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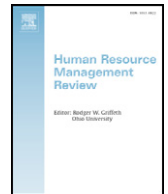


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The potential role of mindsets in unleashing employee engagement☆



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ABSTRACT

Engaged employees work vigorously, feeling dedicated and mentally absorbed in their work. Much is known about the kinds of jobs and work environments that stimulate employee engagement, yet levels of disengagement remain high in many organizations. To provide fresh insights into how to increase engagement, we draw on theory and research in social, educational, and organizational psychology to illuminate how mindsets are a personal resource that may influence employees' engagement via their enthusiasm for development, construal of effort, focus of attention, perception of setbacks, and interpersonal interactions. We outline several avenues for future research, as well as practical implications for organizational, managerial, and individual-level initiatives for increasing engagement via supporting employees in adopting and sustaining a growth mindset with regard to the challenges they encounter at work.

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(No) company, small or large, can win over the long run without energized employees ... That is why you need to (be concerned with) levels of employee engagement.

[- Welch and Welch (2006, p. 126)]

1. Introduction

According to Gallup's, 2013 142-country study on the *State of the Global Workplace*, only 13% of employees worldwide report that they are engaged at work. In contrast, 63% of employees are not engaged and another 24% are actively disengaged. While some (e.g., Zenger, 2013) question the massive prevalence of disengagement reported by Gallup, given that engaged employees are a key ingredient for a productive workforce (Christian, Garza, & Slaughter, 2011; Harter, Schmidt, & Hayes, 2002), fresh avenues for understanding and increasing engagement are a topic of enduring interest to human resource management scholars and practitioners alike.

Engagement is a fulfilling psychological state characterized by vigor, dedication, and absorption in one's work¹ (Macey & Schneider, 2008; Schaufeli et al., 2002). When employees are engaged, they experience their work as something to which they really

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¹ Engagement has also been conceptualized as both a trait and a behavior (Macey & Schneider, 2008). Given that state engagement is thought to precede behavioral engagement (Macey & Schneider, 2008) and can better explain within-person fluctuations in engagement than a dispositional approach (Dalal, Brummel, Wee, & Thomas, 2008), numerous leading scholars (Griffin, Parker, & Neal, 2008; Harter & Schmidt, 2008; Macey & Schneider, 2008; Schaufeli, Salanova, González-Romá, & Bakker, 2002) have argued that engagement is most usefully and appropriately conceptualized as a state. This paper thus focuses on the potential role of mindsets in state engagement.

want to devote time and vigorous effort; as a significant and meaningful pursuit to which they feel genuinely dedicated; and as sufficiently absorbing to concentrate their full attention. Engaged employees harness themselves to what they are doing by fully investing their heads, hearts, and hands in performing their role (Rich, Lepine, & Crawford, 2010).

In his pioneering statement about the nature of engagement, Kahn (1990) suggested that people are emotionally and cognitively engaged when they know what is expected of them, have what they need to do their work, have opportunities to feel an impact and fulfillment in their work, perceive that they are part of something significant with coworkers whom they trust, and have chances to improve and develop themselves and others. Disengaged employees just go through the motions. Uninspired role performances result from individuals withholding their full effort, attention, and emotional investment in their work. Distractions reduce mental and behavioral focus. By acting in a perfunctory manner, people's true identities, thoughts, and feelings are not manifest in their work. Emotional connections with others (e.g., customers, clients, colleagues) are diluted or severed in the process (Kahn, 1990). Alternatively, when employees are engaged, resulting motivation, proactivity, and empathy – manifest through both in-role and extra-role performance (Salanova & Schaufeli, 2008) – can yield improvements in learning, profits, sales, customer ratings, accidents, and turnover (Christian et al., 2011; Harter et al., 2002; Salanova, Agut, & Peiró, 2005).

Following the seminal work of Kahn (1990) and Schaufeli et al. (2002), a substantial literature has evolved regarding the antecedents of engagement. To complement this literature, this paper aims to explain how employees' engagement may also depend upon their mindsets about the plasticity of the abilities required for the task at hand (Dweck, 1986, 1999, 2006).

We begin by briefly reviewing the hallmarks and antecedents of employee engagement, before outlining the nature and sources of mindsets. Next we illuminate how employees' mindsets may affect whether they approach their work with energy and focus that signifies engagement, or with the ambivalence, anxiety, and risk avoidance indicative of disengagement (Kahn, 1990). We then suggest a range of avenues for future research regarding how mindsets may interact with other antecedents of engagement. We conclude by responding to the call by leading human resource management scholars (e.g., Cascio, 2008; Latham, 2012; Rynes, Giluk, & Brown, 2007) for concrete statements about precisely how basic research findings might be applied to address important practical challenges within the workplace. Specifically, we show how organizations, managers, and employees can foster the type of mindset that likely facilitates employee engagement.

2. Hallmarks of employee engagement

Grounded theorizing by Kahn (1990) revealed that moments of personal engagement stem from work contexts viewed as psychologically meaningful and safe, as well as those that enable psychological availability (see also May, Gilson, & Harter, 2004). *Psychological meaningfulness* is experienced when people feel worthwhile, useful, and valuable. Such feelings result from jobs involving challenge, variety, creativity and autonomy, work roles that provide people with attractive identities and status, as well as interpersonal interactions that promote dignity, self-appreciation, and a sense of making a positive difference (cf. Grant, 2007).

Psychological safety is marked by people sensing that they can express and devote themselves without fear of negative consequences to their self-image, status, or career (Kahn, 1990). Psychological safety results from trusting relationships (especially with superiors), well-defined roles and expectations that clarify the bounds for safely expressing oneself, and sensing that failed initiatives are more likely to be occasions for learning than strife. In lieu of such protective boundaries, people can feel unsafe and thus guard themselves by withdrawing rather than whole-heartedly investing themselves in their work (cf. Edmondson, 1999).

Psychological availability is the “sense of having the physical, emotional, or psychological resources to personally engage during a particular moment” (Kahn, 1990, p. 714). It is a crucial psychological condition for full engagement with one's work, as being available requires security in one's abilities and status that enables “a focus on tasks rather than anxieties” (Kahn, 1990, p. 716).

3. Antecedents of employee engagement

Perhaps the most widely applied framework for studying engagement is the job demands–resources (JD-R) model (Bakker & Demerouti, 2007; Bakker, Demerouti, & Verbeke, 2004; cf. Saks & Gruman, 2014). According to this model, high job demands (e.g., work overload, job insecurity, role ambiguity, time pressure, and role conflict) undermine engagement by exhausting employees' mental, emotional, and physical resources. On the other hand, job resources help individuals to achieve their work goals and reduce job demands. Job resources may emanate from the organization (e.g., pay, career opportunities, job security), interpersonal relations (e.g., with one's supervisor and/or coworkers), the organization of work (e.g., role clarity and participation in decision making), and from the task itself (e.g., via skill variety, task identity, task significance, autonomy, performance feedback). Bakker and Demerouti (2007) proposed that job resources increase employee engagement by building both intrinsic and extrinsic motivation, as well as by buffering the potentially exhausting impact of job demands.

Consistent with the JD-R model, a meta-analysis by Christian et al. (2011) found that job characteristics such as autonomy, task variety, task significance and feedback function as resources that increase engagement, as do problem solving, job complexity and social support. Christian et al. (2011) also reported that engagement is reduced by high physical demands (i.e., the amount of physical effort necessary for a job) and harsh working conditions (e.g., health hazards, temperature, and noise).

Other resources that foster employee engagement include transformational leadership and leader–member exchange (Christian et al., 2011), having a manager who is engaged and appreciative (May et al., 2004), anti-sexual harassment practices (Jiang et al., 2015), and a work environment in which employees are consulted, appreciated, and have a best friend (Harter et al., 2002). Engagement is also higher when employees have adequate restorative non-work recovery (i.e., rest; Sonnentag, Mojza, Demerouti, & Bakker,

2012) and meaningful work (Soane et al., 2013). Finally, employee engagement is increased by High Commitment HRM practices, such as continuous training, high job security, development opportunities, career management, job rotation, and extensive benefits packages (Alfes, Truss, Soane, Rees, & Gatenby, 2013), particularly among employees with low task proficiency regarding their work role (Boon & Kalshoven, 2014).

In contrast to this voluminous literature on contextual factors, there have been relatively few studies on the role of individual differences in engagement (Saks & Gruman, 2014). Notable exceptions include research showing that employees' engagement is predicted by their psychological capital (Avey, Wernsing, & Luthans, 2008), core self-evaluations (Rich et al., 2010), as well as conscientiousness and proactive personality (Christian et al., 2011).

Hobfoll's (1989, 2002) Conservation of Resources (COR) theory suggests that people strive to attain and protect resources that they value or that aid them in obtaining other valued resources. Drawing on Hobfoll's (1989) notion of *personal characteristics* as resources that are important for individual adaptability, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007) extended the range of resources encompassed by the JD-R model of employee engagement to include *personal resources* – defined as “aspects of the self that are generally linked to resiliency and refer to individuals' sense of their ability to control and impact upon their environment successfully” (p. 124) – such as self-efficacy, optimism, and organization-based self-esteem.

Inspired by Latham's (2012) proposal that useful advances in human resource management and organizational psychology may stem from drawing upon well-developed concepts in other areas of psychology, we draw on almost three decades of theory and research in social, educational, and organizational psychology to illuminate how the concept of mindsets (Dweck, 1986, 1999, 2006) may be an additional personal resource that paves the way for a fresh, conceptually-derived approach to understanding, predicting, and facilitating employee engagement. Personal resources can facilitate goal achievement, buffer the psychological and physiological effects of threats and/or demands, as well as foster personal growth and development (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). As detailed below, growth mindsets enable goal attainment, minimize the impact of adversity, and stimulate development by virtue of emphasizing the plasticity of one's abilities. By introducing mindsets as a personal resource to the engagement literature, we show how mindsets help answer the perennial questions of why some employees tend to be more engaged than others, and more or less engaged at some moments than others. The answers we provide, in terms of employees' prevailing mindsets, have clear and viable practical implications for enabling increased engagement. Next we discuss the nature of mindsets, before explaining the mechanisms whereby mindsets may influence employees' engagement.

4. Mindsets

Mindsets are the implicit theories or assumptions that people hold about the plasticity of their abilities. An *entity implicit theory* (Dweck, 1986), intuitively relabeled by Dweck (2006) as a *fixed mindset*, reflects the underlying assumption that an ability is largely a static, fixed entity that is not amenable to being changed very much.² A fixed mindset is exemplified in statements that underscore limitations in the scope for people to develop, such as “You can't really teach an old dog new tricks,” and “You can't make a silk purse out of a sow's ear.” On the other hand, an *incremental implicit theory* (Dweck, 1986), relabeled as a *growth mindset* (Dweck, 2006) embodies the assumption that abilities are malleable and can be cultivated through concerted effort. Statements underscoring the process of ability and skill development, such as “Talents are developed, not discovered” and “Things are almost always hard before they are easy,” reflect a growth mindset.

Mindsets are a mental framework that guide how people think, feel, and act in achievement contexts (Dweck, 1999). Decades of research in domains such as educational (e.g., Blackwell, Trzesniewski, & Dweck, 2007), social (e.g., Beer, 2002), and organizational (e.g., Heslin, Latham, & VandeWalle, 2005) psychology have revealed the self-regulatory and interpersonal implications of mindsets. When people hold a fixed mindset, the assumption that abilities cannot be altered very much leads them to avoid challenges that might expose an inherent ability deficiency (Hong, Chiu, Dweck, Lin, & Wan, 1999). A fixed mindset inclines people to view effort as fruitless (Mueller & Dweck, 1998) and to ignore negative and potentially helpful feedback (Heslin & VandeWalle, 2005, April). The assumption that abilities are immutable also prompts those with a fixed mindset to rapidly judge people for their perceived transgressions (Erdley & Dweck, 1993) that can strain their relationships with others (Knee, Patrick, & Lonsbary, 2003).

When people have a growth mindset, however, they tend to embrace challenges and construe effort as crucial for mastering tasks (Blackwell et al., 2007). The belief that abilities are malleable prompts people to seek and pay attention to corrective feedback (Heslin & VandeWalle, 2005, April; Mangels, Butterfield, Lamb, Good, & Dweck, 2006) and to perceive setbacks as reflecting a need for more effort and better strategies, rather than indicative of limited ability. Instead of condemning others for their perceived wrongdoings (Erdley & Dweck, 1993), a growth mindset is associated with helping others to develop and change (Heslin, VandeWalle, & Latham, 2006).

While mindsets occur on a continuum between the fixed and growth prototypes, most people typically hold either a primarily fixed or growth mindset about their abilities in particular areas (Burnette et al., 2013). For instance, a person could hold a growth mindset about her quantitative ability and a fixed mindset about her ability to work with difficult customers (Dweck, 1999). Mindsets are also only weakly empirically related to personality (e.g., Spinath, Spinath, Riemann, & Angleitner, 2003), which suggests they exist independently of personality rather than emanating from it.

Although relatively few studies have examined mindsets in the context of work (see Heslin and colleagues for exceptions), the related construct of goal orientation (cf. DeShon & Gillespie, 2005) has been linked to task specific self-efficacy, self-set goal level,

² Although the more accessible term “mindsets” is increasingly used instead of the original “implicit theories” term within the scholarly literature on this construct (e.g., Burnette, O'Boyle, VanEpps, Pollack, & Finkel, 2013; Yeager & Dweck, 2012), note that the ontology of implicit theories and mindsets is identical.

and feedback seeking, as well as more distal employee outcomes such as task and job performance (Payne, Youngcourt, & Beaubien, 2007), innovative job performance and job satisfaction (Janssen & Van Yperen, 2004). Chughtai and Buckley (2011) also observed that a learning goal orientation partially mediates the effects of work engagement on in-role job performance and innovative behavior.

Dweck and Leggett (1988) suggested that a performance goal orientation within a particular context stems from a fixed mindset, while a growth mindset primes the setting of learning goals that are the hallmark of a learning goal orientation (VandeWalle, 1997). The goal orientation literature has been nonetheless beset by definitional ambiguity with goal orientation being variously conceptualized as a dispositional trait (e.g., Bell & Kozlowski, 2002; VandeWalle, 1997), a quasi-trait (e.g., Button, Mathieu, & Zajac, 1996; Mangos & Steele-Johnson, 2001), achievement goals (e.g., Harackiewicz, Barron, Tauer, & Elliot; Karabenick & Collins-Eaglin, 1997), mental frameworks (e.g., Lee, Sheldon, & Turban, 2003; Strage, 1997), and beliefs (Franken & Brown, 1995; Hertenstein, 2001; cf. DeShon & Gillespie, 2005).

DeShon and Gillespie (2005, p. 1101) thus concluded that “The multiple definitions of goal orientation provide an unstable foundation for research on the antecedents and consequences of the goal orientation construct.” In order to transcend such issues, as well as the ambiguity about how to interpret different permutations of goal orientations (i.e., various combinations of high, medium, and low levels of each type of goal orientation), this paper focuses on explicating the various employee engagement-related self-regulatory and interpersonal implications of the relatively more parsimonious concept of mindsets.

4.1. Sources of mindsets

While naturally occurring chronic mindsets can be relatively stable (Robins & Pals, 2002), Dweck, Chiu, and Hong (1995) conceptualized mindsets as malleable personal qualities, rather than as fixed traits that can be cultivated by persuasive messages, similarly to other malleable dispositions such as hope (Seligman, 1998) and optimism (Snyder, 2002). Consistent with this conceptualization, research has revealed that fixed and growth mindsets can be fostered by emphasizing the diagnosticity versus learnability of a given task (Wood & Bandura, 1989), reading scientific testimonials that endorse a fixed or growth mindset (Kray & Haselhuhn, 2007), as well as self-persuasion based interventions (Aronson, Fried, & Good, 2002; Heslin et al., 2005). Mindsets can also be induced by working in an environment that endorses either a largely fixed or malleable view of intelligence. In a *culture of genius* (Murphy & Dweck, 2010), people share the belief that talent and intelligence are fixed attributes that are prime drivers of performance capabilities, as embodied in organizations such as Enron that:

... prized “sheer brainpower” above all else, where the task of sorting out “intellectual stars” from the “merely super-bright” was the top priority when making hires and promotions. It was an environment where one of the most powerful executives was described as being so sure that he was the smartest guy in the room that anyone who disagreed with him was summarily dismissed as just not bright enough to “get it.”

[(McLean & Elkind, 2003, cited in Murphy & Dweck, 2010, p. 283)]

On the other hand, *cultures of growth* (Murphy & Dweck, 2010) are marked by collective endorsement of the belief that talent and intelligence can be cultivated. Within organizational cultures of growth, people are more likely to be *built* rather than *bought* from the external labor market, as shown by human resource management strategies that place a greater emphasis on training and development, relative to recruitment and selection.

Within homes and classrooms, fixed mindsets are cued when successful performances are attributed to the traits of being “smart” or “brilliant,” rather than to having worked hard (Mueller & Dweck, 1998). Even praise such as “you are a good drawer” (Cimpian, Arce, Markman, & Dweck, 2007, p. 314) implies an underlying and perhaps innate drawing ability that is not possessed by those who are not “a good drawer.”

In a similar vein, employees are likely to hold fixed mindsets when they routinely receive praise from managers or leaders that focuses on who they are, rather than what they did to achieve high performance. As people often strive to live up to the labels assigned to them (McNatt, 2000), an employee labeled as “brilliant” may subsequently shun challenging tasks and contexts in which their identity and reputation for being a gifted genius might be jeopardized (Dweck, 2006).

By contrast, growth mindsets are cued when successful performances are attributed to working hard and people are praised for their effort and initiative (Mueller & Dweck, 1998). People are subsequently more likely to persist in making considerable investments in knowledge and skill development, even when the payoff for doing so is not readily apparent (Dweck, 2006).

5. Employees' mindsets and engagement

Mindsets potentially influence employees' engagement in several ways; specifically, via their enthusiasm for development, construal of effort, focus of attention, interpretation of setbacks, and interpersonal interactions, as depicted in Fig. 1.

5.1. Enthusiasm for development

When people possess a fixed mindset, they believe that little can be done to improve their presumably rigid abilities. This assumption inclines people to view challenging tasks as tests that could diagnose inherent ability deficiencies. Those with a fixed mindset thus often disengage from potentially enlightening challenges (Dweck, 1999). In a study of entering freshman at a university in Hong Kong,

Antecedents of Mindsets and Paths to Employee Engagement

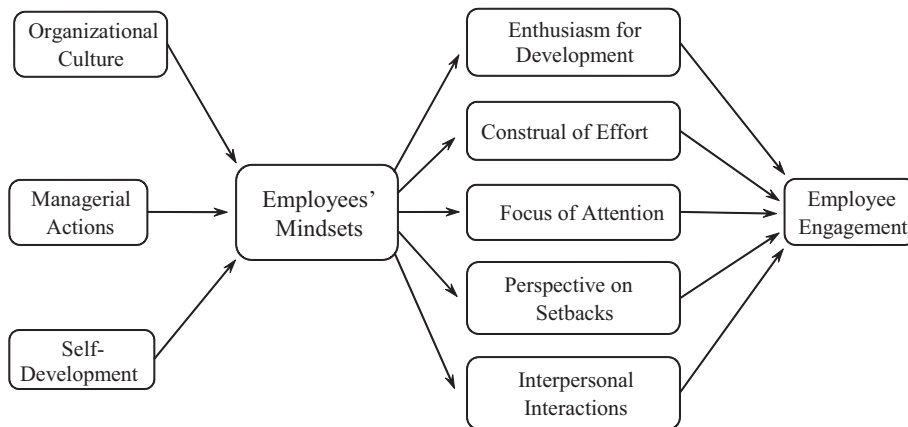


Fig. 1. Antecedents of mindsets and paths to employee engagement.

where English proficiency is necessary, [Hong et al. \(1999\)](#) identified students who could benefit from taking a remedial English class. After assessing their mindset, Hong et al. asked these students about their willingness to take the class. Those students who held a fixed mindset were less willing to take the remedial class than their peers holding a growth mindset. In fact, in order to avoid jeopardizing their psychological safety by acknowledging a deficiency and proactively working to remedy it, the students with a fixed mindset were willing to risk both their academic standing and subsequent job prospects.

On the other hand, a growth-oriented assumption of one's abilities leads people to engage in developmental opportunities, even if doing so risks encountering setbacks or poor performance. [Beer \(2002\)](#) observed that mindsets differentially affect how introverts approach social situations. Specifically, as those with a growth mindset believed that they could learn to improve their sociability and eventually master their shyness, they construed social situations as valuable opportunities to learn. In doing so, they used less avoidant and more proactive social strategies than their introverted peers who held a fixed mindset. By actively engaging with and practicing during typically daunting social encounters, introverts with a growth mindset were eventually viewed as more socially competent by others than those with a fixed mindset. Taken together, these studies illustrate how a fixed mindset can lead people to avoid engaging in challenging developmental opportunities.

Proposition 1. *A fixed mindset impedes employees' engagement by virtue of diminishing their enthusiasm for development.*

5.2. Construal of effort

Is expending a great amount of effort essential for learning and high performance, or indicative that one lacks the natural talent to succeed? Through the lens of a fixed mindset, people essentially either have high ability or need to exert considerable effort, reflecting an assumption that significant effort is only needed by those who are not innately talented in a particular domain ([Dweck, 2006](#)). It is thus not surprising that people are reluctant to exert high effort when they are focused on validating their ability. For instance, [Mueller and Dweck \(1998\)](#) cued fixed mindsets by attributing participants' purported strong performance on a moderately difficult task to them "being smart," while growth mindsets were cued by attributing other participants' performance on this task to them having "worked hard." All participants were then given an even more challenging task. After encountering failure, not only did those praised for "being smart" report enjoying the task less, but they exerted less effort and exhibited less task persistence, relative to those praised for their hard work. This illustrates that while growth mindsets are focused on what you do (i.e., work hard), fixed mindsets are focused on who you are (i.e., smart).

[Blackwell et al. \(2007\)](#) observed that when people have a growth mindset they hold more positive beliefs about the value of effort. Following a sample of students in junior high school, an upward trajectory of mathematics grades was linked to assumptions regarding the utility of effort in overcoming difficulty. When students held a growth mindset, they attributed their poor performances mostly to a lack of effort and subsequently deployed more effort-based strategies (e.g., spending more time studying for tests) to boost their mathematics achievement, rather than helpless responses (e.g., procrastination and avoiding retaking the subject). A fixed mindset tendency to question one's aptitude for a task when considerable effort is expended is likely to undermine the psychological availability that is essential for engagement. In contrast, a growth mindset inclination to see the power of effort to develop initially inadequate ability can prompt vigorous dedication to the task at hand.

Proposition 2. *A growth mindset facilitates employee engagement by cuing more positive beliefs about effort than a fixed mindset.*

5.3. Focus of attention

A hallmark of engagement is attentiveness to what is occurring in the present moment (Kahn, 1990). Such attentiveness facilitates interpersonal relationships, as well as learning and performance on difficult and dynamic tasks. Inadequate attentiveness can jeopardize safety, potentially leading to deadly accidents such as the crash of Comair Flight 5191 in August 2007 that killed 49 of the 50 people on board (Saks, 2008). According to the National Transportation Safety Board (2007, p. 105), the probable cause of the accident was:

... the flight crewmembers' failure to use available cues and aids to identify the airplane's location on the airport surface during taxi and their failure to cross-check and verify that the airplane was on the correct runway before takeoff. Contributing to the accident were the flight crew's nonpertinent conversations during taxi, which resulted in a loss of positional awareness.

Mindsets play an important role in vigilance to important information, as shown by research focused at the attentional and neuropsychological levels. Plaks, Dweck, Stroessner, and Sherman (2001) investigated the attention paid to stereotype-consistent versus inconsistent information as a function of a person's mindset. Across four experiments, those holding a fixed mindset paid more attention to – and showed greater recognition of – stereotype consistent information, while those with a growth mindset did the opposite. Those with a fixed mindset seek and process information in a way that maintains their stereotypes, whereas those with a growth mindset are more open-minded, which likely enables them to transcend their stereotypes (Levy, Stroessner, & Dweck, 1998). The resulting alertness to other people's uniqueness that goes beyond their membership of racial, gender, and other categories, may lay the foundation for the meaningful interactions and relationships that foster engagement.

Mangels et al. (2006) used brainwave monitoring technology to study college students' event-related brain potentials as they completed a challenging general knowledge task. As they completed the task, participants were informed whether each answer was right or wrong, and were soon afterwards given feedback explaining the correct answer for those they had not answered correctly. Who paid attention? The waveforms associated with error detection and correction showed that participants with a growth mindset had considerably more neural activity in the region of the brain that processed corrective feedback, relative to those with a fixed mindset. A growth mindset thereby enhanced learning from the feedback, as revealed by the superior subsequent retest performance of those holding a growth mindset, compared to those with a fixed mindset. This study provides neuropsychological evidence that a growth mindset facilitates attentiveness to the kinds of edifying information that enables learning and skill development.

Both Plaks et al. (2001) and Mangels et al. (2006) show that a growth mindset facilitates the alertness to new, useful information that characterizes the psychological availability associated with engagement. Such open-minded adaptability is a likely asset in dynamic work roles – such as those involving customer service, healthcare, safety, education or knowledge work – wherein effectiveness depends critically upon one's alertness to recognize and respond constructively to unexpected developments.

Proposition 3. *A growth mindset facilitates employee engagement by prompting attentiveness to task-relevant information.*

5.4. Perception of setbacks

Feedback suggesting that one's performance has not met expectations is to be expected in most contemporary work roles. The perception of failures and setbacks, such as whether they reflect limited ability to succeed, affects how people respond, recover, and the extent to which they learn from these disappointments. A growth mindset inclines people to perceive setbacks as an inherent part of the learning process that signals a need for more effective strategies. This leads to choosing to study the strategies of better performers and undertake difficult tasks on which learning (and also the chance of failure) is possible (Nussbaum & Dweck, 2008). In contrast, perceiving setbacks as a negative evaluation of one's ability shortcomings can cue dysfunctional thoughts, feelings, and behaviors, such as studying the strategies of poor or mediocre performers in an attempt to make oneself feel better (Nussbaum & Dweck, 2008). In the face of failures and setbacks, a fixed mindset prompts people to withdraw effort, inflate reports of performance, and disregard potentially helpful feedback (Dweck, 1999, 2006).

Responding to setbacks with a growth mindset is marked by resolute task focus, concerted effort, and methodical strategy development. Learning and performance on complex tasks is thereby enhanced (Blackwell et al., 2007; Wood & Bandura, 1989). For example, in the realm of learning to negotiate – where setbacks and frustrations are rife – holding a growth mindset about one's negotiation ability predicts both negotiating prowess (i.e., value claiming and value creating), as well as performance in both one-shot negotiations and overall learning from a negotiation course (Kray & Haselhuhn, 2007).

Throughout a difficult chemistry course, Grant and Dweck (2003) observed that college students' motivation to learn (reflecting a growth mindset) was associated with mastery-oriented factors such as persistence and strategy development, even after receiving disappointing initial grades. While those focused on validating their intellectual ability (reflecting a fixed mindset) perceived their initial poor performance as diagnostic of what they could achieve, students who were more concerned with learning revised their study strategies in response to this early setback. By the end of the course, these students received the highest grades, by virtue of viewing setbacks as helpful information that could be used to further their development, rather than as indicative of low ability. In contrast to a fixed mindset, a growth mindset is thus likely to enhance engagement by prompting people to perceive setbacks as information about what to do differently, rather than a diagnosis of their low inherent ability.

Proposition 4. *A growth mindset facilitates employee engagement by cuing people to interrogate setbacks for useful information about how to improve.*

5.5. Interpersonal interactions

Most work roles involve interacting with others. Dealing with people in an open, respectful, and helpful manner generally yields interactions that are meaningful and psychologically safe for all concerned (Edmondson, 1999; Kahn, 1990). Mindsets play an important role in whether interactions unfold in this manner, or alternatively in an antagonistic way that leaves the interacting parties feeling judged, disconnected, and frustrated.

The assumption that personality is malleable can reduce negative reactions to social adversities (e.g., being bullied). When students were exposed to a growth mindset intervention that emphasized how people can change, Yeager et al. (2014) observed that participants exhibited less negative reactions to social adversity, lower stress and illness, as well as better grades eight months later. This study reveals how growth mindset interventions can yield positive long-term effects and more specifically, how resilience is fostered by highlighting people's capacity to grow.

Mutually enjoyable interactions potentially reflect a growth mindset inclination to engage with other people in a helpful, rather than a judgmental manner. Conversely, a fixed mindset leads to believing that even a single undesirable behavior sends a clear negative signal about the type of person someone is (Dweck et al., 1995), together with an inclination to stereotype (Levy et al., 1998) and punish them for their perceived transgressions and character flaws. For example, Chiu, Dweck, Tong, and Fu (1997) observed that instead of acting like those holding a fixed mindset who wanted to punish a professor for a seemingly unfair last-minute change in grading policy, students with a growth mindset were more forgiving and inclined to educate the professor about how to do the right thing.

This consultative and non-judgmental approach may help people with a growth mindset to discover the kinds of win–win alternatives (Kray & Haselhuhn, 2007), as well as cultivate the meaning and psychological safety associated with engagement (Kahn, 1990). On the other hand, a fixed mindset tendency to blame others and seek revenge can become markedly self-defeating, as illustrated by a woman who indicated that with regard to her ex-husband: *If I had to choose between me being happy and him being miserable, I would definitely want him to be miserable* (Dweck, 2006, p. 145). Thus, compared with a growth mindset, a fixed mindset is likely to undermine an individual's ability to constructively handle interpersonal challenges that may subsequently affect engagement.

Proposition 5. *A fixed mindset impedes employee engagement by virtue of diminishing positive interactions with others.*

To summarize, holding a growth mindset increases – and a fixed mindset undermines – employees' enthusiasm for development, belief in the utility of effort, attentiveness to new and useful information, and the likelihood of construing “failures” as challenging and energizing opportunities to learn, rather than as threatening judgments of one's abilities. Finally, a growth mindset cues people to approach interpersonal challenges, such as misaligned agendas, priorities, and convictions about appropriate modes of conduct, in the respectful, forgiving, and helpful manner that enables positive and meaningful encounters and connections with other people (Dutton & Heaphy, 2003).

6. Discussion

A growth mindset is surely no panacea for enabling employee engagement. This is because levels of engagement reflect the dynamic interaction between a wide array of contextual demands and resources, individual differences, and personal resources outlined earlier. For instance, when work-role demands are excessive and organizational support is lacking, a growth mindset alone will not necessarily yield high engagement. The mindset with which such demands and (lack of) support are construed, however, may guide employees' thoughts, feelings, and actions in ways that affect their subsequent engagement.

With a fixed mindset, for example, cynicism about the utility of high effort and concerns about what exerting it might signify may cue responding to work-overload with thoughts of doubt about having the stamina to cope – thereby undermining psychological availability – as well as feelings of fear about one's self-image, status, and career consequences of failing to rise to the occasion that are hallmarks of diminished psychological safety. Viewed through the lens of a growth mindset, the demands for extraordinary effort required by work overload are more liable to being seen as a challenge and opportunity to stretch oneself and develop one's abilities (Blackwell et al., 2007).

When managers are seen as not doing what is expected of them, such as being supportive and acting in a procedurally just manner, employees might react with thoughts about how to seek vengeance (Chiu et al., 1997; Yeager et al., 2014), as well as with reduced feelings of commitment and willingness to be helpful by going the extra mile (Heslin & VandeWalle, 2011). With a growth mindset, employees are more likely to strive to educate (Chiu et al., 1997) and help their manager to improve (Heslin et al., 2006), thereby potentially fostering the desired supportiveness and leader–member exchange associated with engagement (Christian et al., 2011).

According to Bandura (1986), useful theories offer not only a coherent *understanding* of some aspect of human functioning, but also pave the way for empirical *prediction* and useful *change*. So far we have explained how and why employees' mindsets about the abilities required by the task(s) they are performing may influence their engagement. Next we consider when a growth mindset

may be less predictive of engagement than a fixed mindset, before suggesting some avenues for future research regarding the role of mindsets in engagement. We conclude by outlining a range of practical implications for organizations, managers, and employees interested in cultivating their engagement with their work.

6.1. When growth mindsets might not foster engagement

Compared to a growth mindset, a fixed mindset cues fairly rapid and rigid conclusions about what one is able to achieve. Plaks and Stecher (2007) theorized that mindsets create expectations about personal performance trajectories and that people may be averse to deviations from these expectations. They conducted a fascinating experiment in which participants were randomly assigned to receive feedback indicating that their performance had either improved, declined, or remained static over time. Plaks and Stecher (2007) observed that people with a fixed mindset took performance decline and improvement worse than did those with a growth mindset, viewing them as unexpected, difficult to account for, and thus more anxiety-provoking than if their performance level had remained static.

Indeed, of the participants assigned to be informed that their performance had not changed, those with a growth mindset experienced more anxiety and displayed weaker subsequent effort and performance than those with a fixed mindset. From the perspective of a growth mindset, a failure to improve despite their effort and opportunity to do so represented a direct refutation of their implicit belief in their capacity to develop. Thus, evidence of being on a developmental trajectory that is inconsistent with one's mindset can produce anxiety and may impede engagement.

An important implication is that in roles where there is limited scope for skill and performance development, such as working on a production line when the quality of one's work is already exemplary and the rate of one's work is limited by the speed of the line, those possessing a fixed mindset are likely to be *more* engaged than those holding a growth mindset. Indeed, with the growing prevalence of underemployment (Erdogan & Bauer, 2009) – when the qualifications and skills required by the role are less than the job incumbent possesses – a fixed mindset may facilitate engagement by helping individuals avert the potential frustrations associated with not exercising and increasing their performance capabilities. However, under the more common, less structurally-constrained circumstances where there is scope for skill and performance development, those with a growth mindset are less likely to be encumbered by the defensive inclinations and anxieties that can undermine their engagement.

6.2. Research implications

In striving to supplement the substantial literature on contextual, individual difference, and personal resource antecedents of engagement, we have theorized about the potential role of mindsets. The relationships between mindsets and the proposed mechanisms of enthusiasm for development, construal of effort, focus of attention, perception of setbacks, and interpersonal interactions are empirically well-established, though mostly by laboratory studies with children and college students. Although there is evidence that mindset dynamics generalize to the workplace (e.g., Heslin et al., 2005; Heslin et al., 2006), field research directly examining the relationship between mindsets and employee engagement, as mediated by mechanisms such as those depicted in Fig. 1, is now needed. Such research might usefully deploy the growth mindset intervention protocol outlined in Table 1 which has been found to persuade those with a fixed mindset to adopt a growth mindset that lasts for at least six weeks (Heslin et al., 2005).

In light of Gallup's (2013) survey, which reports that a substantial percentage of employees are disengaged at work, longitudinal field research is also needed to empirically examine our propositions in order to pave the way for more definitive conclusions about the relationship between mindsets and engagement. In particular, studies that systematically and perhaps repeatedly deploy growth mindset development strategies based on the principles outlined in Table 1 may, over time, eventually instill in employees a relatively chronic growth mindset that has important implications for sustaining their engagement with their work.

Beyond research that investigates general tendencies that affect engagement at work, this paper provides a theoretical foundation for examining within-person variation in employee engagement. Specifically, by measuring fluctuations in mindset throughout the working day, within-person research could provide a more nuanced understanding of the psychological processes underlying engagement. Designs that model this dynamic process might also conceivably reveal empirical results that vary across levels of analysis. That is, the form of the relationship between mindsets and engagement may differ across the within- and between-person levels. Despite conceptualizations of mindset as both enduring (Robins & Pals, 2002) and transitory (Dweck, 1999, 2006; Dweck et al., 1995), mindset research largely reflects a between-person perspective. Thus, research on the relationship between mindsets and engagement at the within-person level, which might utilize experience sampling methodologies or diary surveys to assess mindsets, state engagement, and the mediators we have suggested, has the potential to make a substantial contribution to the mindsets and engagement literatures.

Field research might also productively assess how mindsets interact with other personal resource antecedents of engagement. For instance, a laboratory study by Wood and Bandura (1989) observed that a growth mindset protects self-efficacy from being diminished by setbacks, relative to when people hold an induced fixed mindset. Given the important role of self-efficacy in engagement (Xanthopoulou et al., 2009), research might usefully investigate if cultivating growth mindsets facilitates sustained engagement when setbacks are experienced, by enabling people to maintain relatively high levels of self-efficacy for the task at hand. This research might usefully examine whether induced growth mindsets also support the other personal resources (i.e., optimism and organization-based self-esteem) and somewhat malleable dispositions (i.e., psychological capital and core self-evaluations) that are associated with engagement.

Schaufeli, Bakker, and Van Rhenen (2009) observed that engagement is increased by managers who enact considerate behaviors such as coaching employees and providing them feedback and support. Given that having a growth mindset prompts managers to help their employees (Heslin et al., 2006) and treat them fairly (Heslin & VandeWalle, 2011), research is warranted on whether employees' engagement may be increased by training managers to adopt and sustain a growth mindset towards their employees. This research may also investigate whether the helpfulness of managers towards employees, as a function of a growth mindset, manifests in the opposite direction; specifically, if holding a growth mindset prompts employees to be helpful to their manager, thereby leading managers to respond by providing the social support that fuels employees' engagement.

A meta-analysis by Crawford, LePine, and Rich (2010) reported that job demands that are typically appraised as hindrances (i.e., stressful demands that can thwart personal growth, learning, and goal attainment such as role conflict, role ambiguity, and role overload) are consistently negatively related to engagement, whereas job demands that are typically appraised as challenges (i.e., stressful demands that can promote mastery, personal growth, or future plans such as high workload, time pressure, and high levels of job responsibility) are positively related to engagement. Research might fruitfully explore whether induced growth mindsets can increase engagement via increasing employees' perceived levels of job resources and positive framing of demands as challenges. Such research might examine, for instance, whether induced growth mindsets increase perceptions of job control and resultant engagement via increasing employees' proactivity to learn (Hong et al., 1999), as well as propensity to set learning goals (Blackwell et al., 2007), and experiment with different strategies for performing complex tasks (Wood & Bandura, 1989).

6.3. Practical implications for cultivating engagement

Given that fixed mindsets are potentially toxic to engagement, what can be done to foster growth mindsets? Potential sources of fixed and growth mindsets are the organizational culture in which employees work, as well as managerial actions and self-development initiatives that employees deploy.

6.3.1. Organizational culture

Murphy and Dweck (2010) proposed that cultures of genius are characterized by shared assumptions and cultural artifacts such as newsletters, speeches by top management, selection and promotion criteria, and award ceremonies that convey the fixed mindset notion that some people are inherently gifted, while most are not. A common example is organizations, such as Sabre Holdings, proudly proclaiming that they recruit and retain only the brightest minds. Enron was similarly renowned for idolizing those few *smartest guys in the room* deemed to have the inherent brilliance – that most other Enron employees supposedly lacked – for engineering extremely profitable business deals (McLean & Elkind, 2003). Such a culture of genius was fueled by Enron's performance review committee that methodically identified and summarily fired employees whose performance was ranked as the bottom 10–15%, thereby propagating the fixed mindset doubts about whether some people's abilities can be developed.

Cultures of growth, on the other hand, are marked by shared beliefs and artifacts (e.g., various training and development initiatives) signaling that peoples' abilities are malleable and expandable (Murphy & Dweck, 2010). Southwest Airlines, for instance, is renowned for its culture of continually cultivating employees' abilities through considerable investments in its employees. SAS similarly emphasizes that: "SAS employees enjoy a supportive environment, outstanding opportunities for professional growth, and a chance to help SAS drive the new economy" (SAS Careers: Great software. Great people, 2014).

There are a range of initiatives that human resource managers might take to evolve a culture of genius towards a culture of growth. First, they could provide managers and employees with the type of growth mindset cultivation intervention outlined in Table 1. Second, they could train managers to adopt a strategic approach to selection and promotion decisions. Doing so involves questioning the culture of genius tendency to target only the most proven candidates by instead giving serious consideration to those candidates whose performance capability might be most developed by assuming a challenging new role for which they do *not yet* have all the required competencies.

Leaders may send compelling signals that employee growth is possible and valued by publically celebrating instances of substantial skill acquisition or improvement by employees from across all levels of the organization. Other potential levers for fostering a culture of growth are investing in developmental HRM practices likely to underscore employees' growth potential, such as comprehensive socialization, peer-mentoring, multisource feedback, performance coaching, sponsored continuing education, study leave, job shadowing, and job rotation programs.

6.3.2. Managerial actions

Managers can powerfully shape the thoughts, feelings, and actions of their employees (McNatt, 2000). As noted earlier, applauding good performance as a reflection of how smart or gifted someone is, rather than how hard and diligently she or he has worked, engenders a fixed mindset (Mueller & Dweck, 1998). On the other hand, leaders making attributions to the processes that enable learning and performance improvement (e.g., working hard, seeking feedback, working systemically) could create growth mindsets (Mueller & Dweck, 1998). While this seminal finding is yet to be replicated within the workplace, it highlights the potential peril to employees' growth mindsets of well-intentioned managers labeling their subordinates using ostensibly supportive trait terms such as *star performer*, *gifted*, or *superstar* (cf. Michaels, Handfield-Jones, & Axelrod, 2001). Such labels may inadvertently cause top performers to adopt a fixed mindset, become risk averse, and thus disengage from high risk challenges, rather than jeopardize a treasured self-impression and reputation for being a star performer.

Ways that managers can praise employees, without inadvertently cuing fixed mindsets, focus on the *process* employees undertook to attain positive outcomes (e.g., a successful product launch or negotiation outcome), as opposed to their *innate talent* that

Table 1

Growth mindset development procedure (adapted and updated from Heslin et al., 2005).

1. *Highlight the brain's growth potential.* Share with employees that neuropsychological research is revealing that whenever we focus our minds and learn something, new connections are established in our brains. Thus, the brain and its abilities are capable of *growing like a muscle* throughout life, whenever they are exercised properly. This message can be usefully supplemented with anecdotes of how familiar people – ultimately including yourself – have substantially developed certain abilities, sometimes beginning later in life. To supplement your personal anecdotes, many compelling illustrations of how great performance capabilities result more from years of persistent deliberative practice than from innate talent are provided by Gladwell (2002), Colvin (2008), and Dweck (2006).
2. *Elicit counter-attitudinal reflection.* Have employees identify an area (e.g., using a complex web-based application, playing golf, speaking a second language) where they had initially struggled but now perform well and with relative ease. Encourage them to reflect upon and explicitly explain in detail the steps they took along their developmental path (e.g., setting goals, taking risks, getting lessons, practicing hard, being coached, seeking feedback, watching a video of one's performance). Then ask the employees to ponder why similar initiatives might not work just as well in an area where they doubt whether they have any ability to develop.
3. *Elicit counter-attitudinal advocacy.* Have employees identify someone they care about (e.g., a parent, child, or protégé) who is struggling to believe that his or her ability can be cultivated. Have them write an encouraging 2–3 page message to this person in which they outline, in their own words, the reasons and evidence that abilities can be developed, including meaningful personal anecdotes such as those generated during the prior counter-attitudinal reflection exercise.
4. *Induce cognitive dissonance.* Have employees identify an instance when they observed somebody learn to do something that they earnestly thought this person could *never* do. Then invite them to ponder what could have been the implications of them doubting this person's capabilities. Leading people to reflect upon the potentially huge cost of a fixed mindset – in terms of constraining other people and themselves from realizing their potential – is a compelling way to foster a growth mindset.
5. *Role play replacing fixed with growth mindsets.* Have employees identify a specific incident when responding to a significant challenge with a fixed mindset did not serve them well. Then have them record the kinds of fixed mindset self-talk that undermined their ability to be at their best in this situation, before recording more enabling, growth-oriented alternative self-talk they could have used instead. Peer coaching followed by role playing these scenarios can yield powerful insights about the scope for liberating oneself from an oppressive tendency to respond to setbacks with a fixed mindset.

presumably enabled them to achieve it. Examples include underscoring to employees what they achieved as a result of setting challenging goals, questioning their assumptions, working hard, collaborating with those with different perspectives, persisting in the face of setbacks, and/or systematically striving to identify ways to improve, adapt to change, and attain outstanding performance. As long as such feedback is credible, this approach to describing what employees have *done* to perform well – rather than who or what they supposedly *are* – has potential to cue growth mindsets and subsequent employee engagement.

Just as managers cannot lead others any more effectively than they can lead themselves (Bennis, 2009), they are also unlikely to cultivate growth mindsets within their employees when they are personally prone to responding to significant challenges and setbacks with a fixed mindset. Initiatives derived from relevant research (Aronson et al., 2002; Heslin et al., 2005; cf. Dweck, 2006) that managers can adopt to approach their challenges with a growth mindset are outlined in Table 2.

6.3.3. Self-development initiatives

People think, feel, act, and interact like someone with a growth mindset when they construe challenging situations as opportunities for learning, growth, and attainment, rather than as encounters in which their (lack of) inherent abilities will be diagnosed and judged. In order to make a growth mindset more salient within themselves, employees are encouraged to work through the exercises outlined in Table 2. When doing so, engaging in peer support, public commitments, and social learning (i.e., hearing others' stories) can help to mold personal convictions (Aronson, 1999). Individuals are thus encouraged to work in pairs or small groups to identify domains in which they hold a fixed mindset and ways they could apply the kinds of strategies outlined in Table 2 to adopt a growth mindset with regard to their work in those domains.

Table 2

Initiatives for creating and sustaining a growth mindset.

1. Think of challenging tasks as an exciting opportunity to learn what works and does not work well, rather than as a barometer of whether you have natural ability or are gifted in a particular area.
2. Think of your successes and failures as reflecting the quality of your effort, strategies and choices, rather than as indicators of your (lack of) innate talent.
3. Ponder the process whereby you cultivated your abilities to read, write, and do math etc. Remember that few worthwhile capabilities are acquired without persistent effort and plenty of frustrating setbacks along the way.
4. Recall when you felt humiliated by a performance setback. Consider what you can learn from it and how such events rarely define one's ultimate performance capabilities. There are few definitive tests of capabilities and, with focused practice, learning and growth are virtually always possible. Thinking of yourself as an eager student with a *beginner's mind* can enhance your engagement and enjoyment of challenges, especially when you sense you are struggling or failing.
5. Believing and proclaiming that you would like to change in a certain area, but that's *just the way I am*, may reinforce the fixed mindset perspective that your behavior is essentially a function of fixed traits. Instead, explicitly and consistently recognizing your scope for choice and personal change can foster the growth mindset that facilitates engagement.
6. Investigate the background of someone whose talent you truly admire. Does your research suggest that their talent was merely innate, or did they also develop it through tremendous, sustained effort?
7. Think of something you have always wanted to learn to do, but never believed you had it in you. Now *execute* a concrete plan to learn how to do it.
8. Ponder and relish the process of developing your skills, including when you inevitably make mistakes along the way. Be proud of learning from your mistakes, rather than falling into the fixed mindset trap of feeling judged by them.
9. Strive to value and feel genuinely proud of your learning and growth, as well as your performance attainments.
10. Resist the temptation to surround yourself with people focused on validating your brilliance, rather than also challenging you to grow.

A well-established maxim within the persuasion literature is that vivid and extensive exposure to certain ideas – particularly when those ideas are self-generated (Aronson, 1999) – increases their accessibility and thus influence on people's subsequent thoughts, feelings, and behavior (Crano & Prislín, 2006). Individuals eager to develop and maintain a growth mindset are thus encouraged to draw upon Tables 1 and 2 to create and routinely apply a personal growth mindset development plan. Whenever fixed mindset doubts arise about their ability to conquer a particular challenge (e.g., thinking *I'm too old for this...*), they may fruitfully reflect upon which facet of *their* growth mindset development plan might most help them stay engaged with identifying how to forge ahead in learning how to attain their objectives.

References

- Alfes, K., Truss, C., Soane, E.C., Rees, C., & Gatenby, M. (2013). The relationship between line manager behavior, perceived HRM practices, and individual performance: Examining the mediating role of engagement. *Human Resource Management*, 52, 839–859. <http://dx.doi.org/10.1002/hrm.21512>.
- Aronson, E. (1999). The power of self-persuasion. *American Psychologist*, 54, 873–890. <http://dx.doi.org/10.1037/h0088188>.
- Aronson, J., Fried, C.B., & Good, C. (2002). Reducing the effects of stereotype threat on African American students by shaping theories of intelligence. *Journal of Experimental Social Psychology*, 38, 113–125. <http://dx.doi.org/10.1006/jesp.2001.1491>.
- Avey, J.B., Wernsing, T.S., & Luthans, F. (2008). Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviors. *The Journal of Applied Behavioral Science*, 44, 48–70. <http://dx.doi.org/10.1177/0021886307311470>.
- Bakker, A.B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22, 309–328. <http://dx.doi.org/10.1108/02683940710733115>.
- Bakker, A.B., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model to predict burnout and performance. *Human Resource Management*, 43, 83–104. <http://dx.doi.org/10.1002/hrm>.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Beer, J. (2002). Implicit self-theories of shyness. *Journal of Personality and Social Psychology*, 83, 1009–1024. <http://dx.doi.org/10.1037/0022-3514.83.4.1009>.
- Bell, B.S., & Kozlowski, W.J. (2002). Goal orientation and ability: interactive effects on self-efficacy, performance, and knowledge. *Journal of Applied Psychology*, 87, 497–505. <http://dx.doi.org/10.1037/0021-9010.87.3.497>.
- Bennis, W. (2009). *On becoming a leader*. revised ed. Cambridge, MA: Perseus.
- Blackwell, L., Trzesniewski, K., & Dweck, C. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*, 78, 246–263. <http://dx.doi.org/10.1111/j.1467-8624.2007.00995.x>.
- Boon, C., & Kalshoven, K. (2014). How high-commitment HRM relates to engagement and commitment: The moderating role of task proficiency. *Human Resource Management*, 53, 403–420. <http://dx.doi.org/10.1002/hrm.21569>.
- Burnette, J.L., O'Boyle, E.H., VanEpps, E.M., Pollack, J.M., & Finkel, E.J. (2013). Mind-sets matter: A meta-analytic review of implicit theories and self-regulation. *Psychological Bulletin*, 139, 655–701. <http://dx.doi.org/10.1037/a0029531>.
- Button, S.B., Mathieu, J.E., & Zajac, D.M. (1996). Goal orientation in organizational research: A conceptual and empirical foundation. *Organizational Behavior and Human Decision Processes*, 67, 26–48. <http://dx.doi.org/10.1006/obhd.1996.0063>.
- Cascio, W.F. (2008). To prosper, organizational psychology should... bridge application and scholarship. *Journal of Organizational Behavior*, 29, 455–468. <http://dx.doi.org/10.1002/job.528>.
- Chiu, C., Dweck, C.S., Tong, J.Y., & Fu, J.H. (1997). Implicit theories and conceptions of morality. *Journal of Personality and Social Psychology*, 73, 923–940. <http://dx.doi.org/10.1037/0022-3514.73.5.923>.
- Christian, M.S., Garza, A.S., & Slaughter, J.E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64, 89–136. <http://dx.doi.org/10.1111/j.1744-6570.2010.01203.x>.
- Chughtai, A.A., & Buckley, F. (2011). Work engagement: Antecedents, the mediating role of learning goal orientation and job performance. *Career Development International*, 16, 684–705. <http://dx.doi.org/10.1108/13620431111187290>.
- Cimpian, A., Arce, H.M.C., Markman, E.M., & Dweck, C.S. (2007). Subtle linguistic cues affect children's motivation. *Psychological Science*, 18, 314–316. <http://dx.doi.org/10.1111/j.1467-9280.2007.01896.x>.
- Colvin, G. (2008). *Talent is overrated: What really separates world-class performers from everybody else*. New York, NY: Penguin.
- Crano, W., & Prislín, R. (2006). *Attitudes and persuasion*. Annual Review of Psychology, Vol. 57. (pp. 345–374). Palo Alto, CA: Annual Reviews, 345–374.
- Crawford, E.R., LePine, J.A., & Rich, B.L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95, 834–848. <http://dx.doi.org/10.1037/a0019364>.
- Dalal, R.S., Brummel, B.J., Wee, S.E.R.E.N.A., & Thomas, L.L. (2008). Defining employee engagement for productive research and practice. *Industrial and Organizational Psychology*, 1, 52–55. <http://dx.doi.org/10.1111/j.1754-9434.2007.00008.x>.
- DeShon, R.P., & Gillespie, J.Z. (2005). A motivated action theory account of goal orientation. *Journal of Applied Psychology*, 90, 1096–1127. <http://dx.doi.org/10.1037/0021-9010.90.6.1096>.
- Dutton, J.E., & Heaphy, E.D. (2003). The power of high-quality connections at work. In K.S. Cameron, J.E. Dutton, & R.E. Quinn (Eds.), *Positive organizational scholarship* (pp. 263–278). San Francisco: Berrett-Koehler Publishers.
- Dweck, C.S. (1986). Motivational processes affect learning. *American Psychologist*, 41, 1040–1048. <http://dx.doi.org/10.1037/0003-066X.41.10.1040>.
- Dweck, C.S. (1999). *Self-theories: Their role in motivation, personality, and development*. Philadelphia: Psychology Press.
- Dweck, C.S. (2006). *Mindsets*. New York: Random House.
- Dweck, C.S., Chiu, C., & Hong, Y.Y. (1995). Implicit theories and their role in judgments and reactions: A world from two perspectives. *Psychological Inquiry*, 6, 267–285. http://dx.doi.org/10.1207/s15327965pli0604_1.
- Dweck, C.S., & Leggett, E.L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95, 256–273. <http://dx.doi.org/10.1037/0033-295X.95.2.256>.
- Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44, 350–383. <http://dx.doi.org/10.2307/2666999>.
- Erdley, C.A., & Dweck, C.S. (1993). Children's implicit personality theories as predictors of their social judgments. *Child Development*, 64, 863–878. <http://dx.doi.org/10.1111/j.1467-8624.1993.tb02948.x>.
- Erdogan, B., & Bauer, T.N. (2009). Perceived overqualification and its outcomes: The moderating role of empowerment. *Journal of Applied Psychology*, 94, 557–565. <http://dx.doi.org/10.1037/a0013528>.
- Franken, R.E., & Brown, D.J. (1995). Why do people like competition? The motivation for winning, putting forth effort, improving one's performance, performing well, being instrumental, and expressing forceful/aggressive behavior. *Personality & Individual Differences*, 19, 175–184. [http://dx.doi.org/10.1016/0191-8869\(95\)00035-5](http://dx.doi.org/10.1016/0191-8869(95)00035-5).
- Gallup (2013). State of the American workplace: Employee engagement insights for U.S. business leaders. Retrieved from <http://www.gallup.com/strategicconsulting/163007/state-american-workplace.aspx>.
- Gladwell, M. (2002, July 22). *The talent myth: Are smart people overrated?* The New Yorker.
- Grant, A.M. (2007). Relational job design and the motivation to make a prosocial difference. *Academy of Management Review*, 32, 393–417. <http://dx.doi.org/10.5465/AMR.2007.24351328>.
- Grant, H., & Dweck, C.S. (2003). Clarifying achievement goals and their impact. *Journal of Personality and Social Psychology*, 85, 541–553. <http://dx.doi.org/10.1037/0022-3514.85.3.541>.

- Griffin, M.A., Parker, S.K., & Neal, A. (2008). Is behavioral engagement a distinct and useful construct? *Industrial and organizational psychology: Perspectives on science and practice*, 1, 48–51. <http://dx.doi.org/10.1111/j.1754-9434.2007.00007.x>.
- Harackiewicz, J.M., Barron, K.E., Tauer, J.M., & Elliot, A.J. (2002). Predicting success in college: A longitudinal study of achievement goals and ability measures as predictors of interest and performance from freshman year through graduation. *Journal of Educational Psychology*, 94, 562–575. <http://dx.doi.org/10.1037/0022-0663.94.3.562>.
- Harter, J.K., & Schmidt, F.L. (2008). Conceptual versus empirical distinctions among constructs: Implications for discriminant validity. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 1, 36–39. <http://dx.doi.org/10.1111/j.1754-9434.2007.00004.x>.
- Harter, J., Schmidt, F.L., & Hayes, T. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87, 268–279. <http://dx.doi.org/10.1037/0021-9010.87.2.268>.
- Hertenstein, E.J. (2001). Goal orientation and practice condition as predictors of training results. *Human Resource Development Quarterly*, 12, 403–419. <http://dx.doi.org/10.1002/hrdq.1005>.
- Heslin, P.A., Latham, G.P., & VandeWalle, D. (2005). The effect of implicit person theory on performance appraisals. *Journal of Applied Psychology*, 90, 842–856. <http://dx.doi.org/10.1037/0021-9010.90.5.842>.
- Heslin, P.A., & VandeWalle, D. (2005, April). *Self-regulation derailed: Implicit person theories and feedback-seeking*. Paper presented at the annual meeting of the Society for Los Angeles, CA: Industrial/Organizational Psychology.
- Heslin, P.A., & VandeWalle, D. (2011). Performance appraisal procedural justice: The role of manager's implicit person theory. *Journal of Management*, 37, 1694–1718. <http://dx.doi.org/10.1177/0149206309342895>.
- Heslin, P.A., VandeWalle, D., & Latham, G.P. (2006). Keen to help? Managers' IPTs and their subsequent employee coaching. *Personnel Psychology*, 59, 871–902. <http://dx.doi.org/10.1111/j.1744-6570.2006.00057.x>.
- Hobfoll, S.E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513–524. <http://dx.doi.org/10.1037/0003-066X.44.3.513>.
- Hobfoll, S.E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6, 307–324. <http://dx.doi.org/10.1037/1089-2680.6.4.307>.
- Hong, Y.Y., Chiu, C.Y., Dweck, C.S., Lin, D.M.S., & Wan, W. (1999). Implicit theories, attributions, and coping: A meaning system approach. *Journal of Personality and Social Psychology*, 77, 588–599. <http://dx.doi.org/10.1037/0022-3514.77.3.588>.
- Janssen, O., & Van Yperen, N.W. (2004). Employees' goal orientations, the quality of leader-member exchange, and the outcomes of job performance and job satisfaction. *Academy of Management Journal*, 47, 368–384. <http://dx.doi.org/10.2307/20159587>.
- Jiang, K., Hong, Y., McKay, P.F., Avery, D.R., Wilson, D.C., & Volpone, S.D. (2015). Retaining employees through anti-sexual harassment practices: Exploring the mediating role of psychological distress and employee engagement. *Human Resource Management*, 54(1), 1–21.
- Kahn, W.A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692–724. <http://dx.doi.org/10.2307/256287>.
- Karabeniak, S.A., & Collins-Eaglin, J. (1997). Relation of perceived instructional goals and incentives to college students' use of learning strategies. *Journal of Experimental Education*, 65, 331–341. <http://dx.doi.org/10.1080/00220973.1997.10806608>.
- Knee, C.R., Patrick, H., & Lonsbary, C. (2003). Implicit theories of relationships: Orientations toward evaluation and cultivation. *Personality and Social Psychology Review*, 7, 41–55. http://dx.doi.org/10.1207/S15327957PSPR0701_3.
- Kray, L., & Haselhuhn, M. (2007). Implicit negotiation beliefs and performance: Experimental and longitudinal evidence. *Journal of Personality and Social Psychology*, 93, 49–64. <http://dx.doi.org/10.1037/0022-3514.93.1.49>.
- Latham, G.P. (2012). *Work motivation: History, theory, research, and practice* (2nd Edition). Thousand Oaks, CA: Sage.
- Lee, F.K., Sheldon, K.M., & Turban, D.B. (2003). Personality and the goal-striving process: The influence of achievement goal patterns, goal level, and mental focus on performance and enjoyment. *Journal of Applied Psychology*, 88, 256–265. <http://dx.doi.org/10.1037/0021-9010.88.2.256>.
- Levy, S.R., Stroessner, S.J., & Dweck, C.S. (1998). Stereotype formation and endorsement: The role of implicit theories. *Journal of Personality and Social Psychology*, 74, 1421–1436. <http://dx.doi.org/10.1037/0022-3514.74.6.1421>.
- Macey, W.H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 1, 3–30. <http://dx.doi.org/10.1111/j.1754-9434.2007.0002.x>.
- Mangels, J.A., Butterfield, B., Lamb, J., Good, C., & Dweck, C.S. (2006). Why do beliefs about intelligence influence learning success? A social cognitive neuroscience model. *Social Cognitive and Affective Neuroscience*, 1, 75–86. <http://dx.doi.org/10.1093/scan/nsl013>.
- Mangos, P.M., & Steele-Johnson, D. (2001). The role of subjective task complexity in goal orientation, self-efficacy, and performance relations. *Human Performance*, 14, 169–185. http://dx.doi.org/10.1207/S15327043HUP1402_03.
- May, D., Gilson, R., & Harter, L. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, 77, 11–37. <http://dx.doi.org/10.1348/096317904322915892>.
- McLean, B., & Elkind, P. (2003). *The smartest guys in the room*. New York, NY: Penguin Group.
- McNatt, D. (2000). Ancient Pygmalion joins contemporary management: A meta-analysis of the result. *Journal of Applied Psychology*, 85, 314–322. <http://dx.doi.org/10.1037/0021-9010.85.2.314>.
- Michaels, E., Handfield-Jones, H., & Axelrod, B. (2001). *The war for talent*. Boston, MA: Harvard Business School Press.
- Mueller, C., & Dweck, C. (1998). Praise for intelligence can undermine children's motivation and performance. *Journal of Personality & Social Psychology*, 75, 33–53. <http://dx.doi.org/10.1037/0022-3514.75.1.33>.
- Murphy, M.C., & Dweck, C.S. (2010). A culture of genius: How environments lay theories shape people's cognition, affect and behavior. *Personality and Social Psychology Bulletin*, 36, 283–296. <http://dx.doi.org/10.1177/0146167209347380>.
- National Transportation Safety Board (2007). Attempted takeoff from wrong runway, Comair Flight 5191, Bombardier CL-600-2B19, N431CA, Lexington, Kentucky, August 27, 2006. *Aircraft Accident Report NTSB/AAR-07/05*. Washington, DC: National Transportation Safety Board.
- Nussbaum, A.D., & Dweck, C.S. (2008). Defensiveness versus remediation: Self-theories and modes of self-esteem maintenance. *Personality and Social Psychology Bulletin*, 34, 599–612. <http://dx.doi.org/10.1177/0146167207312960>.
- Payne, S.C., Youngcourt, S.S., & Beaubien, J.M. (2007). A meta-analytic examination of the goal orientation nomological net. *Journal of Applied Psychology*, 92, 128–150. <http://dx.doi.org/10.1037/0021-9010.92.1.128>.
- Plaks, J., Dweck, C., Stroessner, S., & Sherman, J. (2001). Person theories and attention allocation: Preferences for stereotypic versus counterstereotypic information. *Journal of Personality and Social Psychology*, 80, 876–893. <http://dx.doi.org/10.1037/0022-3514.80.6.876>.
- Plaks, J., & Stecher, K. (2007). Unexpected improvement, decline, and stasis: A prediction confidence perspective on achievement success and failure. *Journal of Personality and Social Psychology*, 93, 667–684. <http://dx.doi.org/10.1037/0022-3514.93.4.667>.
- Rich, B.L., Lepine, J.A., & Crawford, E.R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53, 617–635. <http://dx.doi.org/10.5465/AMJ.2010.51468988>.
- Robins, R., & Pals, J. (2002). Implicit self-theories in the academic domain: Implications for goal orientation, attributions, affect, and self-esteem change. *Self and Identity*, 1, 313–336. <http://dx.doi.org/10.1080/15298860290106805>.
- Rynes, S., Giluk, T., & Brown, K. (2007). The very separate worlds of academic and practitioner periodicals in human resource management: Implications for evidence-based management. *Academy of Management Journal*, 50, 987–1008. <http://dx.doi.org/10.5465/AMJ.2007.27151939>.
- Saks, A.M. (2008). The meaning and bleeding of employee engagement: How muddy is the water? *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 1, 40–43. <http://dx.doi.org/10.1111/j.1754-9434.2007.00005.x>.
- Saks, A.M., & Gruman, J.A. (2014). What do we really know about employee engagement? *Human Resource Development Quarterly*, 25, 155–182. <http://dx.doi.org/10.1002/hrdq.21187>.
- Salanova, M., Agut, S., & Peiró, J.M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: The mediation of service climate. *Journal of Applied Psychology*, 90, 1217–1227. <http://dx.doi.org/10.1037/0021-9010.90.6.1217>.
- Salanova, M., & Schaufeli, W. (2008). A cross-national study of work engagement as a mediator between job resources and proactive behaviour. *International Journal of Human Resource Management*, 19, 116–131. <http://dx.doi.org/10.1080/09585190701763982>.

- SAS Careers: Great software. Great people (2014). Retrieved from www.sas.com/offices/asiapacific/sp/jobs/.
- Schaufeli, W.B., Bakker, A.B., & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organizational Behavior*, 30, 893–917. <http://dx.doi.org/10.1002/job.595>.
- Schaufeli, W.B., Salanova, M., González-Romá, V., & Bakker, A.B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71–92. <http://dx.doi.org/10.1023/A:1015630930326>.
- Seligman, M.E.P. (1998). *Learned optimism*. New York: A.A. Knopf.
- Snyder, C.R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry*, 13, 249–275. http://dx.doi.org/10.1207/S15327965PLI1304_01.
- Soane, E., Shantz, A., Alfes, K., Truss, C., Rees, C., & Gatenby, M. (2013). The association of meaningfulness, well-being, and engagement with absenteeism: A moderated mediation model. *Human Resource Management*, 52, 441–456. <http://dx.doi.org/10.1002/hrm.21534>.
- Sonnentag, S., Mojza, E.J., Demerouti, E., & Bakker, A.B. (2012). Reciprocal relations between recovery and work engagement: The moderating role of job stressors. *Journal of Applied Psychology*, 97, 842–852. <http://dx.doi.org/10.1037/a0028292>.
- Spinath, B., Spinath, F.M., Riemann, R., & Angleitner, A. (2003). Implicit theories about personality and intelligence and their relationship to actual personality and intelligence. *Personality and Individual Differences*, 35, 939–951. [http://dx.doi.org/10.1016/S0191-8869\(02\)00310-0](http://dx.doi.org/10.1016/S0191-8869(02)00310-0).
- Strage, A. (1997). Agency, communion, and achievement motivation. *Adolescence*, 32, 299–312 (Retrieved from <http://search.proquest.com/docview/195932686/fulltextPDF/B35C5D6DCD0E4C13PQ/1?accountid=12763>).
- VandeWalle, D. (1997). Development and validation of a work domain goal orientation instrument. *Educational and Psychological Measurement*, 57, 995–1015. <http://dx.doi.org/10.1177/0013164497057006009>.
- Welch, J., & Welch, S. (2006, May 8). *Ideas the Welch way: How healthy is your company?* BusinessWeek, 126.
- Wood, R.E., & Bandura, A. (1989). Impact of conceptions of ability on self-regulatory mechanisms and complex decision making. *Journal of Personality and Social Psychology*, 56, 407–415. <http://dx.doi.org/10.1037/0022-3514.56.3.407>.
- Xanthopoulou, D., Bakker, A.B., Demerouti, E., & Schaufeli, W.B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14, 121–141. <http://dx.doi.org/10.1037/1072-5245.14.2.121>.
- Xanthopoulou, D., Bakker, A.B., Demerouti, E., & Schaufeli, W.B. (2009). Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of Occupational and Organizational Psychology*, 82, 183–200. <http://dx.doi.org/10.1348/096317908X285633>.
- Yeager, D.S., & Dweck, C.S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist*, 47, 302–314. <http://dx.doi.org/10.1080/00461520.2012.722805>.
- Yeager, D.S., Johnson, R., Spitzer, B.J., Trzesniewski, K.H., Powers, J., & Dweck, C.S. (2014). The far-reaching effects of believing people can change: Implicit theories of personality shape stress, health, and achievement during adolescence. *Journal of Personality and Social Psychology*, 106, 867–884. <http://dx.doi.org/10.1037/a0036335>.
- Zenger, J. (2013, November 14). Why Gallup's 70% disengagement data is wrong. Retrieved from <http://www.forbes.com/sites/jackzenger/2013/11/14/why-gallups-70-disengagement-data-is-wrong/>.