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Mindsets for Change Leaders: Exploring Priming Approaches for Leadership Development

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ABSTRACT

Diagnostic and dialogic organization development present two contrasting change practices that are frequently discussed in tandem. Yet, an increasing body of evidence shows they are co-applied in practice. For those involved in leadership of these practices, co-application means switching their engagement, such as commencing with a diagnostic analysis to determine the goals of change, then switching to dialogic processes to foster the emergence of new ways of working. However, theoretical descriptions of these two practices remain bifurcated and, as such, overlook leadership development approaches that help leaders switch between engagement styles. Addressing this problem, this paper explores a leadership development approach that focusses on mindsets. We propose six mindsets from psychology settings that are relevant for leadership of diagnostic and dialogic practices. A key contribution of this work is a new perspective on leadership development. Extending psychology-derived knowledge on how to activate mindsets provides leaders of change practices with a means to increase awareness of, and take control of, their mindset, helping them to adjust their engagement as change contexts dictate.

MAD statement

This paper seeks to Make a Difference (MAD) by offering a practical means to develop change leaders. Far too often, change practice literature has studied successful leaders with the aim to identify *what they do*, while at the same time overlooking the mechanics that develop these same actions and behaviours. The paper addresses this oversight with a focus on mindsets. It puts forward a means for leaders to increase awareness of, and take control of, their activated mindset and, in doing so, align *what they do* to change leadership contexts.

KEYWORDS

Organization development; change leadership; mindsets; leadership development

Decades of research confirm that effective leadership is essential for successful change outcomes (see Ford & Ford, 2012; Oreg & Berson, 2019). We assume leadership to be an engagement process of directing, aligning and committing those involved in change towards the realization of desired objectives (Drath et al., 2008). As theories of change have evolved, so has an understanding of the leadership engagement processes

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that facilitate it. In this way, a contribution to the field of organization development by Bushe and Marshak (2009, 2015) delineated two practice-based practices. One is diagnostic organization development (diagnostic), describing processes of diagnosis of problems and the setting in place of plans – an approach often used where outcomes are known, such as updating an information technology system. In contrast, dialogic organizational development (dialogic) describes conversational-based processes that foster the coming together of ideas and the emergence of new possibilities – a practice used when outcomes are unknown, for instance in response to a crisis (e.g. Voorhees, 2008). While change is often perceived, and described, as *either* one practice or the other, evidence points to successful change resulting from cycling back and forth *between* practices as change unfolds (see Burnes, 2004; Graebner, 2004; Hastings & Schwarz, 2021). With this combined practice a problem presents, this same research lacks a clear pathway to develop leadership to match their engagement to the chosen practice. As such, in this paper we consider, *how to switch leadership engagement between diagnostic and dialogic practices?*

Scholars have illustrated leadership engagement of diagnostic and dialogic practices as requiring allied mindsets, described as how leaders see and engage with change practices (see Bushe & Marshak, 2015; Marshak, 1993; Weick & Quinn, 1999). Such research confirms that diagnostic practices require a mindset allied with 'knowing' (i.e. engagement as problem analysis, setting goals and planning for goal-attainment), whereas a dialogic mindset is allied with 'learning' (i.e. engagement as discovery of new possibilities, learning what works and motivating others with purpose) (Chia, 2017; Weick, 2000; Wheatley, 1992). However, while aligning leadership engagement with the practice of change is essential for change to succeed (see Anderson & Anderson, 2010; Bowen & Inkpen, 2009; Kotter, 2012), a key assumption of change practice discussion is that by explaining target mindsets leaders will be able to adopt them. Wider leadership discussion provides a key challenge to this assumption. While mindsets are a crucial determinant of leadership behaviours (Gottfredson & Reina, 2020; Heslin & Keating, 2017), they are also a dynamic phenomenon, whereby leaders are not always in control of the mindset they exhibit.

Separately, psychologists explain mindsets as representing mental frameworks that guide how people frame, approach, and react to challenges and change (see Dweck, 1986, 2000; Gollwitzer, 2012). Examples include the fixed and growth mindsets, each presenting an implicit force shaping how leaders set goals, achieve goals, and guiding how they interact with others. For instance, the fixed mindset presents a goal-orientation where behaviours and motivation are directed towards goal-attainment, whereas the growth mindset promotes a learning orientation, with behaviours allied with openness, developing others, stimulating thought and discussion (Dweck, 2000; Heslin et al., 2006; Nussbaum & Dweck, 2008). Key to the relevance of mindset knowledge for our research question is that psychology-derived mindsets are naturally occurring within-leader constructs that are malleable (Burnette et al., 2013; Gollwitzer, 2012). With this context, knowledge extends to mindset priming, activities that target and 'turn on' mental frameworks – an approach that is increasingly being considered in wider leadership discussion to help leaders take control of the mindset they exhibit (Heslin & Keating, 2017; Quinn, 2005). However, the possibility that mindset priming, as developed by psychologists, can be utilized as a leadership development approach in change settings has not yet fully explored.

In this paper, we address our research question on switching leadership engagement with an integrative review of mindset knowledge between change, leadership, and psychology settings. We overview the underlying constructs used to describe mindsets across these domains and then build a typology of key constructs. With this typology, we identify six target mindsets for change leadership. Identifying that mindset knowledge across these settings utilizes a common construct – the behavioural dispositions that mindsets promote – as a means to describe mindset properties, we used a horizontal contrasting approach (Fisher & Aguinis, 2017; Vaughan, 1992) to compare mindset knowledge. In doing so, we establish connections between each of the six target mindsets and a matched mindset from psychology.

Establishing these connections, the paper makes two key contributions for change leadership scholarship. First, we put forward a new perspective on leadership development by proposing mindset priming as a means to promote, and/or switch between, the desired leadership engagement styles for diagnostic and dialogic practices. In doing so, we extend discussion on change practices, suggesting that it no longer needs to assume that leaders will be able to adopt described mindsets. Instead, we provide future leadership with a practical means to align their mindset to their chosen change practice.

Second, we highlight important considerations of mindset knowledge for practitioners. Mindset theory explains how easily and accidentally mindsets can be activated, the consequences of which can be severe. For instance, when a change context requires the discovery of new ideas, our matched mindset is a deliberative mindset – one of open-mindedness. However, the mere act of contemplating how something should be implemented – even if an unrelated context – presents a mindset priming activity that activates an implemental mindset. This mindset fosters a disposition of closed-mindedness which is known to inhibit the processes of discovery (Shalley, 1995). To avoid this problem, our established connections detail the known activities that prime mindsets, enabling leaders to increase awareness of, and take control of, their mindset when leading change.

In what follows, we outline mindset theory, clarifying known constructs and developing a typology for our review. We briefly illustrate how mindsets in different domains – psychology, leadership, and change – relate to this typology. Next, we detail our search for candidate mindsets, followed by illustrating our analysis that identifies congruency between six target mindsets and six psychology mindsets, as well as further congruency between these matched pairs and leadership mindsets. We conclude with a discussion of the contribution of these findings as well as areas for future research.

Mindsets

Early mindset researchers hypothesized that being repeatedly engaged in tasks such as decision-making would deplete cognitive resources and, over time, effectiveness would diminish. However, instead they found the opposite to be true – being engaged in tasks activates the mental frameworks necessary to aid performance (Heckhausen & Gollwitzer, 1987). The term 'mindset' (first used by scholars from the Wurzburg school; see Ach, 1905), is used as a way of referencing this phenomenon. Key to the relevance of mindset knowledge in leadership settings, is that these mental frameworks provide

selective processing of information and promote behavioural dispositions that are conducive to task effectiveness (Brandstätter & Frank, 1997; Gollwitzer & Bayer, 1999).

In psychology settings, two prominent streams of research explain these themes. The first is mindset theory, explored primarily by Peter Gollwitzer and stemming from a focus on motivation and decision-making (Gollwitzer, 1990; Heckhausen & Gollwitzer, 1987). This theory delineates two mindsets, the deliberative and implemental mindsets, that describe the mental frameworks that are conductive to effectiveness during goal-choice and goal-attainment situations. The second stream follows research on how people respond to failure. Originally termed implicit theories and pioneered by Carol Dweck, it explains how a person's implicit beliefs of personal attributes, such as intelligence and personality, affect how they approach challenges and change (see Dweck, 1986) – since re-labelled into the well-popularized terminology of fixed and growth mindsets (see Dweck, 2006).

Relevant for our research interest is the development potential of mindsets. Mindset knowledge extends neuropsychology, where it's understood that in the prefrontal cortex, mental frameworks exist that stand 'ready to fire' following situational-related cues (Johnson et al., 2006; Lord & Levy, 1994). Importantly, mindsets are latent capabilities, presenting a naturally occurring within-person phenomenon (Burnette et al., 2013; Gollwitzer, 2012), meaning that while every person has these underlying mental frameworks, however they may not be 'turned on'. This is analogous to considering the human brain to contain many different processing systems, however not all systems are activated at the same time (Rock, 2008). Crucially, because mindsets operate subconsciously, people are not aware of which mindset they are exhibiting. With this context, relevant for leadership development is that most empirical exploration of mindsets has been drawn from experiments by which mindsets are manipulated within subjects – termed mindset priming. For the above-mentioned mindsets, neurological studies have shown that mindset priming activities alter prefrontal cortex neural activity (Gilbert et al., 2009; Schroder et al., 2014). Thus, the possibility exists to alter a leader's mindset and, as such, their behavioural disposition, by engaging them in targeted priming activities.

With a view to test the relevance of mindset knowledge for leadership development in change leadership settings, we chose mindset theory, as explained by Gollwitzer (2012), as our research lens. We do so because of the precedent of prior scholarship, for instance Clapp-Smith and Lester (2014) utilize this same theory to compare and contrast mindsets between psychology and leadership settings. Further, Levy et al. (2007) use this same research lens to illuminate the properties of leadership mindsets.

Mindset Theory

Mindset theory has been commonly explained via the two mindsets it represents: the deliberative mindset, for goal-choice, and the implemental mindset, for goal-attainment. These separate mental frameworks provide guidance for processing of information in two stages. The first is explained as a 'cognitive tuning towards information relevant' (Gollwitzer, 2012, p. 530), referring to filters of how information is seen. For instance, where a deliberative mindset facilitates goal-choice, the activated mental framework enacts a wider field of vision enabling a greater number of options to be considered. These options are then subconsciously filtered for the information pertinent for choice (Büttner et al., 2014; Fujita et al., 2007). By contrast, an implemental mindset reduces

field of vision and filters information with a single focus on goal-attainment, such as information that will improve how goals can be attained. The second stage of processing is that mental frameworks provide a pre-established means of 'processing of mindset-congruent information' (Gollwitzer, 2012, p. 530). For instance, for the implemental mindset, information is processed with a bias for assessing the feasibility of attaining goals (i.e. which of these options will help achieve a goal more effectively). This processing is closed-minded, focusing on the completion of implementation and, at the same time, deactivating abilities to process information that is non-relevant to goal-attainment, including information that may challenge whether the goal-choice remains valid.

The third stage of this processing is that mental frameworks also guide a range of behavioural dispositions that are allied with task effectiveness. For an implemental mindset, understood behavioural dispositions include greater persistence, enhanced effort, and heightened optimism, as well as an increase in team enhancing actions (Armor & Taylor, 2003; Brandstätter & Frank, 2002). For parsimony, we label the three components of mindset dispositions: *see*, meaning cognitive bias towards seeing mindset-congruent information, *think,* referring to patterns of thinking that process this information, and *act*, meaning behavioural dispositions.

Mindset Priming

Mindset priming presents activities that selectively 'turn on' targeted mental frameworks. Common approaches include having participants engage in an activity that utilizes these functions (Bargh & Chartrand, 2000). For example, priming an implemental mindset is achieved by question-related cues that ponder a goal-implementation (i.e. list the five key considerations in moving to a new house; see Gollwitzer, 2012). Doing so activates the mental frameworks and allied dispositions to *see, think* and *act* in ways that improve choices. Crucial for our research interest in leadership development is that these mental frameworks 'carry over' to the next task, regardless of the context. For instance, by asking a leader to deliberate 'moving to a new house', the mental frameworks that promote effective goal-setting and increased motivation remain activated for subsequent leadership-related tasks. It is important to note that this approach differs from conceptual priming where reactions are primed subliminally, for instance by flashing up images related to the priming activity. Instead, mindset priming requires participants to be willingly engaged in the priming activity.

Given the latent capability of mindsets, a leadership development approach that uses mindset priming need not focus on developing underlying capabilities. Instead, development becomes a focus on activities that calibrate mental frameworks, ensuring that leaders have the correct mental framework for the change context. With this context, the priming activities developed by psychologists present a means to develop change leadership. By engaging in select and key activities, different mental frameworks can be activated that have 'enormous influence' (Gollwitzer, 2012, p. 533) over resulting behaviours.

Mindsets and Leadership Development

Traditional leadership development methods have focused on studying successful leadership and developing a matched set of competencies (i.e. Collins, 2001; Kotter, 2001).

However, the effectiveness of a competency-based approach has been challenged because it generally assumes desired behaviours to be static set that endure as events unfold (Bolden & Gosling, 2006; Grint, 2005). This competency-based perspective is limited for change leadership settings because change is a longitudinal phenomenon requiring leaders to adapt their behaviours to evolving contexts as transformation unfolds (Battilana et al., 2010). A further limitation of this perspective is that, regardless of training interventions, much of information processing is driven by subconscious automatic responses (Bargh et al., 2001; Bargh & Chartrand, 1999; Wilson, 2004).

With these limitations of a competency-based approach in mind, a recent review by Gottfredson and Reina (2020) promotes a mindset-led approach to understanding leadership. This perspective takes the view that leader behaviours are a dynamic outcome of the interaction between situational cues and mindsets. This advancement of mindset discussion in wider leadership settings is also associated with a new perspective for leadership development (Kennedy et al., 2013; Quinn, 2005). Mindset priming has been validated as a leadership development approach to align leaders' dispositions to organizational contexts (Gosling & Mintzberg, 2003; Gupta & Govindarajan, 2002; Heslin & Keating, 2017). For example, priming the deliberative mindset has been correlated with better quality leadership decisions, especially where complexity complicates choice (Griffith et al., 2015; Marcy & Mumford, 2007). Further, priming a growth mindset results in performance improvements in sporting attainment, educational outcomes, and leadership effectiveness (Chase, 2010; Sisk et al., 2018). However, to our knowledge, the possibility that mindset priming is a valid leadership development approach for change leadership settings has not been explored.

Typology of Mindset Constructs

In this section we explain the typology we use to integrate mindset knowledge between change, leadership, and psychology settings. As we have discussed, mindset theory explains a relationship between mindset priming, mental frameworks and allied dispositions to *see, think* and *act* in ways that increase effectiveness. Prior attempts to integrate mindset knowledge between psychology and leadership settings have identified that each of these discussion uses the above constructs with differing emphasis (see Clapp-Smith & Lester, 2014; French & Robert, 2016). For instance, Clapp-Smith and Lester (2014) identify that mindset theory and the global mindset, from leadership settings, both utilize the common constructs of mental frameworks and resulting dispositions. This same analysis utilizes mental frameworks as the basis for review, with limited success, noting that the vast array of terms utilized and inconsistent clarification of key constructs as the main limitation. Separately, French and Robert (2016) identified that mindsets discussed in leadership settings are more likely to be delineated by dispositions and less likely by their mental frameworks, however despite this clarity, this construct was not used as a means for comparison.

To clarify a basis for using the construct of a disposition as a means for comparison, below we briefly illuminate how this construct is a consistent basis for comparison. We do so by illustrating how constructs of mindset priming, mental frameworks and predispositions are utilized across psychology, leadership and change settings. Figure 1

illustrates the common constructs that each of these discussions refer to when explaining mindset notions.

Fixed and Growth Mindsets

These two mindsets are illustrated by the constructs of mindset priming, mental frameworks and dispositions. Described as 'a mental framework that guides how people think, feel, and act in challenging achievement situations' (Heslin & Keating, 2017, p. 370). As with the deliberative and implemental mindsets, the mental frameworks of these mindsets are associated with separate and specific areas of neural activity (Myers et al., 2016; Schroder et al., 2014). Empirical research has also identified the effect of these functions on dispositions to *see, think* and *act*. For example, people with a growth mindset see failure as a learning opportunity, whereas those with a fixed mindset actively avoid failure (Burnette et al., 2013; Mangels et al., 2006). Empirical studies of these mindsets include activities that can calibrate and prime them (Dweck, 2006; Heslin & Keating, 2017).

Leadership

The first notion of a mindset in the discussion on leadership was the global mindset, building on studies of how leadership engages successfully with multinational contexts (Fisher, 1988; Perlmutter, 1969). This mindset illustrates ways of engaging in global contexts to improve effectiveness. Described by Rhinesmith (1992, p. 63) as 'a disposition to see the world in a particular way that sets boundaries and provides explanations for why things are the way they are, while at the same time establishing guidance for ways in which we should behave'. In an extensive review of global mindset literature, Levy et al. (2007) delineate global mindset by both mental frameworks and dispositions, into three attributes: attention (i.e. *see*), interpretation (i.e. *think*) and action (i.e. *act*). This knowledge does not extend to mindset priming.

Additional mindsets, expressed as dispositions, have entered leadership lexicon following empirical observations of leadership in organizational contexts. For instance, the reflective, analytical, worldly, collaborative and action mindsets are identified as the desired dispositions for different stages of a transformation (Gosling & Mintzberg, 2003). Each mindset is illustrated by distinctive dispositions to view, understand, and

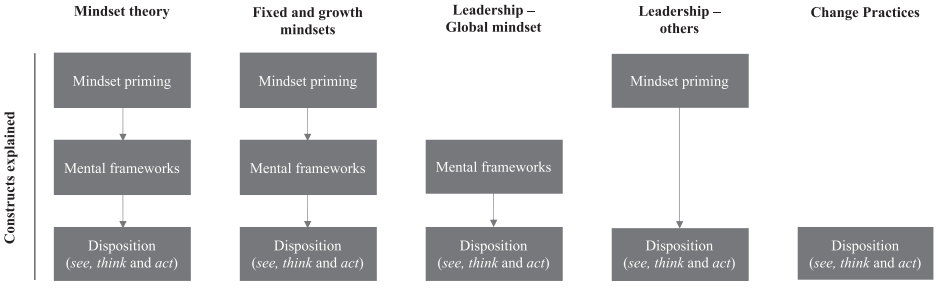

Figure 1. Mindset constructs in psychology, leadership and change settings.

interact with change contexts. The reflective mindset describes a disposition to see the situation as a learning opportunity. Approaches that develop these dispositions are similar to mindset priming as understood by psychologists – relatively modest interventions, such as questions or memory recall activities, that result in radical shifts to how people engage with organizations.

Change Practices

The term mindset has entered the discussion in organizational change as a way of categorizing assumptions on change leadership (Marshak, 1993). As Bushe and Marshak (2015, p. 11) describe it, the notion of a mindset is 'the combination of theories, beliefs, assumptions, and values that shape how one sees and engages the world'. In this setting, the notion of mindsets is discussed purely as dispositions to *see, think,* and *act* when leading change. This context contains no reference to cognitive processes nor priming techniques.

With this context, where prior research has attempted to compare mindsets by their cognitive constructs with limited success, instead we choose to utilize a typology that delineates mindsets by the behavioural disposition they promote, specifically their dispositions to *see, think* and *act*. This typology forms a basis for our comparison of mindsets between change, leadership, and psychology settings.

Integrating Mindset Knowledge

Given this foundation in mindset theory, we explore our research question in three parts. First, we use the above typology to clarify the target mindsets for leadership development, specifically the desired leadership engagement of diagnostic and dialogic practices. Second, we detail our search within psychology and leadership literature for candidate mindsets, referring to mindsets that can be considered for comparison to desired leadership engagement. Third, we compare and contrast target mindsets with candidate mindsets. Below we explain this approach in detail.

Delineating Target Mindsets

The leadership of diagnostic and dialogic change is discussed as requiring separate mindsets (Bushe & Marshak, 2014). A problem with a singular notion of one mindset for each practice is that this limits consideration of different styles of leadership engagement as change unfolds (Ford & Ford, 2012; Oreg & Berson, 2019; Stouten et al., 2018). For instance, Battilana et al. (2010) identify a difference in desired leadership for the initial evaluation process, where leadership diagnoses the purpose and target of change, to the communication process, referring to the motivational aspects of how change is communicated. How leadership motivate others is a key influence on change outcomes (Bass, 1985; Kavanagh & Ashkanasy, 2006). Further, Bartunek and Jones (2017) separate organizational inquiry from change processes. They argue that the singular notion of a mindset has two sub-components, one considering the epistemological perspectives of diagnostic and dialogic processes (i.e. how inquiry is conducted on

organizational reality) and the second relating to change processes, the activities that enable change.

With this context, for our review we delineate change practices as containing three contexts – organizational inquiry (i.e. how knowledge is discovered), change processes (i.e. the actions and activities of change), and motivating others. Given that each of these contexts has two perspectives – diagnostic and dialogic – we therefore delineate six target mindsets: (1) diagnostic inquiry, (2) dialogic inquiry, (3) diagnostic change processes, (4) dialogic change processes, (5) diagnostic motivating others, and (6) dialogic motivating others. For example, diagnostic inquiry calls for objective diagnosis of organizational problems (Beer et al., 1990; French & Bell, 1973), whereas dialogic inquiry suggests discovery of new possibilities (Cooperrider & Srivastva, 1987). For change processes, diagnostic practices call for engagement where change is planned and managed, typically following a set of steps or processes (Kotter, 1995; Stouten et al., 2018), whereas dialogic practices propose learning as change evolves (Corrigan, 2015; Weick, 2000). Finally, for diagnostic practices, motivating others requires setting goals or visions (Kanter et al., 1992; Kotter, 1995), whereas dialogic requires engaging with purpose (i.e. establishing why change is required: Bushe & Marshak, 2016). In what follows, it is these six target mindsets that we use for comparison.

Identifying Candidate Mindsets

We began our search for candidate mindsets by generating a broad search for peer-reviewed articles using the PsychINFO, ProQuest and Google Scholar databases, using the terms 'mindset', 'mind-set' and 'mindsets' in the title. These databases were chosen because we were targeting both leadership and psychology research. We also utilized the broad search capabilities of Google Scholar, using the same search terms and focusing on the first 100 return items per search to keep the results manageable. After removing duplicate search results, this initial search yielded 433 unique articles.

With this article set, we aimed to filter the articles that genuinely explored the concept of a mindset. We recognized that the term mindset is often used outside of the context of our typology, for example, when the term is used solely in the title of a paper (see Cassiman, 2015; Wright & Geroy, 2001). With this view, we refined our search results by reading the full abstract of each article and filtering out papers where the term mindset was not present in the abstract, eliminating 55% of articles. From this set, our interest was then to create a list of candidate mindsets. Noting that some articles referred to a single mindset whereas others referred to several mindsets, for instance Achor (2012) describe the positive mindset whereas Gosling and Mintzberg (2003) describe five mindsets, we read the full text of each and made a list of the mindsets referred to. This list detailed 57 unique mindsets – representing an initial list of candidate mindsets.

To refine this initial list, we tested each of these mindsets with respect to our typology and specifically our chosen construct for comparison – dispositions. Using a rubric, for each of these 57 mindsets, we read the full text of the articles that referred to them and noted explanations of the predisposition they foster with respect to *see, think* and *act*. At this stage of our review, several popular mindsets were eliminated. The entrepreneurial mindset was excluded because, while this concept is widely discussed, it is more discussed as a way of thinking and less discussed as a predisposition to *see, think* and *act*

(MacGrath & MacMillan, 2000). Another excluded mindset was the paradoxical mindset, which is described as an awareness, or acceptance, of organizational tensions (Miron-Spektor et al., 2018; Simpson & Berti, 2019) and, as such, did not fit our review. With this consolidation, our final list of candidates consisted of 26 mindsets. We note that while these two mindsets remain a valuable contribution to knowledge and future reviews may establish a connection between these ways of thinking and the mental frameworks of other mindsets, given that our focus for comparison is behavioural dispositions, they remain outside the scope of our study.

Comparing Dispositions

To compare dispositions between our six target mindsets and candidate mindsets, we used a horizontal contrasting approach, examining how mindset constructs connect between different contexts (Fisher & Aguinis, 2017; Vaughan, 1992). To do so, we employed a facet analysis – an approach prior utilized to integrate knowledge from different research perspectives on the concepts of change readiness and resistance to change (see Bouckenooghe, 2010; Holt et al., 2007). A facet is a relevant conceptual dimension, underlying a construct that is relevant to all objects within a studied set (McGrath, 1968). Applying a facet analysis means that if the three facets (i.e. *see, think,* and *act*) are congruent, then we can conclude that the dispositions themselves are congruent and as such the mindset notions are congruent.

Having established a list of candidate mindsets from psychology and leadership literature, our next step was to compare the dispositions of these mindsets with the six target mindsets. Specifically, for each candidate mindset, we looked for recent summary or review papers and delineated the empirical attributes of each mindset candidate with respect to the three facets. Combining these data together in a master set, we then conducted a content analysis at a facet level to compare and contrast attributes. It was at this facet level where the conceptual connection between dispositions was uncovered.

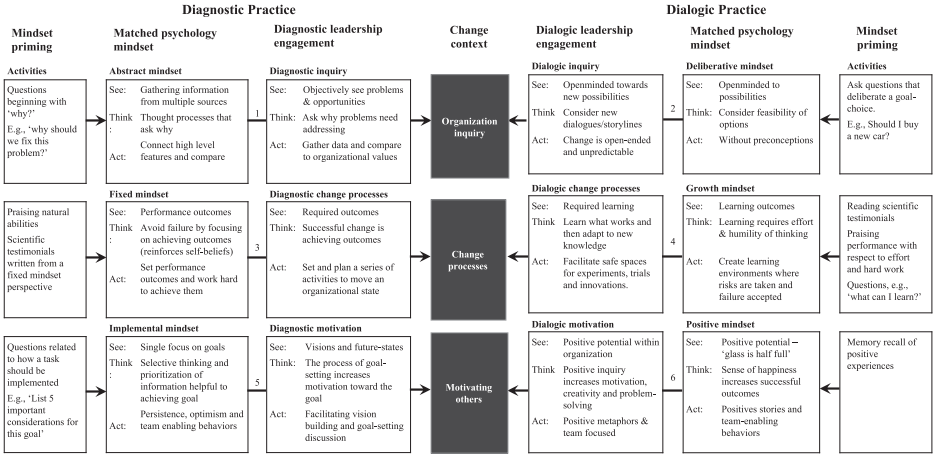

Figure 2. Connecting target mindsets and candidate mindsets.

With this focus, we establish connections between each of the six target mindsets and a mindset from psychology literature. These connections are illustrated in Figure 2 showing that each target mindset is delineated by the three components of *see, think* and *act*. Similarly, psychology mindsets are illustrated by their same three facets. This figure also illustrates the mindset priming approaches developed by psychologists.

Connecting Leadership Engagement and Mindset Dispositions

We illustrate the six connections between target mindsets and candidate mindsets in four parts. First, we commence with the target mindset. Second, we follow by delineating the behavioural disposition of the matched psychology mindset. Third, we detail the available mindset priming approaches for psychology mindsets and, having established a connection to a target mindset, we propose that these same approaches are available for leadership development. Finally, we illustrate further established connections between these matched pairs and leadership mindsets.

Diagnostic Inquiry

Target Mindset

For diagnostic practices, inquiry is the first activity of change. Diagnostic practices adopt a positivist, objective perspective, where organizations are seen as independent, analyzable entities. Whereas, dialogic practices adopt a social constructionist perspective, where it is the narrative expressed between organization members that represents reality (Bartunek & Jones, 2017; Bushe & Marshak, 2009). As such, diagnostic practices focus inquiry on an objective assessment of organizational facts (Beer et al., 1990; French & Bell, 1973), such as problems with attitudes and beliefs of the people within an organization (sometimes termed 'organizational health', see Burke, 2011), or the strengths or weaknesses (Beer et al., 1990; Cooperrider & Srivastva, 1987).

For leadership, the desired engagement is not simply *analyze then do*. Instead, they should question and challenge information with emphasis placed on understanding *why* change is needed, for instance, does change connect with organizational values? (Kanter et al., 1992). Such a focus saves wasting time and energy implementing solutions to a poorly defined, and potentially wrong, problem. Diagnostic inquiry directs leadership to first collect data that explains a problem. Once the data identifies a problem, leadership must ask why addressing this problem will be helpful for the companies' values or purpose. This understanding informs a decision on the initiation of a change program. A summary of these three facets of diagnostic inquiry – *see, think* and *act* – is illustrated in Figure 2.

Abstract Mindset

Reviewing our candidate mindsets by their facets and comparing these facets to diagnostic organizational inquiry, our analysis shows the abstract mindset to facilitate a congruent disposition (illustrated as connection 1 in Figure 2). The abstract mindset directs leadership to gather and process information with respect to why change is necessary (Freitas et al., 2004; Gilead et al., 2013). This mindset follows the axiom that decision-making can follow different levels of abstraction, from high levels that represent an

actions purpose (and thus the primary concern), to low level constructs that present actions processes that are of secondary concern (Vallacher & Wegner, 1987, 2014). For example, solving a problem could be constructed as 'problem-fixing' which is a low-level abstraction, or 'organizational change' which is high-level abstraction.

When analyzed through the three facets of our analysis, the abstract mindset predisposes people to act by gathering information from multiple sources. They then become predisposed towards seeing the high-level features in this information rather than the unnecessary details (Liberman & Förster, 2009). This mindset directs thinking towards '*why*' by collating information into easier and more considered patterns that are relevant for choice-making (Trope & Liberman, 2003) and then comparing and contrasting these patterns with underlying values (Torelli & Kaikati, 2009). As such, a person with an abstract mindset is able to collect large amounts of information and present summary details that convey clarity and purpose. This facilitation of a disposition to *see, think* and *act* is congruent with the three facets of the diagnostic organizational inquiry. Establishing this connection, we propose:

> Proposition 1: Priming of the abstract mindset fosters the desired leadership engagement of diagnostic inquiry.

Mindset Priming

An abstract mindset can be primed by asking questions beginning with *why* – such as *why should we fix that problem?*, or *why would this opportunity be beneficial for my organization?* (Freitas et al., 2004). In the context of change, priming a person by asking them to consider the why of an unrelated activity primes them with the abstract mindset, along with a disposition that is congruent to the diagnostic inquiry mindset. Key to the benefits of priming, is ensuring that priming takes place before the mindset is desired in organizational settings. Priming the abstract mindset has been demonstrated to benefit complex decision-making. The mindset reduces pre-existing bias (Malkoc et al., 2010), reduces the number of compromises made (Xu et al., 2013), and assists leadership to make decisions and judgments that are more connected with underlying organizational values (Hunt et al., 2010; Torelli & Kaikati, 2009).

Connection with Leadership Mindsets

Our facet analysis identified that both the analytical mindset presented by Gosling and Mintzberg (2003), as well as the strategic element of the global mindset (Levy et al., 2007), facilitate the congruent dispositions. Similar to the diagnostic organizational inquiry, these mindsets are not solely presented as an 'analyze then do'. Instead, they promote deeper and richer levels of analysis by promoting dispositions that seek out new information, create simplified constructs to understand information, and then rigorously reflect on this information before making decisions.

Dialogic Inquiry

Target Mindset

The epistemology of dialogic practices is one of social-constructionism, directing leadership to see change as open-ended, continuous and unpredictable (Burnes, 2009; Weick, 2000).

Where a diagnostic practices mindset suggests a focus on 'what is the problem?', with dialogic practices the focus shifts to 'what could be?' (Cooperrider & Srivastva, 1987). With this perspective, organizational reality is no longer seen as something that can be objectively analyzed, rather it is seen as a product of ideas and beliefs that is expressed through conversation between organizational members (Burke, 2011; Marshak et al., 2015). Change occurs when new ways of talking replace old ways of talking (Bartunek & Jones, 2017). For leadership, this means abandoning any preconceptions of future outcomes and instead becoming open-minded to new possibilities. Thinking is directed toward the understanding that change is achieved only when new narratives or conversations emerge. Action is directed away from managing future outcomes, because once new storylines emerge, action occurs naturally through self-organizing (Bushe & Marshak, 2015). Instead, leadership becomes part of the processes of discovery of new possibilities, working together with their teams to co-create the future.

Deliberative Mindset

Our analysis identifies that deliberative mindset facilitates dialogic organizational inquiry (see connection 2 in Figure 2). This mindset promotes open-mindedness, meaning that people with this mindset do not follow preconceived ideas, choices or paths (Fujita & Trope, 2014). The deliberative mindset is one of the two mindsets described by the mindset theory of action phases (Gollwitzer, 2012), which itself builds on Lewin's (1926) tension system theory of goal pursuit. Our facet analysis of this mindset revealed a disposition where a greater number of possibilities are seen, not just the immediate options. Studies have identified the physical impact of this mindset in that it increases peripheral vision (Büttner et al., 2014; Fujita et al., 2007). This disposition assumes thinking towards the feasibility of achieving these possibilities (Gollwitzer, 2012). People primed with this mindset become realistic, unbiased decision-makers. They make more rational, impartial and emotion-free decisions. This mindset promotes behaviours that seek out new, and potentially previously unknown, possibilities. In establishing this connection, we propose:

> Proposition 2: Priming of the deliberative mindset fosters the desired leadership engagement of dialogic inquiry.

Mindset Priming

A deliberative mindset can be primed by asking questions associated with deliberating a choice, such as 'should I move office?' (Gollwitzer, 2012). Mindset priming is maintained, at a minimum, until the next subsequent task. In the context of change, people wishing to adjust their engagement style towards a dialogic organizational inquiry can prime this mindset by considering whether or not to move office. This priming will alter their engagement towards one that is open-minded towards discovering new possibilities. Studies show that people primed with a deliberative mindset have been found to make better quality decisions (Griffith et al., 2015) and students primed with this mindset are able to identify high-quality solutions when faced with complex challenges (Marcy & Mumford, 2007).

Connection with Leadership Mindsets

Other mindsets within leadership literature illustrate similar dispositions to dialogic organizational inquiry. These are the cultural component of the global mindset (Hannerz, 1996, p. 163), the externally focused mindset from the fundamental state of leadership (Quinn, 2005), and the 'hanging out' mindset from the Jazz mindset (Bernstein & Barrett, 2011). These mindsets promote world views of discovery, illustrating a shift from 'what is the problem?' to 'what could be?'

Diagnostic Change Processes

Target Mindset

Diagnostic practices describe leadership engagement as the setting and executing of predetermined steps, designed for moving an organization from its current state to a desired future state (Harigopal, 2006; Kotter, 2012). Consistent across these steps is a view that change should be planned, managed and controlled towards a desired outcome. Each step also has a desired outcome. For instance, 'select and support a guiding coalition', Kotter (1995) gives specific guidance for the number and type of people who should be on a guiding coalition. Also, for step eight ('identify short term wins') both Kotter (1995) and Hiatt dictate how these wins should be communicated to the wider organization. These examples, and many others, direct leadership towards a disposition to see change as a set of outcomes. Once steps are planned and outcomes defined, leadership should engage by working towards achieving those outcomes, step-by-step. Failure to follow or successfully implement these steps is associated with change failure.

Fixed Mindset

Our facet analysis shows that the fixed mindset facilitates this leadership engagement (connection 3, Figure 2). While the fixed mindset is commonly associated with avoidance of failure (see Dweck, 2000; Dweck, 2006; Hong et al., 1999), applying our analysis uncovers a lesser-discussed attribute of this mindset that is relevant for the context of our research question. The fixed mindset predisposes a performance-goal orientation, meaning that people with this mindset approach change by setting outcomes and then working towards achieving those outcomes (Dweck & Leggett, 1988; Kray & Haselhuhn, 2007). Underlying this perspective is a belief system where success reflects a pre-existing natural ability and failure reflects lack of natural ability (Dweck, 1986). These beliefs, combined with the aforementioned desire to avoid failure, mean that people with a fixed mindset are more likely to set outcomes that they already know they can achieve (Hong et al., 1999). While literature espouses the benefits of a growth mindset (see Chase, 2010; Dweck, 2006; Heslin & Keating, 2017), often overlooked in this discussion are the benefits of a fixed mindset. As an example, when problems are encountered, people with a fixed mindset will work harder, when compared to those with growth mindset, to achieve their desired outcomes (Park & Kim, 2015; Plaks & Stecher, 2007). This benefit is due to the nature of a fixed mindsets, namely that people with this mindset will work hard to reinforce their belief structures about their own abilities. Establishing this connection:

Proposition 3: Priming of the fixed mindset fosters the desired leadership engagement of diagnostic change processes.

Mindset Priming

A fixed mindset is primed by praising natural abilities (e.g. 'you are so smart'; see Dweck, 2006), through setting a performance goal (Wood & Bandura, 1989) or through the reading of a scientific testimonial written from a fixed mindset perspective (Burnette et al., 2013; Heslin et al., 2005).

Dialogic Change Processes

Target Mindset

For dialogic change processes, leadership engagement is one of fostering environments where new possibilities emerge, and then learning what works and what doesn't (Barrett, 2015; Storch, 2015; Weick, 2000). This disposition focuses leadership on activities that promote learning (Bushe & Kassam, 2005; Collins & Hansen, 2011; Weick, 2000), meaning encouraging teams to trial new ideas, innovate and experiment (Bushe & Marshak, 2015; Gilpin-Jackson, 2015). By adopting a disposition that change is a learning process, rather than a defined set of steps, leadership are able to respond and adapt their actions as new knowledge is gained. Further, this outlook promotes a positive perspective on failure because of the learning that it generates.

Growth Mindset

Our analysis reveals the growth mindset to facilitate a congruent disposition (see connection 4, Figure 2). The growth mindset facilitates a disposition where challenges and change are viewed with a learning orientation (Hong et al., 1999; Kray & Haselhuhn, 2007). As with the fixed mindset, growth mindset stems from research into how people respond to failure. While it is commonly associated with learning from failure, our facet analysis identifies that people with a growth mindset see change as a learning outcome. This means approaching change as 'we are learning how to do things differently', instead of 'this is what we will do differently'. People with a growth mindset think by understanding that outcomes are a product of effort employed and strategies used (Dweck, 1986). Also, failure is acceptable providing learning results from it. This mindset facilitates the setting of challenges that promote learning (Dweck & Leggett, 1988). When undertaking those challenges, people with this mindset act with humility, often saying 'I don't know the answer' and also being open to feedback, updating their knowledge, actions and behaviours in response. This disposition promotes acting in ways that foster learning environments and this connection suggests:

Proposition 4: Priming of the growth mindset fosters the desired leadership engagement of dialogic change processes.

Mindset Priming

Common methods to prime the growth mindset are by praising performance with respect to effort (Mueller & Dweck, 1998, p. 26), self-reflection activities, or by reading scientific

testimonials written with a growth mindset perspective (Kray & Haselhuhn, 2007). The combination of priming with testimonials together with self-reflection has been demonstrated to give an effect that lasts for six weeks (Heslin et al., 2005). The positive effects of a priming growth mindset and the learning disposition that it facilitates have been widely discussed in the fields of education (Boyd & Gupta, 2004; Sisk et al., 2018) and sport leadership (Chase, 2010). In the context of organizational change, Caniëls et al. (2018) identified that organizations with a higher proportion of growth mindset team members were more likely to achieve successful change outcomes.

Connection with Leadership Mindsets

Within the discussion on leadership, the concept that leaders should embrace a learning orientation is widely discussed (see Barrett, 2012; Garwin, 1993; Gosling & Mintzberg, 2003). Empirical evidence correlates this learning disposition with organizational success (see Collins & Hansen, 2011; Elstein & Driver, 2007). Our review identified two similar mindsets to the dialogic processes mindset, namely the reflective mindset (Gosling & Mintzberg, 2003) and the 'errors as a source of learning' mindset (Barrett, 2012). These mindsets promote a disposition of approaching challenges and change as learning opportunities, where failure is tolerated, provided learning results from it.

Diagnostic Motivating Others

Target Mindset

For diagnostic practices, motivation is achieved by setting a clear and compelling future state. Setting such an end-state illustrates a desired outcome for the change program (Kotter, 1995) that is communicated in a way that signals separation from the past (Kanter et al., 1992). This knowledge builds on goal theory where the setting of specific and challenging goals increases the possibility of those same goals being achieved (Locke & Latham, 1990). This same theory also applies to shared goals where organizational change is targeted, whereby if alignment on a goal can be achieved, people will work together to achieve that outcome (Kleingeld et al., 2011). This practice requires leadership engagement whereby they see change as the setting of desired future states. Leadership should think that by setting future states, dissonance to the current context will be created, and by doing so, motivation will be achieved. They act by facilitating collaboration and discussion on future outcomes, followed by agreement on, and communication of, these outcomes.

Implemental Mindset

Our facet analysis identifies that implemental mindset activates a disposition that is congruent (see connection 5, Figure 2). This implemental mindset motivates towards the implementation of goals, by facilitating a disposition that is closed-minded and more singly focused on processing information relevant to achieving a goal. The implemental mindset facilitates a disposition to selectively filter the information relevant to the achievement of the chosen goal (Fujita et al., 2007; Gollwitzer, 1990; Heckhausen & Gollwitzer, 1987). As such, peripheral vision reduces and people focus selectively on information in the foreground and ignore information in the background that might

challenge the choice of outcome (Büttner et al., 2014). People with this mindset think more optimistically (Puca, 2001) and have greater awareness of the help available to achieve the goal. Finally, they act with greater persistence (Brandstätter & Frank, 2002) and exhibit greater team-enabling behaviours (Taylor, 1989). In establishing this connection, we propose:

> Proposition 5: Priming of the implemental mindset fosters the desired leadership engagement for diagnostic motivation.

Mindset Priming

The implemental mindset can be primed by asking questions related to how tasks should be implemented, for example by asking people to list the most important things to consider when implementing a chosen goal (see Gollwitzer, 2012). An implemental mindset is also activated naturally after making a goal-choice (Heckhausen & Gollwitzer, 1987). The effect of this priming remains, at a minimum, until the subsequent task.

Connection with Leadership Mindsets

Our review identifies that the action mindset and the results-centered mindsets (Gosling & Mintzberg, 2003; Quinn, 2005) illustrate a similar disposition to the diagnostic motivation mindset. These mindsets promote a disposition of closed-mindedness, with an action-orientated, single focus on getting things done.

Dialogic Motivating Others

Target Mindset

Considering that dialogic practices follow the premise that the outcomes of an organizational change program are uncertain, a natural question is 'how to motivate others?' Bushe and Marshak (2015) propose a core process that establishes motivation via a generative metaphor. This metaphor is a conceptual image that illustrates a positive perspective of the future. Doing so provides motivation to challenge assumptions and ideas of what is possible (Bushe & Storch, 2015). An example of such a metaphor is 'building a sustainable future', a statement in contrast to a diagnostic practices perspective which could be 'increase the sustainability index by 10 percentage points'. A substantial component of this disposition is a shift in focus from problems towards positive narratives (Marshak, 2013). This switch towards the positive has a contagious effect on positive emotions, helping people become more resilient and increasing openness, creativity and desire for action (Fredrickson, 2004). Within organizational change, this approach is refined by the method of appreciative inquiry (AI), described as a relentless focus on the positive (see Bushe & Kassam, 2005).

For the dialogic motivation mindset, leadership adopt a disposition that focuses on the positive potential existing within an organization, for instance shifting conversation from 'what's broken?' to 'what works?' The thinking that this disposition promotes is an understanding that positive motivations create environments that increase innovation and problem-solving capabilities. Leadership should act in ways that are positive, and team focused.

Positive Mindset

Our facet analysis identifies the positive mindset as facilitating a similar disposition (see connection 6, Figure 2). This mindset stems from research in positive psychology, where it is known that happiness improves a person's probability of success in the workplace (Avey et al., 2011; Lyubomirsky et al., 2005). A popularly held misconception is that only people's genetic dispositions or their environments are antecedents to happiness (Achor, 2012). Instead, positive psychology presents the axiom that people's general sense of happiness and wellbeing is a cognitive function that is malleable and can be altered. By activating associated mental frameworks, a person's sense of happiness increases naturally and therefore increases that person's chance of successful outcomes (Achor, 2012; Avey et al., 2011; Seligman & Csikszentmihalyi, 2000). The positive mindset creates a disposition that sees positive potential in situations and others. It promotes a way of thinking that a focus on the positive is a better and more effective way to engage with problems and opportunities and facilitates acting through positive stories and positive team-enabling behaviours. In establishing this connection, we propose:

> Proposition 6: Priming of the positive mindset fosters the desired leadership engagement for dialogic motivation.

Mindset Priming

The positive mindset can be primed by engaging leadership in positive memories, with the effects of this priming remaining for up to four months (Achor, 2012). Nurturing positive thoughts have been found to improve individual performance in the face of challenges (Achor, 2012) and improve workplace team-based behaviours, job success and performance (Avey et al., 2011; Lyubomirsky et al., 2005; Myers et al., 2016).

Connection with Leadership Mindsets

Our review of leadership literature identified three mindsets that facilitate similar leadership engagement. These are the collaborative mindset, from the five minds of a manager (Gosling & Mintzberg, 2003), the 'other focused' mindset from the fundamental state of leadership (Quinn, 2005), and the affirmative mindset from the Jazz mindset set (Bernstein & Barrett, 2011). These mindsets promote dispositions towards seeing the positive potential that exists within teams. With this positive disposition, leaders will act in ways where they understand that teams themselves will take responsibility, collaborate, and self-organize to achieve successful change.

Discussion and Conclusion

By exploring *how to switch leadership engagement between diagnostic and dialogic practices,* this paper makes two key contributions for change leadership scholarship and practice. It presents a new perspective on leadership development – mindset priming – and, in doing so, it highlights important considerations of mindset knowledge for practitioners. Further, to aid future researchers of mindsets, this paper also establishes and tests a typology of constructs as a means to compare mindset knowledge.

Change Leadership

Connecting target mindsets for the leadership of change practices to psychology-derived mindsets, enables a fresh perspective on leadership development. One of the great things of extant mindset knowledge – in psychology settings – is the plethora of research on priming mechanisms. Scholars have identified that mindset priming can be achieved through relatively straight-forward activities such as reading scientific testimonials (Kray & Haselhuhn, 2007), asking questions (Gollwitzer, 2012), framing challenges (Dweck, 2006) or watching a short video (Crum et al., 2013). These activities have been tailored to utilize, and as such activate, the allied mental frameworks and, in doing so, promote allied behavioural dispositions.

In this paper, we have shown how psychology-derived mindsets are relevant for change leadership. We have done so by linking the behavioural dispositions of psychology mindsets with the available descriptions of leadership engagement for diagnostic and dialogic change practices. In establishing these connections, we have developed six propositions to test whether these same mindset priming activities are relevant for leadership development in change settings. Should these propositions be confirmed, a new avenue for leadership development becomes available. The basic idea is that those involved in change leadership should first identify the context of change leadership (i.e. organizational inquiry, change processes or motivating others) and then determine the practice of change (i.e. diagnostic or dialogic) – thus identifying a target mindset. They should then consider the matched psychology derived mindset and undertake the allied activities that 'turn on' this mindset. In doing so, they will subconsciously activate the mental frameworks that guide behavioural dispositions conducive to effective leadership engagement.

This perspective extends the existing focus on leadership behaviours and leadership engagement. As we have argued, this current often carries the assumption that by describing leadership behaviours, leaders will be able to adopt them. While there are certainly possibilities where this assumption is valid, there is also a growing consensus that leadership behaviours are a dynamic outcome of the interaction between situational cues and mindsets (Gottfredson & Reina, 2020; Heslin & Keating, 2017). With the present study as a basis, we propose that targeting mindsets for leadership development acknowledges this dynamic interaction and provides scholars and practitioners with a key antecedent for leadership behaviours, that can be manipulated via priming. Doing so puts leaders in greater control of how their behaviours manifest in practice.

To reap the benefits of a focus on mindsets, we highlight three factors that future scholars and practitioners must be made aware of. First, they must understand the enormous influence of mindsets over how leaders *see, think* and *act*. Becoming aware of how mental frameworks predispose behaviour opens the door to understand that conscious approaches to leadership development, such as training interventions, are, on their own, not sufficient to present complete control over exhibited behaviours. Instead, increasing awareness of how mental frameworks act subconsciously to promote behavioural dispositions encourages future scholarship and practice to embrace consideration of conscious mechanisms that take control of these subconscious processes. Second, to reap the full benefits of mindset knowledge, they must properly distinguish between change contexts. Recent research shows that is no longer sufficient to consider change as *either* diagnostic or dialogic, instead modern and complex change environments

provoke a dynamic application of change processes, where change can switch between these two practices at any time during the three stages of change evolution – organizational inquiry, change processes and motivating others (see Hastings & Schwarz, 2021). Future scholarship and practice should consider this more fine-grained view of change practices as a means to provide a more precise focus for leadership development. Third, they must develop an understanding of the ways and means that mindsets are activated, either intentionally or unintentionally. Only by increasing awareness of priming activities and the vast affect they have on behavioural dispositions will leaders stand a chance to take control over their exhibited behaviours.

Considerations for Practitioners

This review of mindset properties highlights considerations relevant for practitioners. Mindsets operate subconsciously, meaning that leaders may not be aware of the mindset they exhibit. Once primed, even if accidental, mindsets remain activated when new contexts are encountered (Bargh & Chartrand, 2000; Sassenberg & Moskowitz, 2005). Given this knowledge, if leaders switch from diagnostic to dialogic processes without undertaking a corresponding priming activity, it is likely that they will carry-over their previous mindset. For example, in diagnostic motivational contexts, leadership should set a future outcome for change. If they then switch to a dialogic motivation process, without switching mindsets, they will carry over their previous disposition; one of setting goals – a disposition that is known to counteract the creative and discovery processes (Shalley, 1995).

Another consideration for practitioners is the relative simplicity by which mindsets can be accidentally primed, for example, people may be working hard to establish a learning focus by fostering a growth mindset. However, an implemental mindset can be primed by the simple task of decision-making, even for an unrelated context, such as deciding on a new car. Thus, the simple act of buying a car shifts a person's mindset, unconsciously, to an implemental mindset and a disposition of 'getting it done'. To address this issue, in this manuscript we have detailed the known priming activities for the six psychology-derived mindsets that are relevant for change leadership. It is important that practitioners are aware of the nature of these activities and actively review change contexts with the view to identify situations that may, accidentally and without awareness, activate an undesired mindset. Additionally, this same knowledge also contains information relating to calibrating mindsets – simple and effective tools that can identify mindsets, giving those leading a change an instrument to ensure they have the correct mindset before engaging in leadership.

Future Scholarship

In establishing connections between target mindsets and psychology mindsets, we illustrate six propositions to test the relevance of mindset priming in practice. In doing so we note that prior research of mindsets in leadership settings has largely focused on the well-popularized fixed and growth mindsets, overlooking the possibility that other mindsets are more appropriate representations for leadership. Our approach brings forward four additional mindsets to leadership discussion – the deliberative, implemental, abstract and positive mindsets – increasing the available knowledge of mindsets developed by

psychologists that can be brought to bear for practitioners. Should these propositions be confirmed, several aspects of this theorizing provide a foundation for new research.

A key aspect of generalizing this knowledge for change leadership settings is the nature of priming. Existing knowledge of mindset priming follows relatively positivist, individually focused interventions. While research has confirmed a direct relationship between these activities and individually altered dispositions, research also explains that social cues prime mindsets (Murphy & Dweck, 2010). For instance, for a leader entering an environment with a high number of growth mindset individuals, it is likely that social interactions will prime a growth mindset in that same leader (Heslin & Keating, 2017). This context points to further allied questions for future research, such as: W*hat proportion of team members are required to be primed to ensure a growth mindset is maintained across a team? What are the social conditions by which priming fades over time?* and *Who within a team should be primed?*

Future scholarship could also contemplate the temporal nature of priming effectiveness. Current research continues to explore the duration of priming in ways related to the dependent variable of focus. For instance, where priming the deliberative mindset has targeted improving the quality of goal choices, the priming activity is typically undertaken immediately before a decision-making task. It is known that in this context priming results in a sticky activation of a mental framework that carries over, at a minimum, until the decision has been attempted (Gollwitzer, 2012). Separately, for a growth mindset, priming interventions are often studied with respect to education outcomes and, as such, the effects of priming have been demonstrated to endure for a full school year (Van Yperen et al., 2014). Change is a longitudinal phenomenon, sometimes extending over months and years. With this context, further research is required to understand the temporal nature of priming in change contexts, this focus should also include consideration of the above-mentioned social considerations which may, in themselves, provide cues that activate undesired mindsets thus curtailing prior priming activities.

To aid this future development, we highlight the benefits of a focus on the construct of behavioural dispositions as a means to compare and contrast mindset knowledge. As we have explained, to date, mindset researchers in organizational domains have focused their work on describing leadership engagement, while at the same time, attempts to contrast mindsets between organizational and psychology domains have focused on mental frameworks. We contribute a comparative focus on dispositions, with three key benefits. First, this construct is more consistently utilized in discussion of mindsets across domains, therefore increasing the scope of comparable mindsets. Second, a focus on dispositions allows scholars and practitioners to move beyond descriptions of mental frameworks, which are difficult to empirically measure in leadership contexts, to practical real-world observable realities that can be assessed as the social processes of leadership unfold (i.e. how one *sees, thinks* and *acts*). Third, in the context of change leadership, it is the disposition that is the targeted outcome for leadership development. As such, using this construct presents a more practically relevant approach, aligned with the very purpose of leadership development.

Disclosure Statement

No potential conflict of interest was reported by the author(s).

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