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Interdisciplinary lessons for contemporary challenges

The zeitgeist leadership practice of excelling at work

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Abstract

Purpose – The purpose of this paper is to develop a rich and textured narrative that utilises scholarly evidence, empirical research, and practitioner knowledge to shape, inform, and extend understanding of the leadership practice of "excelling at work" as it is enacted for zeitgeist organisational challenges.
Design/methodology/approach – In order to achieve this, it traverses a temporal timeline from circa 350 BC to the present millennium, to examine extant theories and concepts and emerging wisdom at the intersection of domains as seemingly diverse as neuroscience, cognitive and social psychology, contemplative practice, positive psychology, and organisational behaviour and leadership.
Findings – Complex environments require individual and collective agency for efficacious and adaptive responses. Extant theories and new insights on effectance, meaningful work, signature strengths, purposeful attention, self-control, deliberate practice, grit, explanatory styles, and mindsets amongst others, interconnect and at times intersect to form an empirically validated narrative on the augmented leadership practice of excelling at work in challenging times.
Originality/value – Overcoming zeitgeist challenges adaptively, requires organisations and their people to excel at work. Innovative combinations and connections of key constructs and concepts, underpinned by empirical evidence from a variety of disciplines, explicate the nature and enactments of this vital leadership practice of excelling at work.

Keywords Resilience, Cross-disciplinary, Metaphors, Self-control, Deliberate practice and grit, VUCA context, Zeitgeist leadership

Paper type Conceptual paper

> Compared with what we ought to be, we are only half awake. Our fires are damped, our drafts are checked. We are making use of only a small part of our possible mental and physical resources (James, 1907/2010, p. 14).

Introduction

This paper seeks to develop a rich and textured narrative that utilises scholarly evidence, empirical research and practitioner knowledge to shape, inform, and extend understanding of the leadership practice of "excelling at work" as it is enacted for zeitgeist organisational challenges. In order to achieve this, it traverses a temporal timeline from circa 350 BC to the present millennium, to examine extant theories and concepts and emerging wisdom at the intersection of domains as seemingly diverse as neuroscience, cognitive, and social psychology, contemplative practice, positive psychology, and organisational behaviour and leadership.

Its foundational argument is that a firm's "organisational metaphor" – its organisational theory-in-use, is not only correlated to specific environments, but that particular characteristics can be broadly connected with different eras. More specifically it argues that an "organisation as cultures" metaphor aligns well with a volatile and complex environment and in doing so predicates members' agency as

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a prerequisite for organisational flourishing. People's skilful accomplishments and enactments take centre-stage in creating and shaping an organisation's internal operations and its external environment. Time-honoured concepts connect with more contemporary constructs that have been continuously honed over the past 50 years to explicate the nature and characteristics of excelling at work. At the same time new disciplines with their hybrids and intersections also serve to yield significant insights into the practice and its enablers.

Axiomatic assumption: era-based environmental turbulence and a VUCA world

The assumption that every successive era experiences more environmental turbulence than the era that has preceded it was first proposed in Emery and Trist (1965) and endorsed by Terreberry (1968). Since then this assumption of era-based environmental turbulence, has many academic and practitioner advocates, most notable amongst them being Igor Ansoff, the "generally recognised father of the field [of strategic management]", (Mintzberg, 1994, p. 145) who has endowed the proposition of endemic and progressively escalating environmental turbulence with almost axiomatic credence and longevity (see e.g. Ansoff, 1965, p. 125; Ansoff, 1979, p. 5; Ansoff, 1984, p. 57; Ansoff and Sullivan, 1993, pp. 13-17). For a working categorisation of Ansoff's era-based dimensions of the common strategic environment please refer to Figure 1.

There is merit to the counter argument that era-based environmental holding patterns, and the allied notion of progressively escalating turbulence in successive eras, are over-simplistic and possibly erroneous assumptions when describing the environment (see, e.g. Makridakis, 1990; Mintzberg, 1994, p. 207).

Notwithstanding, there is value in era based, escalating environmental turbulence as a broad organising framework for a conceptual understanding of the environment and for correlating an organisation's strategy and leadership processes to its variations over time. This is currently evidenced by the significant support it receives from institutions, like, for example the US Army, which after 9/11 has even created the VUCA nomenclature to facilitate the delineation of an environment characterised by: volatility – a state of dynamic instability; uncertainty – a lack of clarity; complexity – interactive threats and opportunities; and Ambiguity – the need for multiple perspectives (see, e.g. Horney *et al.*, 2010; Kail, 2010; Kinsinger and Walch, 2012). For an approximate correlation of a business' environment with its strategy and leadership processes, refer to Figure 2.

1900-1949	1950-1975	1975-1984	1985-1995	1996-PRESENT
STABLE (REPETITIVE) *No Change*	REACTING (EXPANDING) *Slow incremental Change*	CHANGING *(Fast incremental Change)*	DISCONTINUOUS *Predictable Change*	SURPRISEFUL *Discontinuous, Unpredictable Change*

Sources: Adapted from Ansoff (1984) and Ansoff and Sullivan (1993, p.15)

Figure 1.
Era descriptions of common strategic environment

ERA	1940-1960	1961-1980	1981-1995	1996-2004	2005-PRESENT
COMMON STRATEGIC ENVIRONMENT	DELINEABLE & STABLE	STABLE & MATURE	FLUID & DYNAMIC	PUNCTUATED & DISCONTINUOUS	HIGH VELOCITY, COMPLEX (VUCA WORLD)
STRATEGY	PRESCRIPTIVE Design/Plan	PRESCRIPTIVE Position	LEARNING & EMERGENT	CONFIGURATIONAL	
LEADERSHIP PROCESS	DOMINANT & JUDGEMENTAL	RESPONSIVE TO ANALYSIS	RESPONSIVE TO LEARNING	PURPOSEFUL SEARCH FOR MEANING	CHANGE AGENT

Figure 2.
Environmental context, strategy, and leadership process

Sources: Adapted from Mintzberg *et al.* (1998, pp. 354-359); Groysberg *et al.* (2006, pp. 92-100); Tichy and Bennis (2007, p. 97); Kinsinger and Walch, 2012)

Discernible correlations: an organisation's metaphors and its environment

There exists another important if not oft-considered correlation that has material implications for this paper's inquiry. This is between the theory-in-use of an organisation – its organisational metaphor – and its environment. With regards to organisational metaphors, Morgan's (2006) seminal work, demonstrates compellingly that a total of just eight generative organisation metaphors (machines, organisms, brains, cultures, political systems, psychic prisons, processes of change and transformation, and instruments of domination) are sufficient for theorising any organisation. This paper extends his arguments in three ways: first, by making an important aggregation; second, inferring two useful associations; and third, highlighting a significant correlation.

Making an important aggregation

First, it notes that the five existing era-based bands of environments (see Figure 2) can be further aggregated into just three broad clusters of environment that an organisation encounters by combining phenomenologically similar eras (see Figure 3). This results in the following classification: Category 1 comprises environments that are a combination of either delineable and stable and/or mature and stable; Category 2 comprises environments that are fluid and dynamic; and finally Category 3 comprises environments that are a combination of either punctuated and discontinuous and/or high velocity and complex VUCA environments.

Inferring two useful associations

Second, it infers that Polley's (1997) comment that "metaphors make possible distinct observations about turbulent organisational processes" (p. 445), (notwithstanding that it was made in specific reference to complexity and chaos theory metaphors), is capable of extrapolation to its own substantive context of organisational metaphors for turbulent environments. In addition it highlights Morgan's (2011) admission that "pragmatic concern" was his primary driver when choosing the number of metaphors needed to theorise the organisation in his original work (pp. 463 and 471). It uses Morgan's admission as rationale and justification for its own use of just three metaphors, i.e. organisation as a machine, organisation as an organism, and organisation as cultures, arguing that the three metaphors have sufficient conceptual span and explicatory powers to justify their use in lieu of all eight original organisational metaphors.

ERA	1940-1960	1961-1980	1981-1995	1996-2004	2005-PRESENT
COMMON STRATEGIC ENVIRONMENT	DELINEABLE & STABLE	STABLE & MATURE	FLUID & DYNAMIC	PUNCTUATED & DISCONTINUOUS	HIGH VELOCITY & COMPLEX (VUCA WORLD)
BROAD CATEGORIES	CATEGORY 1		CATEGORY 2	CATEGORY 3	
ORGANISATIONAL METAPHORS FOR MANAGING	MACHINE		ORGANISMIC	CULTURES	

Sources: Adapted from Mintzberg *et al.* (1998, pp. 354-359); Groysberg *et al.* (2006, pp. 92-100); Tichy and Bennis (2007, p. 97); Morgan (2006, p. 142); Kinsinger and Walch, 2012)

Figure 3.
Era, environmental context, organisational metaphors

Highlighting a significant correlation

Finally, it argues that these three metaphors are broadly correlated with the environmental Categories 1, 2, and 3, respectively. The paragraphs that follow describe how each one of these metaphors is sufficient in and of itself, to describe the theory of the organisation for the specific environmental category to which it has been assigned.

Machine metaphor: mapping environmental stability to rigidity. Since a metaphor creates meaning by understanding one phenomenon through another in a way that accentuates commonalties, the "organisation is a machine" metaphor foregrounds an organisation's machine-like qualities of clockwork, bureaucracy, process, and implementation (Morgan, 1983, p. 602). The primary emphasis of this metaphor and ergo the organisation it describes, is therefore on the design of appropriate organisational structures. Because mechanical forms of organisation have great difficulty adapting to change, the machine metaphor works best in delineable and stable environments.

Organism metaphor: mapping dynamic and fluid environments to adaptiveness. The organisation as an organism metaphor focuses on achieving organisational fit and alignment with the environment, whilst simultaneously safeguarding consistency and balance between internal sub-systems. The organismic metaphor is therefore about excelling at adaptiveness. Its primary emphasis is the design of adaptive processes. The logical inference is that the organisation as an organism metaphor with its focus on adaptiveness works best in fluid and dynamic environments of change.

Organisation as cultures metaphor: mapping complex environments to agency. The third and final metaphor of organisation as cultures differs from the machine and organism metaphors in ways that have great import for this paper's inquiry into zeitgeist leadership practices. The cultures metaphor recognises that organisational development is less about mechanistic bureaucracy and more about interpretive forms of inquiry that connect organised action to its contextually embedded set of meanings.

Rather than a living organism, an organisation as cultures metaphor views the organisation more like a book whose story is constantly being co-authored by its people (Cooperrider and Whitney, 2001). In this sense, the organisation is "open to indefinite revision, change, and self-propelled development" (Cooperrider and Srivastva, 2008, p. 355). It is in essence a socially constructed reality that is as much in the minds of its members as it is in concrete structures, rules, and relations (Morgan, 2006, pp. 136-137).

The organisation as cultures metaphor is therefore best suited to a world of surprises – discontinuous, unpredictable, and high-velocity complex change – aptly described by the VUCA nomenclature. For a summary of the correlation of a business' environment, with its dominant metaphors refer to Figure 3. Its import for this paper lies in its being a socially constructed reality. Because even the most routine and taken-for-granted aspects of social reality are in fact skilful accomplishments and enactments of people (Garfinkel, 1967; Nicholson, 1995; Weick, 2009), the cultures metaphor underscores the fact that it is individual agency on the part of employees that leads to organisational growth. Even more significantly, in this world-view, the relations between an organisation and its environment is also socially constructed, with organisational environments enacted by hosts of individuals and organisations each acting on the basis of diverse interpretations of a mutually defined world (Morgan, 2006, p. 144).

This individual and collective agency and its enactments determine the internal and external worlds of organisations. Further, such agency hones the leadership practice of excelling at work, which helps organisations successfully meet adaptive challenges by enacting their internal worlds and co-creating their task and conceptual environments in VUCA contexts. The rest of this paper assays extant theory from diverse disciplines to proffer a conceptual sequence of enactments that embody the practice.

Journeys and destinations: existentialist angst, coping, effectance, and the progress principle

As the preceding discourse has underlined, the leadership practice of excelling at work has a privileged position in the discourse on organisational growth, change, and renewal because it shapes and guides the individual and group's concerted actions for future adaptiveness. It is necessary to examine the attributes that describe any organisation's future in order to understand why organisational change theorists and practitioners regard the future as the "domain of leaders" (Kouzes and Posner, 2002, p. xxviii). In doing so, this paper will describe how and why people's attitudes and responses to the future form the causal antecedents to the leadership practice of excelling at work.

Existentialist angst and coping

Existentialist anxiety is a common theme when the future's impact on individuals is examined, not just in leadership literature but also in social and organisational psychology writing in general. Such angst may be rooted in the uncontrollable reality that "hardships are an inevitable part of life" and "bad things can happen even to beautiful young princesses" (Diener and Biswas-Diener, 2008, pp. 16-17). It could be further compounded by people's irrational desire to "hold fast to the position that the world is a just place", and their oftentimes unrequited expectations of deterministic outcomes to their actions (Lerner, 1980; Rubin and Peplau, 1975, p. 66). It is arguably augmented by the uncertainty that "ticks at the very core of the human condition" because of an "unfinished and unfinishable world" that "incites us" to "draw upon our talents" to meet its challenge (Lipman-Blumen, 2006, pp. 49 and 111).

It appears moreover that there is much commonality at the core of various values-mediated strategies people use for coping with such a fraught future. For the wise, as Sternberg (2003) proposes, it is about acting to balance intrapersonal, interpersonal, and extrapersonal interests over short and long terms, and thereafter adapting, shaping and selecting responses to the situation (p. 152). These strategies of

adaptation-shaping -selection resonate well with the three coping strategies that ordinary people use in times of crisis: first, problem-focused coping; second, emotion-focused coping; and third, less useful avoidance-focused coping (Carver *et al.*, 1989, p. 267).

Effectance and the need to make things happen

This is because whether wise or otherwise, people in essence, act "*to make things happen*" (italics in the original), a basic drive that characterises all people and some mammals (Harlow, cited in Haidt, 2006, p. 220). As Harlow and his associates have reported based on their studies with monkeys, "puzzle-solving increased and decreased in an orderly fashion, based on the natural consequences of finding a correct solution, without food rewards" (as cited in Cameron and Pierce, 2002, p. 70). It is this understanding that, "dealing with the environment means carrying on a continuous transaction" without "consummatory climax" that forms the core of the effectance motive, a need that is a constant presence in human lives. By linking one's satisfaction to a "trend of behaviour" rather than a "goal that is achieved", the effectance motive underscores the veracity of the adage that both a journey and its destination have import (White, 1959, p. 322).

In doing so, it echoes the assertions of the writer of the Hebrews circa 80AD that "we are not running for the prize […] we are running for the joy of running" (as cited in Bartlett and Taylor, 2009, p. 46) and reiterates the proclamation of the bard in Troilus and Cressida that "joy's soul lies in the doing" (I, ii, p. 287). As Haidt (2006) sums it up succinctly, "we get more pleasure from making progress towards our goals than we do from achieving them" (p. 221).

Progress principle and work

The effectance motive is a conceptual forerunner to the progress principle, a doctrine emerging from more recent and empirically validated findings in high-tech industries that the "single most important differentiator [between best days and worst days at work] was a sense of being able to make progress" (Amabile and Kramer, 2007, p. 81). On the basis of their evidence the authors further assert that the "power of progress is fundamental to human nature" and "if you are a manager, the progress principle holds clear implications for where to focus your efforts" (Amabile and Kramer, 2011a, p. 72). Their subsequent work adds a vital caveat to this assertion by stressing that, "in order for the progress principle to operate, the work must be meaningful to the person doing it" (Amabile and Kramer, 2011b, p. 94).

Expanding existing capacities: meaningful work, flow, vital engagement, job-crafting and signature strengths

Defining meaningful work

This foundational stricture of "meaningful work" in the progress principle makes it necessary to better understand what constitutes meaningful work. This paper argues that over four decades of research into the phenomenon of flow have vested this phenomenon with telling descriptive powers in this regard. Thus flow theory's definition of optimal experience as "*an intense, experiential involvement in moment-to moment activity*" that is "*intrinsically motivated or autotelic*" (italics in the original) is in its essence a surrogate description of meaningful work as understood in the progress principle (Amabile and Kramer, 2011b, pp. 95-96; Csikszentmihalyi *et al.*, 2005, p. 600; Nakamura and Csikszentmihalyi, 2002, p. 89).

Enjoyed absorption and subjective significance

Ergo, the proximal conditions of flow i.e., "clear goals, optimal challenges, and clear immediate feedback" are also the defining features for meaningful work because they "promote […] experiential involvement" that are characterised by "complete absorption" in "activities that involve mastery, control and autonomous behaviour" (Csikszentmihalyi *et al.*, 2005, pp. 600-602). Subsequent augmentation of flow theory to explain the all consuming passion of extraordinarily creative people has generated the concept of vital engagement, which Nakamura and Csikszentmihalyi (2003) define as a "relationship to the world that is characterised both by experiences of flow (enjoyed absorption) and by meaning (subjective significance)" (p. 87).

Job career and calling

Vital engagement in turn further informs and shapes the understanding of meaningful work especially in organisations, because it underscores a cardinal insight that the key difference between "satisfied and unsatisfied employees is how they view their work" whether as "job, career or calling" (Wrzesniewski, cited in Diener and Biswas-Diener, 2008, p. 70; Wrzesniewski *et al.*, 1997). Wrzesniewski *et al.* (2010) further posit that "employees at all levels, in all occupations" who redefine their jobs to incorporate their "motives, strengths and passions" through a process of "job crafting" will be "more engaged and satisfied with their work lives, achieve higher levels of performance in their organisations, and report greater personal resilience" (pp. 114-115).

Signature strengths and eudaimonia

The salutary effects of employees' job crafting on their personal growth and organisational performance argue for a better understanding of the personal resources required to implement job crafting. Just such an exposition of the building blocks of high achievement is provided in Peterson and Seligman's (2004) handbook and classification of character strengths and virtues. Their exposition of six virtues and 24 character strengths that have been valued across time and societies, draws its intellectual inspiration from and attributes its underlying moral and ethical vein to Aristotle's description of character virtues more than two millennia ago, in Nicomachean Ethics, Book II, Chapter 1, 1130a-1130b (see also Adler, 1997).

Peterson and Seligman's (2004) classification's deep relevance to this paper's inquiry is twofold. On the one hand it ties together the various strands of intentional and intrinsically motivated human action discussed thus far by its philosophical stance that "action emanates from character and choice, [and] individual responsibility and free will are, at least in part, causes" (Seligman, 2011a, p. 105). On the other, it reiterates Aristotle's temporally distant assertions about eudaimonia, albeit in more modern lexicon even as it operationalises the concept of an engaged life as one that requires identifying one's signature strengths, and thereafter re-crafting one's work and personal life in order to make best use of these signature strengths to achieve flow and vital engagement (Adler, 1997; Csikszentmihalyi, 2003; Seligman, 2002).

Purposeful attention: moment-to-moment awareness, contemplative practices and neuroplasticity

Defining "moment-to-moment"

While the classification of signature strengths and virtues and the mode of their operationalisation emphasise the nature of personal resources required for an efficacious life, this paper now draws attention to another as yet unexamined subject of

inquiry arising from the preceding discussion on effectance, flow, etc. – and that is the unit in which time is measured. It has been evident from the preceding sections that time is measured moment-to-moment in the literature on effectance and people's relations to their work. One of the basic tenets of effectance, for example, is that "dealing with the environment means carrying on a continuing transaction" (White, 1959, p. 322) and in flow theory optimal experience "seamlessly unfolds from moment to moment" (Nakamura and Csikszentmihalyi, 2002, p. 90) with the "direction of the unfolding experience being shaped by both the person and the environment" (Csikszentmihalyi, 1985, p. 91). Leading an engaged life therefore "involves intense experiential involvement in moment-to-moment activity" with "clear and immediate feedback" (Csikszentmihalyi *et al.*, 2005, pp. 600 and 602). This paper will examine moment-to-moment time from the multiple lenses of contemplative practice, psychology, and neuroscience to arrive at its meaning and import to the leadership practice of excelling at work.

Contemplative practice and being present in the moment

Buddhist and Western work on the taxonomy of consciousness and conditioning relates moment-to-moment awareness both to the need to be present with what is actually happening rather than expecting a simple repetition of the past, as well as assisting in liberating perceptions because "being mindful often requires letting go of what we think we know and seeing the world and our relationship to it in a new way" (Silsbee, 2004, p. 28). Kabat-Zinn (2005) describes moment-to-moment awareness rather evocatively as "show[ing] up for life wholeheartedly and pay[ing] attention to its particulars" (p. 74). He goes on to make this definition even more operational when speaking at the New York Academy of Sciences, by describing moment-to-moment mindfulness as the awareness that arises by paying attention on purpose, in the present moment and non-judgementally (Nour Foundation, 2013).

When viewed through a psychology prism this operational definition disperses into three separate hypotheses as psychologist Amishi Jha describes during the same event. The first hypothesis emerges from the statement about "paying attention on purpose" and concerns one's ability to voluntarily direct one's attention. The second hypothesis emanates from the statement about being in the present moment and references one's ability to develop meta-awareness of whatever one is paying attention to in any given moment. Finally, the third hypothesis arises from the statement about being non-judgemental and refers to the level of control one can exercise on the value-laden, affectively charged, self-related meanings one attaches to experiences and events (Nour Foundation, 2013).

Life experiences and the filter of purposeful attention

Purposeful attention (*H1*) is not a new-millennium hypothesis, notwithstanding that the multi-disciplinary efforts to understand the phenomenon of attention better, have indeed resulted in significantly more nuanced knowledge in the past 15 years. Apropos William James' (1890/1950) seminal observation more than a century ago that:

> And the faculty of voluntarily bringing back a wandering attention, over and over again, is the very root of judgment, character and will. No one is compos sui if he have it not. An education, which should improve this faculty, would be the education par excellence. But it is easier to define this ideal than to give practical directions for bringing it about (p. 424).

Lack of this faculty can be ascribed to different causes and manifests itself in various ways. Field experiments, for example, have proven inattentional blindness – a failure to notice a fully visible, but unexpected object because attention is engaged on another task, event, or object (Simons and Chabris, 1999). Independently, laboratory experiments have verified attentional blink, a kind of neural refractory period where the brain is simply inaccessible to incoming information and one is totally unaware of a stimulus being presented because it is as if one is momentarily unconscious (Google Tech Talks, 2009).

Csikszentmihalyi (2003) invokes the compelling metaphor of a screen to underline the primal importance of attention:

> Every experience we have – every thought, feeling, desire or memory; every act, conversation or accomplishment – must pass through the screen of attention for it to become real to us and thus must be accounted for by some portion of those 173 billion bits. What we call our life is the sum of all the experiences that have filtered through attention over time (p. 78).

Contemplative neuroscience – the mind is what the brain does

From the above perspective it is easy to understand that the substantive quality and content of one's life is determined by one's ability not just to pay attention, but equally importantly to skilfully direct the attention one pays. This requires one to manage attention flow by simultaneously balancing its three aspects: first, holding on to information, second, updating awareness, and third, seeking stimulation (Baars, 1997; Hanson, 2009, p. 177). Important ways of achieving this balanced and well-controlled attention are being highlighted by the relatively new and intersectional discipline of contemplative neuroscience that draws inspiration for its direction from the study of long-term practitioners of meditation and validation for its findings from functional magnetic resonance imaging of brain function, a turn-of-the-millennium technique.

Davidson (2010) evidences both field and laboratory research, that has seminal import for the mindful and intentional control of attention. This research underlines, for example, the plasticity of emotional styles like attention and shows how certain contemplative practices can alter these styles and their brain basis. This is because neural networks that are important for attention, particularly the regions in the pre-frontal cortex, are engaged and in certain ways strengthened by meditational practice.

Neuroplasticity – the brain as the organ that changes with experience

Initial findings predicated on long-term practitioners of a form of meditation practice called resting in awareness, implicate gamma oscillations of about 40 cycles per second particularly in the pre-frontal region in basic mechanisms of synaptic plasticity. These oscillations are highly synchronised across widespread regions of the brain. While it is still hypothetical, the presumption is that external stimuli phase-lock with this brain oscillation and their signal-to-noise ratio is therefore enhanced. This enables the brain to single-out relevant stimuli for better attention (Dalai Lama Centre, 2012).

At a propositional level based on the above, consistently directing attention skilfully is iteratively and reciprocally related to neuroplasticity, the brain's ability to create new circuits and strengthen existing neural structures. This is because neurons that fire together wire together (Hebb, cited in Hanson, 2009, p. 5). Mental activity therefore shapes the brain, which in turn influences mental activity and this exchange proceeds in a virtuous and iterative loop. When coupled with contemplative practices that

heighten awareness to particular stimuli and modulate the brain's ensuing responses to such stimuli, neuroplasticity suggests fundamental ways to shape the brain and one's life over time (Nour Foundation, 2013).

Willpower: the social psychology and neurobiology of postponement

Self-control – the ability to postpone gratification

Purposeful attention enables one to be awake, aware and attuned to oneself and the world around one (Boyatzis and McKee, 2005, p. 3). Thereafter, one needs conscious, effortful regulation of the self by the self (American Psychological Association, n.d.) in order to resist the short-term temptation of any stimuli that arise. It is only by overriding responses and changing one's thoughts, feelings, impulses and performance that one is able to meet one's long-term goals. This ability to delay gratification is self-control, a state and trait that is the psychological basis of morality and free will in human beings (Baumeister and Tierney, 2011).

Four-year olds and marshmallows

The first modern study of self-control yielded multiple insights, some from the immediate outcomes of the research and others from the follow-up investigations conducted by the researchers on the same cohorts more than a decade later. Baumeister (2012) provides this very lucid summary of the original study:

> Studies on self-control have their roots in the "marshmallow test" devised by Walter Mischel at Stanford University, California, in 1972. More than 600 children aged between 4 and 6 were offered treats (an Oreo cookie, marshmallow or pretzel). The children could eat the treat, but if they waited 15 minutes without giving into temptation, they would be rewarded with two treats. Mischel watched as some children covered their eyes or turned around so that they couldn't see the treat, others kicked the desk, tugged their pigtails or stroked the marshmallow as if it were a stuffed animal. Some waited for the researchers to leave the room before eating the treat. A minority ate the treat immediately. Of those attempting to delay, one-third deferred gratification long enough to get the second treat. Age was a major factor, with older children doing better. Years later, Mischel's researchers tracked down the children and found that those who had done best at 4 grew up to be more successful in school and work, and to be more popular. Other studies support this (p. 30).

Delayed gratification and the brain's executive control centre

Based on this test and subsequent work, Mischel *et al.* (2008) have described the neurobiological basis of self-control in the following way:

> Unlike lower animals on the evolutionary ladder, human beings have the capacity to take control with higher-level brain centres (pre-frontal cortex). This makes it possible for the person to start cool, rational thinking to solve the problem that the amygdala has already begun to respond to automatically and emotionally. How you think – hot or cool – can change the attention control centres activated which in turn makes self-regulatory efforts more or less difficult (pp. 163-164).

Casey *et al.*'s (2011) examination of brain activity in some of the marshmallow test subjects using fMRI imaging provides additional confirmation of the neural substrates of the push and pull of temptation, by showing that when presented with tempting stimuli, individuals with low self-control show boosted activity in the ventral striatum (a region thought to process desires and rewards). These brain patterns differ from those individuals with high self-control who show more activity in the prefrontal cortex (a region that controls executive functions such as making choices).

Enduring effects of childhood self-control

The marshmallow test's implications for self-control are significant in and of themselves. The knowledge that people may be more or less susceptible to hot triggers and that such susceptibility to emotional responses influences behaviour over the course of their lifetimes has self-evident material import. From a study of self-control in a group of thousand individuals who were tracked from birth to age 32 as part of a long-term health study in Dunedin, New Zealand, researchers found that, individuals with high self-control in childhood (as reported by their teachers, parents and the children themselves) grew into adults with greater physical and mental health, fewer substance-abuse problems, fewer criminal convictions, and better savings behaviour and financial security. These patterns held even after corrections for various environmental factors (Baumeister and Tierney, 2011, pp. 12-13; Moffitt *et al.*, 2011).

Pre-school children and the strategic allocation of attention

This paper's preoccupation, however, is with the insight afforded by the findings of the initial marshmallow test on the pre-school children, and its paradigm-changing impact on the concept of purposeful attention itself. It is best captured by perspicacious remarks that "intelligence is largely at the mercy of self-control" and the crucial skill for self-control is the "strategic allocation of attention" (Mischel, cited in Lehrer, 2009, pp. 3 and 6). These comments encapsulate the existential plight of the pre-schoolers and their struggle "to control actions for the sake of temporally distant consequences and goals" in the face of "great impulsivity" (Mischel *et al.*, 1989, p. 933). In order to explain the ability to delay gratification that some of the children demonstrated, a counterintuitive framework to prevailing wisdom the exercise of self-control is required.

For over a century, it had been contended that attention is the crux of self-control and "keeping an eye on the prize" provided the mechanism for delaying gratification (James, 1890/1950). The actual findings with the four-year-old children attempting future-oriented self-control with the treat of marshmallows went contrary to this proposition. They showed that rather than attending to the gratification as had been advocated, it was in fact the strategic allocation of attention away from the hot stimulus that became the key determinant of how long the children were able to delay gratification.

The hot and cool system powering willpower

A hot and cool system has been proposed to explain how willpower succeeds or fails. The cool system is a thinking system, incorporating knowledge about sensations, feelings, actions and goals. It is a reflective system that self-regulates by using specific cognitive and attentional processes that depend on higher-level brain centres whose neural substrate is the prefrontal cortex. The reflective system overrides the automatic and impulsive hot system whose neural substrate is the amygdala in the emotional brain (Mischel *et al.*, 2008, pp. 163-164).

The hot and cold system comprise of processes that include external conditions or self-directed efforts to selectively direct attention and thoughts away from the rewards (Mischel, 1974). Paradoxically they can also include certain types of thoughts that are focused on the stimulus. The explicit proviso is that such thoughts must not be arousing (consummatory) representations that focus on the hot qualities of the stimulus. If they were, they would elicit completion of the action sequence associated with the thoughts. Rather these thoughts need to be abstract (non-consummatory)

representations of the stimulus that serve as a cue or reminder of the contingency or reason for delaying the associated action sequence (Mischel *et al.*, 1989, p. 935).

There is more to achievement than mere self-control

The preceding discussion has stressed the cognitive processes that underlie self-control early in life and the significant links that exist between self-control behaviour and relevant social and cognitive outcomes years later. Baumeister and Tierney (2011), however, are quick to caution that the presence of self-control alone does not guarantee achievement of objectives. They stress two steps that precede self-control and are mandatory for the achievement of objectives: "The first step [...] is to set a clear goal" (p. 62) and the "second major step [...] [is] monitoring behaviour [towards the goal]" (p. 110).

Effort and eminence: understanding the key attributes and their mediating processes

The algebra of attention

Baumeister and Tierney's (2011) pre-conditions for the achievement of objectives is tellingly extended by Seligman's (2011a) postulation that a "plausible" Occam's razor equation for achievement, "*leaving out coefficients*" is "*achievement = skill × effort*" (p. 110) (italics in the original). Having thus defined achievement as a function of two variables, Seligman argues that the independent variable of skill in this equation is comprised of three cognitive processes: first, mental speed; second, use of the pre-frontal cortex's executive function for impulse control, creativity, and planning; and finally, the rate of new learning (p. 114). While it concurs with his segmentation of skill, this paper's focus is on disaggregating the second independent variable of effort in Seligman's achievement equation in order to determine the impact that effort has on the leadership practice of excelling at work.

Rationale for focusing on eminence and high expertise

To this end, this paper delimits its inquiry, eschewing a broad engagement with the total body of research on the subject of effort and its correlation with achievement, in favour of concentrating its attention on the narrower research domain of high accomplishment. Within this domain, it specifically engages with the work done on the nature of the correlation of effort expended as goal-directed behaviour, with the achievement of elite status in any field of endeavour. This approach has merit for this paper's inquiry for a number of reasons. First, the study of high accomplishment is robust because it has spanned multiple domains and is spread over more than a century. Second, it is able to provide empirically validated insights into phenomena like expert performance, extreme persistence, and resilient mindsets; and it is able to explicate inter-relationships between these phenomena on the one hand while relating them to the effort variable on the other. Most significantly, however, "the study of expert performance has important implications for our understanding of the structure and limits of human adaptation and optimal learning" (Ericsson and Charness, 1994, p. 725).

Dimensionalising high accomplishment

Understanding the dimensioned nature of high accomplishment must be the first step in any attempt to inquire into the role that effort plays in high achievement. Empirical evidence to prove that it required more than just intelligence to achieve high

performance was proffered more than a century ago. Galton (1869/1892) collected biographical information on eminent judges, statesmen, scientists, poets, musicians, painters, wrestlers and others to argue that intelligence on its own was not enough to explain genius. Instead the evidence demonstrated that high achievement was "the concrete triple event, of ability, combined with zeal and with capacity for hard labour" (p. 78).

Terman and Oden's (1947) longitudinal study of mentally gifted children many decades later supported this argument. Amongst other observations, it came to the apparently counterintuitive conclusion that, "perseverance, self-confidence, and integration towards goals" was a better predictor than IQ of whether a mentally gifted Terman subject would grow up to be an accomplished doctor, professor or lawyer (p. 351). Thus like Galton (1869/1892) biographical study, Terman and Oden's (1947) research also unequivocally asserted that the source of great accomplishment is multidimensional. As Murray (2003) sums up when he writes about accomplishment, "it does not appear just because a person is highly intelligent, or highly creative or highly anything else" (p.93).

Effort as a correlate of high accomplishment

While both Galton (1869/1892) and Terman and Oden's (1947) findings are principally positing the multidimensional nature of achievement, they can also be construed, as situating effort as one of those dimensions. An arguably decisive reinforcement for this proposition came from the results of Bloom's (1985) pioneering and oft-cited qualitative study of the development of 120 world-class pianists, neurologists, swimmers, chess players, mathematicians, and sculptors. His study found that, "only a few of [the sample] were regarded as prodigies by teachers, parents, or experts" (p. 533). Rather it was effort that was sharply foregrounded as the differentiating factor since accomplished individuals in the study "worked day after day, for at least 10 or 15 years, to reach the top of their fields" (Duckworth *et al.*, 2007, p. 1100).

Furthermore, the significance of effort for high accomplishment was underscored in the study's findings that two of the general qualities possessed by high achievers included a desire to reach "a high level of attainment" in that field, and a "willingness to put in great amounts of time and effort" (Bloom, 1985, p. 544). The veracity of these observations has only strengthened over time as "*later research building on this pioneering study [has] revealed that the amount and quality of practice were key factors in the level of expertise people achieved*" and "*consistently and overwhelmingly, the evidence showed that experts are always made, not born*" (italics in the original) (Ericsson *et al.*, 2007, pp. 114-115).

The three key attributes of effort and their two mediating meta-processes

This paper has thus far established the multidimensional nature of high achievement and it has situated effort on one of these dimensions as an empirically evidenced correlate of high accomplishment. It will now argue that three key attributes characterise such effort that correlates to expert performance. These attributes are the ten years or 10,000 hours rule, deliberate practice and the non-cognitive trait of grit. In addition it will also emphasise two meta-processes of mindset and explanatory style that appear to mediate the three attributes of effort. These meta-processes are bipolar i.e. each of them has a negative anchor on a continuum that defines the process (Peterson and Seligman, 2004, p. 22). For mindset, a fixed mindset vs a growth mindset anchor opposite ends of the continuum. For explanatory style, a pessimistic explanatory style vs an optimistic explanatory style anchor opposite ends of the

continuum. Each of the attributes and the meta-processes will now be examined in turn in order to distil insights relevant to this paper's inquiry on the leadership practice of excelling at work.

Attribute 1: the ten years or 10,000 hours rule. At its core, the ten years or 10,000 hours rule is the presumption that "becoming an expert in almost anything requires literally years of work. Expertise is not solely a cognitive affair" (Hunt, 2006, p. 36). It was almost 40 years ago that, Chase and Simon (1973) had observed from their data that nobody had attained the level of an international chess master "with less than about a decade's intense preparation with the game" and they had suggested similar prerequisites in other domains (p. 402). Their ten-year rule has subsequently been supported by data from a wide range of domains including music, mathematics, tennis, and long-distance running. Elite performance it appears is attained gradually and around ten years of intense preparation are necessary for international level performances in traditional domains (Bloom, 1985; Ericsson, 1996, p. 12; Ericsson *et al.*, 1993, p. 366).

As Ericsson *et al.* (2007) confirm:

> Our research shows that even the most gifted performers need a minimum of ten years (or 10,000 hours) of intense training before they win international competitions. In some fields the apprenticeship is longer: It now takes most elite musicians 15 to 25 years of steady practice, on average, before they succeed at international level [...] Not only do you have to be prepared to invest time in becoming an expert, but you also have to start early – at least in some fields (p. 118).

This need to budget for significant amounts of time was confirmed in Ericsson's own study with violinists. By the age of 20, the top-level violinists in the study had practiced an average of more than 10,000 hours, approximately 2,500 hours more than the next most accomplished group of expert violinists and 5,000 hours more than the group who performed at the lowest expert level (Ericsson *et al.*, 1993).

The above précis on the ten years or 10,000 hours rule comes with an important caveat that even such extraordinary commitments of time for intense practice and preparation only guarantee "simple expertise, not the mastery that is associated with high accomplishment" (Simon, cited in Murray, 2003, p. 392). Ericsson *et al.* (1993) clarify why this is so by arguing that:

> To make an eminent achievement, one must first achieve the level of an expert and then in addition surpass the achievements of already recognised eminent people and make innovative contributions to the domain. Expert performance reflects mastery of the available knowledge or current performance standards and relates to skills that master teachers and coaches know how to train. Eminent performance requires that the individual go beyond the available knowledge in the domain to produce a unique contribution (pp. 366 and 392).

What is unequivocally evident from the research, however, is that expert and exceptional performance "reflects extreme adaptations to demands in restricted well-defined domains" that is only "accomplished through life-long effort" (Ericsson and Charness, 1994, p. 744).

Attribute 2: deliberate practice

It is this "life-long period of deliberate effort to improve performance in a specific domain" that sets expert performers apart from normal adults and clarifies that they are not just "domain-specific experts" but also experts "in maintaining high levels of practice" (Ericsson *et al.*, 1993, p. 400). However, "not all practice makes perfect"

(Ericsson *et al.*, 2007, p. 116) and it is the amount of a specific type of practice called deliberate practice that is consistently correlated with expert-level performance. This type of practice has four characteristics: "firstly, the subjects' motivation to attend to the task and exert effort to improve their performance; secondly, a task-design that accounts for pre-existing knowledge and requires only a brief period of instruction; thirdly, immediate informative feedback and knowledge of the results of their performance; and finally, repetitive performance of the same or similar task" (Ericsson *et al.*, 1993, pp. 367 and 392).

The goal of deliberate practice is not doing more of the same. Rather it involves engaging with full concentration in highly structured activities that have been specifically designed to improve one's current level of performance. Its requirement of focused attention to maximise feedback and information about corrective action is, however, antithetical to the Csikszentmihalyi's (2003) concept of flow with its "loss of ego" and its notion that one "tends to forget not only one's problems and surroundings, but one's very self" (p. 55).

Deliberate practice also differs from other domain-related activities like work and play. On the one hand, it is effortful and not inherently motivating like play, and on the other hand, unlike work it does not lead to immediate social and monetary rewards. It does, however, provide optimal opportunities for learning and skill acquisition and researchers argue that there is a "monotonic relation between current level of performance and the accumulated amount of deliberate practice for individuals attaining expert performance" (Ericsson and Charness, 1994, p. 739; Ericsson *et al.*, 1993, pp. 368 and 390).

Attribute 3: grit – perseverance and passion for long-term goals. There is something in addition to its relationship with current levels of performance that makes deliberate practice even more significant for high accomplishment. It is its importance as a behavioural mechanism that links a special personality trait called grit from the big five conscientiousness family to the achievement motivation. This mechanism has been evidenced by scientists involved in identifying and researching the contribution of non-cognitive skills and traits to human development and success. In a study of finalists in the scripps National Spelling Bee in the USA, for example, mediation analysis revealed that time spent on deliberate practice fully explained the correlation between this trait called grit and spelling bee performance (Duckworth and Eskries-Winkler, 2013; Duckworth *et al.*, 2007, p. 1097; Hanford, 2012).

Duckworth *et al.* (2007) define grit as, "perseverance and passion for long-term goals" entailing working "strenuously towards challenges, maintaining effort and interest over years despite failure, adversity, and plateaus in progress". This definition of grit and description of its characteristics is significant to this paper for two reasons. First, it highlights a counterintuitive relationship between grit and talent. Second, it also makes a differentiation between grit and self-discipline that has important implications. Both these reasons are therefore discussed below (Duckworth *et al.*, 2007, pp. 1087-1088).

First the connection between talent and grit: Buckingham and Coffman (2005) attribute a preeminent position to talent as one of the distinctive elements of an individual's performance. They define talent "*as a recurring pattern of thought, feeling, or behaviour that can be productively applied*" (p. 67) and argue that while, "*experience, brainpower and will-power all affect performance significantly, only the presence of right talents […] can account for […] range in performance*" (italics in the original) (p. 71). In addition, qualitative insights for over a century and evidence from contemporary

investigations both suggest that in every field, talent and grit are equally essential to high accomplishment (Bloom, 1985; Duckworth *et al.*, 2007, p. 1100; Galton, 1869/1892).

Despite their joint importance to high accomplishment, Duckworth and Eskries-Winkler (2013) find that the relationship between talent and grit is not mutually reinforcing. Prodigious talent therefore is no guarantee for grit and in most samples talent and grit are either orthogonal (unrelated) or slightly negatively correlated. This conclusion has been supported by objective measures of achievement that are typically lognormal in distribution. For example Shockley (1957) found this pattern in the publication of scientific papers since a very few people published many papers, but most scientists published none or only one (p. 286). Ergo, individuals who are both extremely talented and extremely gritty should be particularly rare (Seligman, 2011a, p. 120).

Second, the divergence of grit from self-discipline: in earlier studies Duckworth and Seligman (2005) had already found that while "intellectual strengths (e.g. long-term memory, ability to think abstractly) and non-intellectual strengths (e.g. motivation, self-discipline) both contribute to a student's academic performance" (p. 939), it was "self-discipline" that "predicted academic performance more robustly than did IQ" (p. 942).

Duckworth extends this argument further by hypothesising that while self-discipline is an excellent predictor of one's ability to follow-through on certain types of difficult tasks, it is not the most important factor when it comes to predicting success at extremely high-challenge achievement (TEDxTalks, 2009). This is because while self-discipline can help the individual finish "tasks at hand" with "short-term intensity", complex and long-term projects demand grittiness – a trait that helps the individual "approach achievement as a marathon" where "his or her advantage is stamina". Grit then is about sustaining both effort and interest over the long term. This ensures that whereas "disappointment or boredom signals to others that it is time to change trajectory and cut losses, the gritty individual stays the course" (Duckworth *et al.*, 2007, pp. 1087-1089; Zhivotovskaya, 2009).

The mediating meta-processes: the concept of resilience as an organising framework. The nature and characteristics of the effort required for high accomplishment have been examined thus far using effort's three attributes as the lens: 10,000 hours or the ten-year rule; deliberate practice; and the non-cognitive trait of grit. The two bipolar meta-processes of mindset and explanatory style that mediate such effort will now be explored to summate this discussion on the relationship between effort and high achievement. To this end this paper takes cognisance of the burgeoning research into the human responses to extreme adversity and the marked value of those insights for its present inquiry. It argues that the concept of human resilience in the face of either extreme adversity and/or life's significant challenges is a useful organising framework for parsing the relevant learning from this domain. It therefore evaluates the seminal importance of mindset and explanatory style as mediating meta-processes for the three attributes of effort from the vantage point of human resilience.

Masten (2001) defines resilience as "good outcomes in spite of serious threats to adaptation or development" (p. 228). A narrower interpretation of this definition of resilience to mean "any behavioural, attributional, or emotional response to a […] social challenge that is positive and beneficial for development [and] essential for success […] in life" aligns well with this paper's search for efficacious responses to adversity and challenge (Yeager and Dweck, 2012, pp. 302-303). It is this metric of human beings' reaction to extreme adversity that Seligman (2011b) conceptualises

as a normal distribution with resilience in the centre. This is a useful structural device to understand resilience, as the positive middle road between two extreme human reactions to very difficult challenges: with "post-traumatic stress disorders, depression and even suicide" at one end; and "post-traumatic growth" where they are "better-off than they were before the trauma" at the other (p. 103).

Experiments conducted almost half a century ago provide compelling evidence that resilience is not exclusively a quality of a person or of a context, but depends on an individual's "theory of personal control". It is this perceived sense of control both over adverse circumstances and the means and mechanisms of responding to them that determines whether an individual learns helplessness or optimism (Hiroto and Seligman, 1975; Maier and Seligman, 1976; Seligman, 2011b, p. 102). The theory of personal control is intimately related to the two mediating meta-processes of explanatory style and mindset. This is because both explanatory style and mindset provide complementary, credible and evidence-based rationales for why individuals respond the way they do to extreme adversity and/or preponderant challenges. Notwithstanding the philosophical resonance between the meta-processes of explanatory styles and mindsets, however, their approaches to resilience are unique and different.

Alternative lenses 1: explanatory styles, learned optimism and building resilience. Seligman (1990/2006) stresses that one's explanatory style "is a habit of thought learned in childhood and adolescence" and stems from one's view of one's "place in the world". Permanence, pervasiveness, and personalisation are the "three crucial dimensions" of one's explanatory style (p. 44). Pessimists think in self-defeating ways "making permanent, pervasive and personal explanations for bad events" (p. 77). Individuals, who persevere against the odds on the other hand, are optimists who have a "habit of interpreting setbacks as temporary, local and changeable" (Seligman, 2011b, p. 102).

Resilience from an explanatory styles perspective therefore requires building individuals' mental toughness choosing, for example (as appropriate), from a family of psychotherapies including Aaron Beck's Cognitive Therapy (CT) and Albert Ellis' Rational Emotive Behaviour Therapy (REBT), both of which have been developed, refined and practiced efficaciously for over 60 years. CT and REBT are not just a set of techniques but also comprehensive theories of human behaviour that proffer a bio-psychosocial explanation of causation. Both work on the basis that what we think determines how we feel and achieving fundamental and lasting change in one's explanatory style involves modifying the underlying core beliefs that shape the cascade of emotional and behavioural responses that follow from an activating event (Beck, 1967; Beck and Beck, 1995; Ellis and Dryden, 1997; Ellis and Harper, 1975).

Alternative lenses 2: mindset, entity and incremental theories and resilience . The concept of explanatory style is complementary to the research on mindset, which argues that people hold either one of two very different and opposing beliefs or implicit theories about the nature of their core human attributes such as intelligence and personality (Dweck, 2012, p. 615; Dweck *et al.*, 1995). They either believe that these core qualities are built-in and fixed by nature (an *entity theory* or *fixed mindset*) or they believe that their core qualities can be developed through nurture and their own persistent effort (*an incremental theory or growth mindset*) (italics in original). It is of material import whether people's implicit theories lead them to believe in a fixed mindset or a growth mindset (Dweck, 2012, p. 614; Dweck, 2008, pp. 55-56).

This is because just like implicit theories of personality have their effects by "fostering patterns of attributions and emotions" about both the other and the self

(Yeager and Dweck, 2012, p. 307), similarly implicit theories of intelligence have their effects by presuming that intelligence is either static (fixed mindset) or that it can be developed (growth mindset). Notwithstanding, the nature of the mindset – fixed or growth – a given implicit theory therefore fosters particular judgements and reactions that argue consistent patterns of vulnerability or resilience over time (Dweck *et al.*, 1995; Olson and Dweck, 2008).

The choice between an entity theory fixed mindset and an incremental theory growth mindset is presented as binary. The fixed mindset is unambiguously classified as a limiting mindset because it is predicated on the core belief that intelligence is static. This worldview precipitates a number of defensive routines including: a desire to look smart that argues in favour of avoiding challenges that appear difficult; a propensity to devalue effort; and an attitude that stymies continuous learning. In contrast the growth mindset is positioned on the core premise that intelligence is plastic and can be developed over one's lifetime. This worldview leads to an enabling and adaptive resilience to adversity and challenges. The growth mindset is therefore advocated as engendering free will while the fixed mindset is censured as being limited and deterministic (Dweck, 2006, pp. 22, 205-206).

Drawing the strings together on effort for eminence. As the preceding narrative has detailed, the nature of effort that leads to eminence and provides one with the sustained ability to persevere and succeed against extreme adversity, is very nuanced. It includes theoretical constructs that span a 150 years of temporal time, and emerging concepts that straddle and inform a variety of emerging practices for succeeding against extreme adversity and for demonstrating high accomplishment. In the process they complement and extend many of the topics that this paper has considered including amongst others, individual agency, meaningful work, flow, and self-control.

Conclusion

Complex environments require individual and collective agency for efficacious and adaptive responses. Extant theories and new insights on phenomena, concepts, and constructs that straddle many disciplines and multiple timelines interconnect and at times intersect to form an empirically validated narrative on the zeitgeist leadership practice of excelling at work.

In doing so they explicate the enactments of this vital leadership practice that enable it to underwrite exemplary organisational performance in VUCA contexts. These include amongst others: intrinsic motivation – effectance, progress principle, and meaningful work; vital engagement – optimal experience, flow, and job crafting; eudaimonia – authenticity, and signature strengths; mindfulness – moment-to-moment awareness, purposeful attention and utilising experience to transform the brain to transform the mind; self-control – delayed gratification and the strategic allocation of attention; and extreme effort – the grit and resilience required for overcoming adversity and/or achieving eminence and high accomplishment.

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