yerkes and Dodson has been transformed into a ‘black box’ so widely accepted that it is now seen as a

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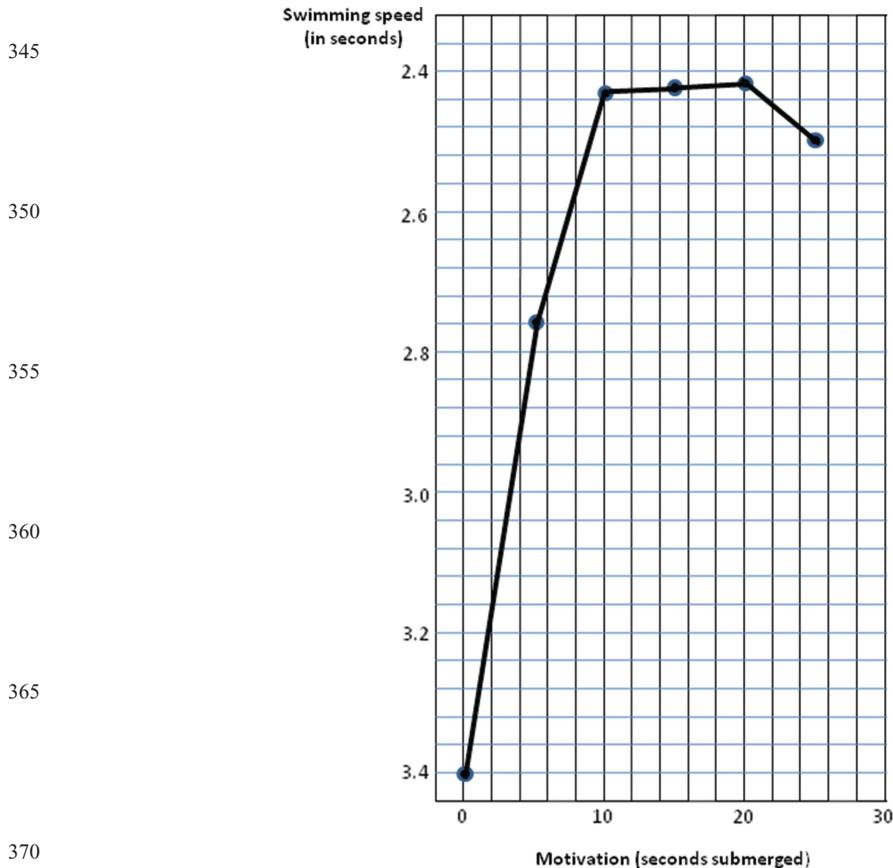
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Figure 2. Yerkes and Dodson’s (1908) original findings.

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matter of fact. ‘Using the language of Latour and Woolgar (1986), black boxes are established – or ordinary statements turned into universal facts – through the “deletion of modalities” such as those identifying time, context, or other factors that bound statements by particularities’ (Moran 2005, 214). From this constructivist perspective facts do not ‘speak for themselves’ but are produced and interpreted within sociopolitical contexts. We will return to this later in the paper. However, first, let us see what the facts have to say for themselves within their own particular empirical context. What evidence is there to support the curvilinear relationship between stress and optimal performance and particularly the idea that ‘optimal performance’ is achieved when a person is moved out of their comfort zone?

Leaving aside for a moment the methodological flaws which have long been identified with research on stress and performance (Levi 1998) and on the validity of extrapolating findings of animal experiments to human behaviour (Shapiro 1998), it would seem that there is precious little empirical evidence to support the Yerkes–Dodson inverted U-curve (see Staal [2004] for an overview). For example, in their analysis of psychology research papers on employee stress and work performance published between 1975 and 2000, Muse, Harris and White (2003) found only 2 papers (4% of the sample) that offered any support for the inverted U-curve. Instead they found that 46% of the reviewed papers supported a ‘negative linear’ hypothesis which suggests that ‘stress at any level consumes an individual’s time, energy, and attention,



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Figure 3. Broadhurst's (1957) experimental findings.

taking away from the task at hand and consequently inhibiting performance' (Muse, Harris and White 2003, 350). In this view stress is detrimental to performance and increasing levels of stress are increasingly detrimental. In other words, moving out of your comfort zone is more likely to impair rather than enhance your performance. Such findings have led for calls for the Yerkes–Dodson 'law' to be 'repealed' (Brown 1965, 663), 'retired' (Neiss 1988, 361), and 'explicitly rejected' (Muse, Harris and White 2003, 742). Similar calls have been addressed to U-entranced researchers in other disciplines (Moran 2005).

Now if the negative linear hypothesis is correct, one would expect to see evidence revealing a positive correlation between performance and comfort (i.e. feeling under-stressed or anxiety-free correlates with higher performance). This evidence is hard to find – not because analyses of empirical data fail to support such a hypothesis but because there is no data to analyse. As Muse, Harris and Field (2003) discovered, the vast majority of stress researchers fail to make any distinction between conditions of under-stress (being in one's comfort zone) and over-stress (in the danger zone). Instead both are simply classified as dysfunctional deviations from the supposedly optimal condition of moderate stress and coded for statistical analysis accordingly. To make matters worse, the standard stress measures used by many researchers, such

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395 as the Job-Related Tension Index (Kahn et al. 1964; Anderson 1976) and the role conflict and role ambiguity scales (Rizzo, House, and Litzman 1970), actually exclude any
‘explicit questions to evaluate stress resulting from work under-load, boredom, or lack
400 of stimulation, which prevents it from capturing the left-half of the inverted-U’ (Muse, Harris and White 2003, 357). This contextual range restriction is likely to be reinforced
by the tendency of stress researchers to skew their research either towards work occupations most commonly associated with high levels of stress such as law enforcement,
nursing, and the military, or towards employees who have recently experienced a corporate change initiative within their organisation.

In an effort to improve the poor external validity associated with laboratory-based animal experiments and quantitative studies of human performance and stress, a number of ethnographic studies have been undertaken. But these also fail to offer
405 support for comfort zone theory and the Yerkes–Dodson Law. Such studies have focused on participants in outward bound and adventure centre activities such as bridge building, orienteering, and rock climbing. These activities, often taking a few days to complete, are designed explicitly to ‘develop personal growth through pushing boundaries or “comfort zones”’ (Nadler 1995, 52). Ethnographic research
410 by Beedle (1994), Estrellas (1996) and Leberman and Martin (2003) has shown that the physical risk-taking activities on such outward bound and adventure courses do indeed take participants out of their comfort zone but, as a consequence, these people learned little from the experience. In all three studies course participants claimed they learned far more from the more creative and generic parts of the course
415 such as group decision-making and reflection.

So it would seem that ‘optimal performance’ is rarely, if ever, achieved when people are moved out of their comfort zone. Indeed, the empirical evidence suggests that the further someone is moved beyond their comfort zone the poorer their performance becomes. The clue to why this is the case is provided in the original 1908 dancing
420 mouse experiments where it was observed that ‘[t]he behavior of the dancers varied with the strength of the stimulus to which they were subjected. They chose no less quickly in the case of the strong stimuli than in the case of the weak, but they were less careful in the former case and chose with less deliberation and certainty’ (Yerkes and Dodson 1908, 477–478). Psychologists have given the term ‘attentional tunnelling’ to the way that both animals and humans tend to ignore any peripheral informational cues when making decisions under stress and to focus solely on cues perceived to pose a threat to their safety (Baron 1986). In other words, when under stress, we tend to concentrate on threat-relevant information at the expense of all other peripheral cues. However, in the workplace ‘when these peripheral cues are
430 related to the task and their incorporation would otherwise facilitate success on the task, performance suffers when they are unattended’ (Staal 2004, 38).

So why does the myth of ‘optimal performance’ persist? Social constructivist approaches to scientific laws and facts stress that it is not sufficient to explain why
435 ‘good’ theories prevail (and become ‘black boxed’), but stress the importance of understanding how what is ‘good’ is socially constructed and used to resolve debates about the nature of the world. From this perspective Yonay (1998, 20) argues that for a research finding or theory to be recognised as ‘valid’ it must ‘become part of a larger apparatus which can be used regularly without the need to justify [its] use’. This apparatus was, and remains, the aesthetico-political consensus of mainstream management theory and practice emphasising efficiency, measurability, and management’s
440 ‘right to manage’.

The consensus centres on the graphical representation of Yerkes–Dodson ‘law’ as an inverted U-curve. As Staal (2004) has noted, this curve is almost identical to the representation of ‘normal distribution’ in statistics – a concept originally developed to deal with the problem of measurement error in scientific observation and experimentation, and now culturally ubiquitous as a means of endowing the world with measurable features. Like the normal distribution curve, the Yerkes–Dodson curve has a ‘beautiful simplicity’ (Chandrasekher 1987, 263) that has long been the goal of the graphical method in experimental psychology in its quest to show how the human body naturally possesses attributes of a curve (Corbett 2008). The graphical representation of the Yerkes–Dodson ‘law’ as a curve reinforced its scientific (and hence ‘natural’) status and served to enlist willing conscripts among management theorists and practitioners. Not only do graphs serve as ‘revelatory objects’ that ‘simultaneously analyze what they reveal’ (Lynch 1988, 224) but, as Latour’s work on scientists ‘obsession’ with graphs has shown (Latour 1990, 75), ‘the unique capacity of graphical displays to render phenomena into transportable yet immutable representations tends to forge consensus of scientific belief’ (Smith et al. 2000, 76).

Beyond this, however, the supposed natural-ness of the symmetrical inverted U-curve disguises the way it vacillates between description and normative prescription. In a Foucauldian sense, the Yerkes–Dodson scientific ‘law’ acts as a bio-political ‘law’ that ‘mixes nature and legality, prescription and constitution’ (Foucault 1977, 304). As the normal distribution curve has extended practices of corrective measurement from astronomical to social objects, so the Yerkes–Dodson curve has extended beyond the measurement of learning in rodents to the measurement of an employee’s ability to perform to a required standard or norm. For, as Mader (2007, 6) argues, ‘by endowing bodies with measurable features, it installs the conceptual basis for their control and management’. Once the key variable of stress was established empirically as a predictor of performance it was only ‘right’ that managers should manipulate this variable on behalf of their employer.

Comfort zone theory assumption 3: management’s role is to induce a certain level of stress or arousal in the workplace in order to move employees out of their comfort zone and towards ‘optimal performance’.

If research evidence suggests that increasing stress levels lead to impaired performance – if the empirical facts do not ‘speak for themselves’ – what grounds are there for managers to assume quite the opposite? One explanation can be found in the writings of Selye on stress. In his influential book, *The Stress of Life*, Selye (1956) introduced the concept of eustress, or good stress, and argued that a certain amount of eustress leads to higher performance. Fundamental to his argument, however, was that a person’s reaction to increasing work demands was subjective and likely to be one of distress unless that person was placed in control of those demands and positively disposed towards them, in which case they were likely to experience eustress (Selye 1987). Unfortunately, as le Fevre, Matheny, and Kolt (2003) have noted, this distinction between distress and eustress is not recognised in applications of the Yerkes–Dodson ‘law’ in either psychology research or in management practices which profess to derive from Selye’s research (Lussier 2002; Certo 2003). As a consequence, management ‘attempt to maintain stress at optimal levels for performance rather than endeavouring to minimise stress. Moreover, [it] places responsibility on the managers for keeping the amount of stress on employees at an optimal level. These lessons are not

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entirely consistent with Selye's original work, nor are they well supported by empirical research' (Le Fevre, Matheny, and Kolt 2003, 727).

495 An alternative reading of eustress (or 'optimal stress') places the employee, not the manager, in control of potential work stressors. This aligns the concept more with the humanist psychology of Herzberg (1966) and the job enrichment movement which it inspired, than with the animal behaviourist psychology which informs present-day applications of comfort zone theory. This may help explain why an alternative reading has less attraction for management as it would require them to take responsibility for work design changes whilst increasing employee control over the change.
500 Not only does this create a shift in the balance of power but, as research by Karasek (1989) has shown, such a scenario (responsibility without control) creates a double bind as it will almost inevitably create stress (distress) for line and middle management.

505 Unfortunately, a behaviourist reading of eustress justifies the provision of what one might call 'good distress' to employees and there is mounting evidence that such initiatives are associated with increases in the bullying of employees by management (McCarthy, Sheehan, and Kearns 1995; Baron and Neuman 1998; Elrod II and Tippett 2002; Hoel, Zapf, and Cooper 2002). Skogstad, Matthiesen, and Einarsen (2007, 82) argue that, given the often complex nature of corporate restructuring and job re-engineering, 'a high power distance may be used by superiors to exploit and victimize their subordinates, a notion supported by the fact that the majority of bullies have formal authority over their victims'. Paradoxically, in reinforcing their formal authority over their subordinates in this way, higher management are moving the latter out of their comfort zone whilst trying to stay within the bounds of their own. The uncomfortable truth for many employees is that 'organizational changes are positively associated with exposure to task-related and person-related workplace bullying, and that being exposed to more organizational changes increases the likelihood of being exposed to bullying' (Skogstad, Matthiesen, and Einarsen 2007, 74).

510 In a survey of bullying at work, Rayner and Cooper (1997, 213) also found a strong correlation between bullying and 'lean' corporate change initiatives and argued that '[f]earful employees are less likely to make suggestions for improvement or participate fully in activities, and generally adopt a "play safe" approach which is against the current wisdom for successful organisation development'. Again, the potential negative consequences of being taken out of one's comfort zone are being emphasised here. Echoing the research findings on the tunnelling effects of stress on decision-making discussed earlier, and counter to the received wisdom of comfort zone theory, it would seem that 'playing it safe' is associated more with behaviour outside of one's comfort zone than behaviour within it.

520 Management bullying of employees is by no means a new phenomenon (Ironsides and Seifert 2003) but comfort zone theory undoubtedly offers a degree of legitimation to the practice. As noted at the beginning of this paper, the idea of comfort is now virtually synonymous with idleness, conservatism, and passivity. It therefore sits uncomfortably with the rhetoric of flexibility, leanness, and constant change which permeates mainstream management literature. But let us recall that comfort and recovery have a common etymological root in the Latin word for strength. From this root, taking someone out of their comfort zone is to deprive them of strength or courage. This would certainly appear to be the idea behind the 'waterboarding' and electrocution of rodents in experiments on performance and established fear and/or pain as exemplary stimuli for changing behaviour. It is perhaps no coincidence that fear and pain are the two main psychological bases of bullying behaviour, and have been shown to be a

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540 major contributor to ‘the darker side of lean’ (Mehri 2006, 21). It is also no coincidence
that the unequal power relationship between managers and employee reflects that
between the psychologist and subject in the behavioural laboratory. However, the
manager – employee power relation is not only defined by a formal employment con-
545 tract. It is reinforced by a psychological contract which, as Dick and Nadin (2011) have
shown, legitimises the exercise of what Bourdieu (2000, 94) terms ‘symbolic violence’
whereby employees’ failure to achieve high-performance norms come to be understood
as a consequence of their own dispositions, and particularly their inability to cope with
stress. This may often be reinforced through the provision of employee stress manage-
550 ment programmes which ‘peddle individual victim-blaming approaches to stress prob-
lems that can only be solved by changing workplace organisations and relations’
(Labour Research Department 1988, 2).

What hope for recovery?

555 In this paper we have examined three key assumptions made by comfort zone and lean
management theorists and practitioners, and have found virtually no empirical evidence
to support them. What we have found instead are systematic and repeated mis-readings
of the classic studies on arousal, stress, and performance, and the ‘black boxing’ of
560 these as matters of fact. This process has perpetuated a belief that a certain amount
of deliberately induced stress has a positive impact on employee performance. The
problem, as noted above, is that terms such as stress, distress, eustress, arousal, stimu-
lation, and motivation are used interchangeably in these empirical studies, and, in many
of them, the subjective emotional reactions of the subject are simply inferred (electric
565 shocks are stressful, the experience of near-drowning is motivating, faster heart rate
equals arousal, etc.). Yet it is becoming clear from the study of distress that individuals
vary markedly in their perception of, and reactions to, stressful situations. Indeed this is
fundamental to Selye’s notion of eustress as well as to the transactional models of stress
which have long superseded behaviourist stimulus-response models in psychology
570 research on stress at work (Cooper 1998).

Nevertheless, despite all the evidence to the contrary, the notion that stress is ‘good’
for performance is still being peddled by management textbooks. So perhaps one road
to recovery – to help ameliorate stressful working conditions – is to better inform man-
575 agers and expose this empirical mirage within such texts. Unfortunately, management
texts continue to ignore issues such as bullying and describe theories based on erro-
neous principles and empirical findings. So perhaps one way forward is ‘to recognise
the source of these principles, and the ways in which they may reflect and reproduce
values and assumptions under the guise of objective science’ (Cullen 1997, 370).
Whilst this may be necessary it is certainly not sufficient. Even if one accepts the
580 empirical mirage of comfort zone theory, and the ‘objective’ research findings that
reveal the huge financial cost of workplace stress to organisations and society (Milc-
zarek, Schneider, and González 2009) there remains the question of what and where
remedial action should be taken.

The notion of the comfort zone has been taken up within modern cultural and man-
585 agerial discourse and aligned to notions of idleness, obesity, conservatism, and selfish-
ness, thereby equating both stress and comfort with a subjective state of mind rather
than an objective state of affairs. Such an interpretation encourages a search for a sol-
ution to problems of stress through the provision of employee counselling and stress
self-management. It also deflects attention away from the way that lean organisations

not only require lean and flexible bodies capable of achieving performance ‘stretch goals’ (Gratton 2000, 241), but employees whose bodies are healthy (fit) enough to fit into such a regime. Thus, many lean organisations actively encourage their employees to develop a ‘goodness of fit’² through the provision of ‘wellness’ programmes incorporating healthy eating menus in staff canteens and subsidised ‘keep fit’ gym membership (CIPD 2007). However, Newman (2010, 688) suggests that “‘wellness’ is a sham. It is aimed at distracting attention from more stressful work, more bullying, and the weakness of unions which means that workers have less “voice” at work’. A corporate problem thus becomes a corporeal one.

Tyler and Wilkinson (2007, 546) opine that the rhetoric of the lean organisation ‘normalizes an exploitative set of social relations which are, by implication, perpetuated as aesthetically desirable and healthy’. The rhetoric of comfort zone theory would appear to serve a similar function. If management texts are to play a role other than as servants of corporate power (Baritz 1960) it is important that they draw upon reliable empirical data to reveal and critically reflect upon trends in managerial practices. Theories of leanness and (dis)comfort fail to draw on sound empirical evidence and offer instead normative judgements that attempt to capture and/or shape current practices. For, as Fevre (2007, 531) points out: ‘the need to cast around for evidence on which to found normative judgments means that someone else’s judgments may already have shaped the “evidence” that is taken for-granted’. Hierarchical organisations, whether they are in the governmental, educational, service, or manufacturing sector, have much to gain from fostering the idea that the key to optimal performance lies in the hands of their managers. In uncritically reproducing and (mis)representing a theory based on the systematic maltreatment of animals, and perpetuating its erroneous status as a scientific ‘law’, management texts not only demonstrate a propensity towards ‘manipulation by consent’ (Baritz 1960, 210) but they also help legitimise bullying and the wilful creation of work stress in the name of ‘good’ management. The fact that critical management scholars call for management thinkers to move out of their comfort zone (Oswick, Keenoy, and Grant 2002) only serves to demonstrate how deeply embedded this value-laden concept has become.

Notes

1. Winton (1987) and Teigen (1994) suggest that the publication of Broadhurst’s paper elevating Yerkes and Dodson’s tentative research findings to a ‘law’ served to bolster further the scientific status of behaviourist experimental psychology in the USA at a time when it was beginning to find support for its theoretical constructs (such as arousal) in neuroscientific research.
2. It is somewhat ironic in the context of this paper that ‘goodness of fit’ is a term used to describe how well statistical models (such as the inverted-U curve) are supported by empirical data. It also offers a further example of the way such models vacillate between description and normative/aesthetic prescription.

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