



# Illuminating the foundational role that mindsets should play in leadership development



Ryan K. Gottfredson<sup>a,\*</sup>, Christopher S. Reina<sup>b</sup>

<sup>a</sup> *Mihaylo College of Business & Economics, California State University – Fullerton, 800 N. State College Boulevard, Fullerton, CA 92831, U.S.A.*

<sup>b</sup> *School of Business, Virginia Commonwealth University, 301 W. Main Street, Box 844000, Richmond, VA 23284-4000, U.S.A.*

## KEYWORDS

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**Abstract** Mindsets are individuals' mental lenses that selectively organize and encode information, thereby orienting them toward a unique way of understanding their experiences and guiding them toward corresponding actions and responses. Decades of research have demonstrated that mindsets are foundational to how individuals process and operate. Despite this research, mindsets have largely been overlooked by practitioners when developing leaders. In this article, we seek to illuminate the foundational role mindsets play in leadership effectiveness to elicit greater emphasis on mindsets in leadership development. To do so, we explore what mindsets are, why they are so important for leadership development and effectiveness, and which mindsets leaders could further develop to operate more effectively. Specifically, we review the research associated with four different sets of mindsets—(1) fixed and growth mindsets, (2) goal orientations, (3) implemental and deliberative mindsets, and (4) prevention and promotion mindsets—to demonstrate how each affects leaders' effectiveness. We conclude by discussing how leadership developers and leaders themselves can focus on mindsets to improve leadership effectiveness.

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## 1. Are you overlooking mindsets in your leadership development efforts?

For many, “mindsets” is a fluffy concept associated with getting your mind right. But mindsets are

\* Corresponding author  
E-mail addresses: [rgottfredson@fullerton.edu](mailto:rgottfredson@fullerton.edu) (R.K. Gottfredson), [csreina@vcu.edu](mailto:csreina@vcu.edu) (C.S. Reina)

a concrete concept with decades of research backing. To define the term clearly, *mindsets* are individuals' mental lenses that selectively organize and encode information, thereby orienting them toward a unique way of understanding their experiences and guiding them toward corresponding actions and responses (Crum, Salovey, & Achor, 2013). Decades of extensive research on specific mindsets have consistently demonstrated that mindsets foundationally influence how people process and operate, and ultimately how effective they are (see Burnette, O'Boyle, VanEpps, Pollack, & Finkel, 2013; Gollwitzer, 2012; Lanaj, Chang, & Johnson, 2012; Vandewalle, Nerstad, & Dysvik, 2019). Yet, despite all this research, relatively little attention has been given to mindsets in the leadership domain across both academia and corporate settings.

We recently surveyed internal leadership development employees across 153 organizations, and only 12% said they focused on mindsets as part of their leadership development efforts. More commonly, they focused on interpersonal skills (72%), management skills (e.g., planning, decision-making; 54%), and leadership styles (e.g., transformational leadership, servant leadership; 50%; Gottfredson, 2020). Comparatively, most organizations seem to overlook mindsets to develop their leaders. Yet, mindsets are foundational to how leaders process and operate. We believe this is a major oversight with significant implications for leadership development and effectiveness.

In this article, we review and summarize mindset research over the last 30 years and leverage its

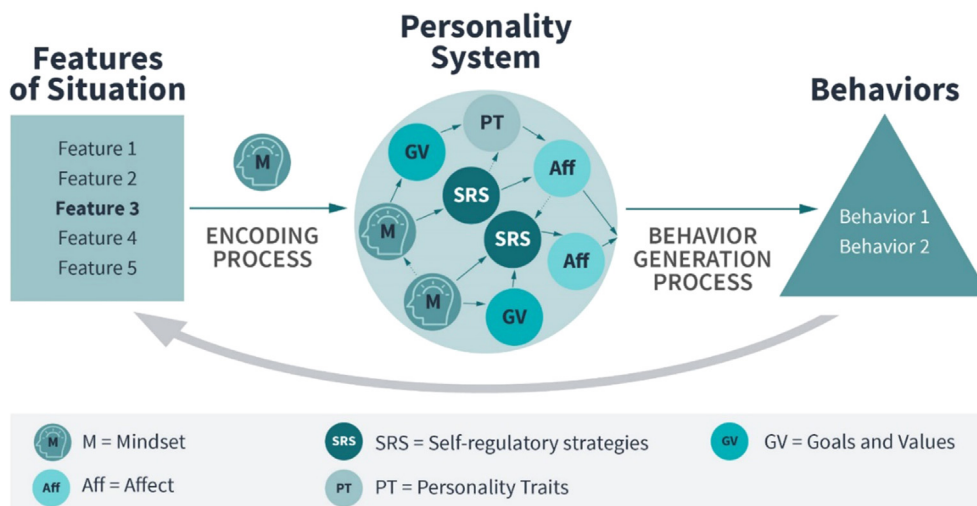
insights into the realm of leadership development. Specifically, we explore what mindsets are and why they are so important for leadership development and effectiveness. We identify four sets of mindsets that research indicates have a significant influence on the effectiveness of leaders' processing and operation. Importantly, among each of these sets of mindsets, research has consistently identified which are most conducive to leadership effectiveness. We then leverage this information to discuss the importance of integrating mindsets into leadership development efforts and how to most effectively do so.

## 2. What are mindsets and why are they so important for leadership development and effectiveness?

To understand just how foundational mindsets are to leadership effectiveness and why it is critical we do not overlook them when developing leaders, we need to understand the Cognitive-Affective Processing System (CAPS) framework (Mischel & Shoda, 1995, 2008). CAPS is designed to explain why people do what they do, which includes leaders. The full framework is identified in Figure 1.

This framework suggests that leader behaviors can be explained by their personality system, the situations they encounter, and the encoding process that integrates the situation with their personality system. We discuss the interplay of these components next.

Figure 1. Model of the Cognitive-Affective Processing System (CAPS)



Adapted from Mischel & Shoda, 2008, p. 212

The personality system represents the complexity of who individual leaders are internally, including their traits, self-regulatory strategies, goals, values, mindsets, and emotions. Most leadership development efforts have focused either on this issue or more directly on the behaviors that they drive. The assumption for focusing on the various elements of the personality system in leadership development has largely been this: if we can help leaders develop the traits of effective leaders, they will apply these traits across the situations they encounter (Michel & LeBreton, 2011; Park, Arvey, & Tong, 2011; Zaccaro, Green, Dubrow, & Kolze, 2018). This was confirmed when we found that most leadership development efforts focused on interpersonal skills, management skills (e.g., planning, decision-making), and leadership styles (e.g., transformational leadership, servant leadership).

But, there is more to what leaders do than the traits that they possess. The CAPS framework suggests that in any given situation, only a select number of leaders' personality system elements are active. What elements are activated depends on the situational features present and how such features are interpreted. The CAPS framework assumes that similar personality system elements will become activated across situations that share similar cues and interpretations, and different personality system elements will become activated across situations that possess different cues and unique interpretations (Mischel & Shoda, 1995, 2008). This explains why a leader might process and behave differently across situations.

This activation of personality system elements based upon the cues of the situation is managed by what the CAPS framework calls the encoding process. The encoding process has three primary jobs (Mischel & Shoda, 1995, 2008). First, because our brains cannot effectively process all the information present in the situations we encounter, we rely on our encoding process to attend to specific cues deemed most vital. Second, our encoding process interprets these cues in unique ways. Third, based upon the cues absorbed and how they are interpreted, the encoding process activates the elements of the personality system that will best meet the perceived demands of the situation.

It is important to note that encoding processes not only function largely subconsciously, but also often develop into patterns that cause leaders to interpret cues consistently (Bargh, 1997; Mischel & Shoda, 2008). These patterns can be thought of as mindsets: the mental lenses that selectively

organize and encode information, thereby orienting an individual toward a unique way of understanding an experience that guides their actions and responses (Crum et al., 2013; Heslin, Keating, & Minbashian, 2019).

When we understand that mindsets operate as leaders' encoding processes, it becomes easy to see that leaders' mindsets are the most foundational element for why they do what they do. Leaders' mindsets explain why two different leaders can experience the same situation, but interpret it and navigate through it in completely different ways. Effectively, leaders' mindsets dispose leaders to certain ways of processing and operating depending upon the mindset they have. Thus, when leadership development efforts overlook mindsets, they are overlooking the most foundational element of the leaders' effectiveness.

### 3. What mindsets do leaders need to develop to process and operate more effectively?

Fortunately, mindsets have been studied for over 30 years across multiple domains utilizing multiple labels such as encoding strategies (Mischel & Shoda, 1995), orientations (Elliot & McGregor, 2001), implicit theories (Dweck, 2006), and focuses (Higgins, 1998). Across this research, researchers have repeatedly demonstrated that individuals' mindsets predictably dispose them to specific ways of processing information (e.g., self-regulation, attitudes, decision-making) and operating based on this information (e.g., goal fulfillment, behaviors, performance).

The majority of mindset research has largely revolved around four distinct sets of mindsets: fixed and growth mindsets, learning and performance goal orientations, deliberative and implemental mindsets, and prevention and promotion mindsets. Across the decades of research on these mindsets, three broad findings illuminate the importance of focusing on mindsets for developing leaders. First, as has been discussed, mindsets are foundational to and activate how leaders process and operate. Second, across each set of mindsets, there is clear evidence that one mindset allows leaders to process and operate much more effectively than the other(s). Third, mindsets are something that can be changed even through relatively small interventions. In all, mindsets are an overlooked yet ideal personal attribute to focus

**Table 1. Research summary of the impact of fixed and growth mindsets on leaders' processing and operations**

Fixed mindset	Growth mindset
<ul style="list-style-type: none"> <li>• Leaders do not believe that they can improve their abilities, talents, and intelligence</li> <li>• Self-worth connected to demonstrating abilities, talents, and intelligence</li> <li>• Internalize failure</li> <li>• Avoid challenges and situations that require effort</li> <li>• More likely to engage in fundamental attribution error</li> <li>• More confident in their attributions and less likely to change those attributions</li> <li>• More likely to endorse punishment</li> <li>• More likely to view others' feedback as being self-defeating</li> <li>• Less willing to receive coaching related to underperformance</li> <li>• Less likely to engage in efforts to develop followers</li> <li>• Less likely to demonstrate leadership confidence</li> </ul>	<ul style="list-style-type: none"> <li>• Leaders do believe that they can improve their abilities, talents, and intelligence</li> <li>• Self-worth connected to personal growth and development</li> <li>• Sees failure as an opportunity to learn and grow</li> <li>• Willing to approach challenges and situations that require effort</li> <li>• Less likely to engage in fundamental attribution error</li> <li>• Less confident in their attributions and more likely to change those attributions</li> <li>• Less likely to endorse punishment</li> <li>• Less likely to view others' feedback as being self-defeating</li> <li>• More willing to receive coaching related to underperformance</li> <li>• More likely to engage in efforts to develop followers</li> <li>• More likely to demonstrate leadership confidence</li> </ul>

on to improve leaders' effectiveness. The key proposition is this: If we can help leaders develop specific positive mindsets, their information processing and operation can change, leading to improvements in their effectiveness.

We next describe each of the different sets of mindsets and summarize the research findings of each to highlight their implications for leadership effectiveness.

### 3.1. Fixed and growth mindsets

Fixed and growth mindsets revolve around leaders' implicit beliefs about the malleability of their own and others' abilities, talents, and intelligence (Dweck, 2012). Specifically, leaders who believe that individuals can change and improve their abilities, talents, and intelligence have a growth mindset, and those who believe that individuals cannot change and improve their abilities, talents, and intelligence have a fixed mindset. These beliefs, which generally are held subconsciously, dictate the way leaders ascribe meaning to the situations they encounter and prime a range of processing and behavioral dispositions, largely

outside of one's awareness (Burnette et al., 2013; Heslin & Keating, 2017).

The primary reason why fixed and growth mindsets play such a foundational role in leaders' processing and day-to-day operation is because they become the lens by which they manage their self-worth. As self-worth is important to all individuals, depending on the mindsets they maintain predicts how they process information and behave to protect or enhance their self-worth.

When leaders have a fixed mindset and believe that they cannot change, they are left to interpret failure as though they are a failure and of little worth (Burnette et al., 2013; Dweck, 2012; Mangels, Butterfield, Lamb, Good, & Dweck, 2006). Thus, those with a fixed mindset are continually on guard for situations where they are likely to fail, exposing and/or reinforcing their lack of worth. Thus, leaders with a fixed mindset are nonconsciously vigilant about protecting their self-image and simultaneously inclined to approach situations in which they believe they can succeed while avoiding situations that may lead to failure, such as challenges or situations that require effort

(Blackwell, Trzesniewski, & Dweck, 2007; Dweck, 2012; Hong, Chiu, Dweck, Lin, & Wan, 1999).

Conversely, when leaders have a growth mindset and believe they can improve their abilities, talents, and intelligence, their self-worth is connected less to guarding against potential affronts to their self-worth (i.e., challenges and failure) and more toward their growth and development (Dweck, 2012; Mangels et al., 2006). Believing they can change and that doing so enhances their self-worth, they are inclined to approach challenging situations because they recognize that it is through challenges and effort that they can best grow to enhance their self-worth (Blackwell et al., 2007; Dweck, 2012; Hong et al., 1999).

The implications of these mindsets for effective leadership do not stop there. Researchers have found that one's implicit beliefs about their own or others' malleability influences how one perceives and works with others. Specifically, research indicates that when compared to those with a fixed mindset, those with a growth mindset are:

- More likely to believe that others' poor behavior is driven by external factors as opposed to internal factors (Erdley & Dweck, 1993; Molden & Dweck, 2006);
- Less confident in their attributions of others and more likely to change those attributions (Erdley & Dweck, 1993);
- Less likely to endorse punishment (Erdley & Dweck, 1993);
- Less likely to view feedback from others as self-defeating (Mangels et al., 2006);
- More willing to receive coaching related to underperformance (Dweck, 2012; Nussbaum & Dweck, 2008);
- More likely to engage in efforts to develop their own followers (Heslin, Vandewalle, & Latham, 2006);
- Provide more accurate employee performance appraisals (Heslin, Latham, & Vandewalle, 2005); and
- More procedurally just (Heslin & Vandewalle, 2011).

Table 1 features a summary of the impact of fixed and growth mindsets on leaders' processing and operations.

### 3.2. Goal orientations

The basic premise of goal orientations is that leaders, largely nonconsciously, tend to possess a specific goal preference when setting and seeking to achieve their goals (Vandewalle et al., 2019). Goal orientation researchers largely agree that four different goal orientations exist along two dimensions. The first and primary dimension represents the difference between a learning and a performance goal orientation. A learning orientation involves being motivated toward increasing one's competence and mastering something new. A performance orientation involves being motivated toward gaining favorable judgments about one's competence. The second dimension represents the difference between approaching desirable events or possibilities (i.e., approach) and avoiding undesirable events or possibilities (i.e., avoid; Elliot, 1999).

Putting the two dimensions together, four goal orientations emerge (Elliot, 1999; Vandewalle et al., 2019):

- *Learning-approach* — The desire to develop skills and abilities, advance one's learning, and master a task;
- *Learning-avoid* — The desire to avoid losing one's skills and abilities, forgetting what one has learned, or leaving a task unmastered;
- *Performance-approach* — The desire to prove one's competence and to gain favorable judgments about it; and
- *Performance-avoid* — The desire to avoid the disproving of one's competence and to avoid negative judgments about it.

While current goal orientation researchers largely agree on these four goal orientations, most of the research has only looked at three of the goal orientations with consistent results: learning-approach (identified hereafter simply as "learning"), performance-approach, and performance-avoid (Vandewalle et al., 2019). Learning-avoid has not received much attention because of prior research precedent and because relatively few fall into that quadrant.

Individuals' goal orientations shape their personal definition of success (Payne, Youngcourt, & Beaubien, 2007). Success for those with a learning orientation is enhancing self-perceptions of their competence (i.e., developing one's self). Success for those with a performance-approach

**Table 2. Research summary of the impact of goal orientations on leaders' processing and operations**

Performance-avoid orientation	Performance-approach orientation	Learning orientation
<ul style="list-style-type: none"> <li>• Leaders are primarily focused on avoiding the disproving of their competence and avoiding negative judgments about it</li> <li>• Success = avoiding being seen as incompetent</li> <li>• Sets lower goals and engages in less effort to achieve them</li> <li>• Engages in surface-level learning strategies</li> <li>• Avoids and less receptive to feedback</li> <li>• More likely to engage in counterproductive behaviors</li> <li>• Less successful at adapting to change</li> <li>• Engages in lower levels of performance</li> <li>• Less likely to emerge as a leader and behave less effectively in such a position</li> </ul>	<ul style="list-style-type: none"> <li>• Leaders are primarily focused on proving their competence and gaining favorable judgments about it</li> <li>• Success = being viewed as competent by others</li> <li>• Sets lower goals and engages in less effort to achieve them</li> <li>• Engages in surface-level learning strategies</li> <li>• Avoids and less receptive to feedback</li> <li>• More likely to engage in counterproductive behaviors</li> <li>• Less successful at adapting to change</li> <li>• Engages in lower levels of performance</li> <li>• Less likely to emerge as a leader and behave less effectively in such a position</li> </ul>	<ul style="list-style-type: none"> <li>• Leaders are primarily focused on developing skills and abilities, advancing one's learning, and mastering tasks</li> <li>• Success = developing one's self</li> <li>• Sets higher goals and engages in greater effort to achieve them</li> <li>• Engages in deep-level learning strategies</li> <li>• Seeks out and more receptive to feedback</li> <li>• Less likely to engage in counterproductive behaviors</li> <li>• More successful at adapting to change</li> <li>• Engages in higher levels of performance</li> <li>• More likely to emerge as a leader and behave more effectively in such a position</li> </ul>

orientation means being seen as competent by others, often in comparison to others (i.e., enhancing one's image relative to others). Success for those with a performance-avoid orientation is avoiding being seen as incompetent (i.e., protecting one's image). While there seems to be some similarity between fixed and growth mindsets and these goal orientations, meta-analytic correlations between the two sets have been quite small, suggesting that they are distinct mindsets (Payne et al., 2007; Vandewalle et al., 2019).

Decades of research on these three goal orientations have consistently found that how individuals define success causes them to process and operate at different levels of effectiveness. At the meta-analytic level, research indicates that (1) learning goal orientation generally has positive relationships with self-regulatory processes, (2) performance-approach goal orientation generally has nonsignificant relationships with self-

regulatory processes, and (3) performance-avoid goal orientation generally has negative relationships with self-regulatory processes (Cellar et al., 2011; Payne et al., 2007; Vandewalle et al., 2019).

More specifically, research reveals that the leadership implications of having a learning goal orientation, compared to having either of the performance orientations, include:

- Setting higher goals and engaging in greater effort to achieve them (Payne et al., 2007);
- Engaging in deeper-level learning strategies (Simons, Dewitte, & Lens, 2004);
- Seeking out and being more receptive to feedback (Payne et al., 2007; Vandewalle et al., 2019);
- Being less likely to engage in counterproductive

**Table 3. Research summary of the impact of implemental and deliberative mindsets on leaders' processing and operations**

Implemental mindset	Deliberative mindset
<ul style="list-style-type: none"> <li>• Primarily focused on information to help implement their decisions</li> <li>• Closed to new and different ideas</li> <li>• More biased</li> <li>• More prone to illusions of invulnerability</li> <li>• Less accurate at perceiving probabilities for success</li> <li>• More likely to develop an extreme position</li> <li>• Less willing to change one's mind in light of new ideas</li> <li>• Overall, worse at making decisions</li> </ul>	<ul style="list-style-type: none"> <li>• Primarily focused on information that will help them make better goal decisions</li> <li>• More open to information</li> <li>• Less biased</li> <li>• Less prone to illusions of invulnerability</li> <li>• More accurate at perceiving probabilities for success</li> <li>• Less likely to develop an extreme position</li> <li>• More willing to change one's mind in light of new ideas</li> <li>• Overall, better at making decisions</li> </ul>

behaviors (e.g., cheating; Van Yperen, Hamstra, & Van der Klauw, 2011);

- Being more successful at adapting to change (Vandewalle et al., 2019);
- Engaging in higher levels of performance (Van Yperen, Blaga, & Postmes, 2014); and
- Being more likely to emerge as a leader and behave more effectively in such a position (Dragoni, Tesluk, Russell, & Oh, 2009; Sosik, Godshalk, & Yammarino, 2004).

These findings are summarized in Table 2.

In summary, the research reveals that leaders with a learning orientation are much more inclined to add substantive value to themselves and those they lead and serve, whereas leaders with a performance orientation are less concerned about providing value and more concerned about maintaining a certain self-image. We thus have every reason to suspect leaders with a learning orientation will be more effective than leaders with a performance orientation.

### 3.3. Implemental and deliberative mindsets

Implemental and deliberative mindsets are mental lenses that dictate how receptive to information individuals are (Gollwitzer, 2012). Specifically, when individuals possess an implemental mindset, they cognitively are tuned to information that will help them implement their decisions. This is a closed-minded condition where individuals are generally only open to information that supports their position or ideas. On the other hand, when individuals possess a deliberative mindset, they are cognitively tuned and open to information that will help them make better goal decisions overall. This is an open-minded condition where individuals are focused on seeking out truth and thinking optimally more than efficiently.

Organizational leaders, by nature of their position in the organizational hierarchy, are tasked with making decisions that influence those that fall below them in the hierarchy. Thus, it stands to reason that the effectiveness of their leadership over time is largely contingent on their decision-making abilities. To make the most effective decisions, leaders must (1) be open to any available information that might inform their decisions, (2) avoid prematurely dismissing relevant information, and (3) be willing to change their mind in light of new ideas (Carmeli, Friedman, & Tishler,

**Table 4. Research summary of the impact of prevention and promotion mindsets on leaders' processing and operations**

Prevention mindset	Promotion mindset
<ul style="list-style-type: none"> <li>• Attuned to seek to minimize pain and avoid problems and losses</li> <li>• Sensitive to cues that indicate the likelihood of negative affect, safety, and overall risk</li> <li>• Tend to be focused on fulfilling duties and obligations, maintaining an acceptable standard of performance, limiting mistakes and errors, and maintaining the status quo</li> <li>• Demonstrate lower levels of job performance, organizational citizenship behaviors, and innovative performance</li> <li>• More likely to engage in counterproductive work behaviors</li> <li>• Less likely to have safety incidents</li> </ul>	<ul style="list-style-type: none"> <li>• Attuned to maximizing pleasure and seeking wins, gains, and accomplishments</li> <li>• Sensitive to cues that indicate the likelihood of positive affect, growth, and accomplishment</li> <li>• Tend to be focused on ensuring they best fulfill their goals and aspirations, advancing and making progress, and attaining their ideal self</li> <li>• Demonstrate higher levels of job performance, organizational citizenship behaviors, and innovative performance</li> <li>• Less likely to engage in counterproductive work behaviors</li> <li>• More likely to have safety incidents</li> </ul>

2013; Fujita, Gollwitzer, & Oettingen, 2007; Gollwitzer, 2012).

Across the body of deliberative and implemental mindset research, researchers have consistently found that those with deliberative mindsets are more open to information, less biased, and more willing to change one's mind in light of new ideas, and are thus more likely to be better decision makers and more effective leaders (Fujita et al., 2007; Gollwitzer, 2012).

This has been demonstrated in multiple ways. First, researchers have found that after selecting between options, those with implemental mindsets view the non-selected alternatives more negatively than do those with a deliberative mindset, meaning that those individuals with a deliberative mindset remain more open to the value of alternative ideas (Harmon-Jones & Harmon-Jones, 2002). Second, researchers have found that those with an implemental mindset are more likely to engage in self-serving biases, leaving them more prone to illusions of invulnerability and less-accurate perceivers of their probabilities for success (Gagné & Lydon, 2004; Gollwitzer, 2012; Taylor & Gollwitzer, 1995). Third, researchers have found that those with an implemental mindset are more likely to develop an extreme position, particularly around a course of action they are implementing. But interestingly, these effects are not only associated with the decision at hand but create a frame of mind that carries over to issues irrelevant to one's immediate goal concern (Henderson, de Liver, & Gollwitzer, 2008).

Given the responsibility and position of organizational leaders, it is reasonable to suggest that their decisions affect the trajectory and success of their organizations as well as the quality of their employees' workplace experience. Thus, it is paramount that they make the best possible decisions. The research on deliberative and implemental mindsets overwhelmingly suggests that those who have deliberative mindsets and are focused on finding truth and thinking optimally will make better decisions and be more effective leaders than those who have implemental mindsets and concern themselves primarily with only the information that confirms that their decisions. A summary of the implications of these two mindsets can be found in Table 3.

### 3.4. Prevention and promotion mindsets

Prevention and promotion mindsets represent two different goal-striving strategies (Lanaj et al., 2012). When leaders have a prevention mindset,



they are mentally attuned to minimize pain, generally through a focus on avoiding problems and losses (Johnson, Smith, Wallace, Hill, & Baron, 2015; Shah, Higgins, & Friedman, 1998). When leaders have a promotion mindset, they are mentally attuned to maximize pleasure, generally through a focus on winning, gaining, and accomplishing (Johnson et al., 2015; Shah et al., 1998).

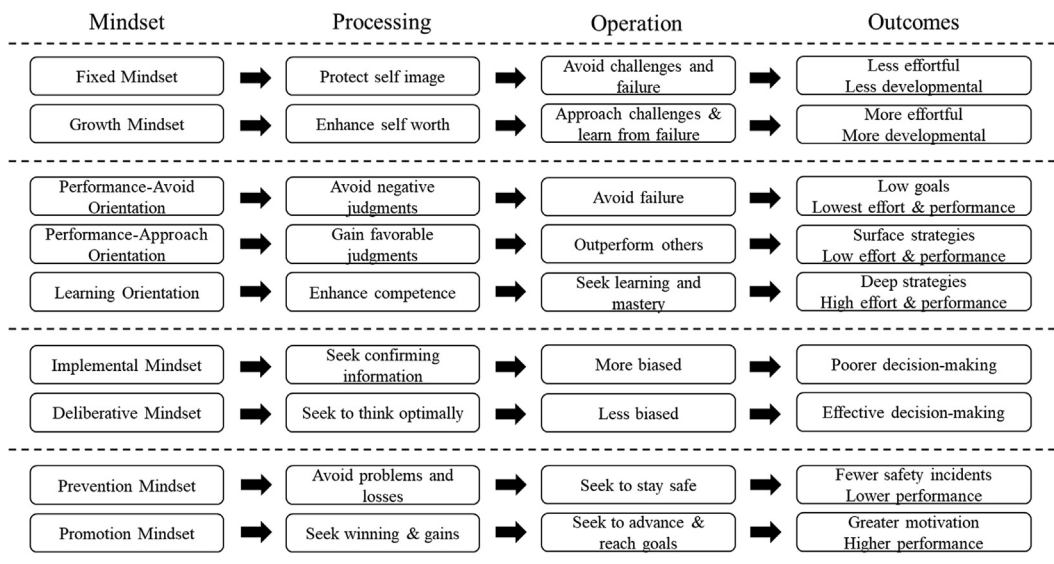
If we have two different leaders, one with a prevention mindset and the other with a promotion mindset, decades of research have found that these two leaders will operate very differently as they take in and process distinct information to make decisions, and ultimately, they will achieve different levels of effectiveness and success. Such differences are summarized in Table 4.

A leader with a prevention mindset is more sensitive to cues that indicate the likelihood of experiencing negative affect, safety concerns, or an overall risk to personal or organizational security (Johnson et al., 2015; Kark & Van Dijk, 2007). Being sensitive to such cues, the leader may make decisions that ensure they fulfill their duties and obligations, maintain an acceptable standard of performance, limit mistakes and errors, and maintain the status quo (Johnson et al., 2015; Kark & Van Dijk, 2007). This line of thinking generally causes the leader to operate such that they do the minimum required in order to not let others down. A meta-analysis found that a prevention mindset does not relate to job performance, organizational citizenship behaviors, or innovative performance

(Lanaj et al., 2012). In fact, the only positive meta-analytic performance-related finding associated with having a prevention mindset is a lower safety incident rate. And interestingly, Lanaj et al. (2012) found a positive relationship between a prevention mindset and counterproductive work behaviors.

A leader with a promotion mindset, on the other hand, is sensitive to cues that indicate the likelihood of experiencing positive effects, growth, and accomplishment (Johnson et al., 2015; Kark & Van Dijk, 2007). Being sensitive to such cues, the leader will be inclined to make decisions that ensure they best fulfill their goals and aspirations, make forward progress, and attain their ideal self (Higgins, 1997). Rather than interpret risk as something to avoid, they interpret it as being a necessary part of the process of progress and advancement. This line of thinking generally causes the leader to operate such that they do as much as possible in order to accomplish their goals. Lanaj et al. (2012) meta-analysis revealed that a leader with a promotion mindset tends to set goals that are more challenging and exhibit greater persistence, task performance, organizational citizenship behaviors, and innovative performance. Further studies also reveal that when compared to a prevention-minded leader, a leader with a promotion mindset will be viewed as more transformational, better able to effectively navigate change, and more strategic when it comes to decision making (Johnson et al., 2015;

Figure 2. Conceptual summary of downstream implications of individual mindsets



Kammerlander, Burger, Fust, & Fueglistaller, 2015; Kark, Van Dijk, & Vashdi, 2018; Kark & Van Dijk, 2007, 2019).

While it may seem justifiable for leaders to adopt a prevention mindset in an effort to avoid problems and mitigate risk, there is overwhelming empirical evidence suggesting that having a promotion mindset will induce leaders to process and operate more effectively. Indeed, in a study of small business CEOs, Wallace, Little, Hill, and Ridge (2010) found a positive relationship between CEO promotion mindset and firm performance and a negative relationship between CEO prevention mindset and firm performance.

## 4. Implications for leadership

Thus far, we have tried to articulate several main points. First, how leaders encode the situations they encounter is dictated by their mindsets. Second, leaders' mindsets impact how they process and operate. Based upon the information encoded and interpreted, leaders' mindsets activate different elements of their personality system to help them best navigate the situations they encounter. Third, we have summarized over 30 years of research on four different sets of mindsets demonstrating that leaders who possess more positive mindsets (i.e., growth mindset, learning orientation, deliberative mindset, and promotion mindset) will process and operate more effectively than if they possess more negative mindsets (i.e., fixed mindset, performance orientation, implemental mindset, and prevention mindset). Figure 2 concisely summarizes this research and reinforces that across contexts and situations, there is general agreement concerning how each of the mindsets correlates with certain outcomes.

We believe some important nuances in Figure 2 warrant discussion. The elements associated with the positive mindsets in the processing column are focused on "the means," whereas the processing elements associated with the negative mindsets are focused on "the ends." This observation suggests that when leaders possess more positive mindsets, they are more inclined to focus less on the outcomes, and focus more on the processes that lead to the outcomes. This may be one primary reason why having these mindsets leads to behaviors that are more positive and outcomes.

Additionally, we feel it is important to note that much of the mindset research we have reviewed focuses on the benefits we anticipate the leader to

personally experience as a result of possessing the more positive mindsets (e.g., improved focus, deeper learning, less bias in decision making, and higher levels of performance). But, it is also necessary to point out that beyond the personal benefits that leaders receive, there are also positive indirect benefits and implications for their organizations and the employees they lead.

Understanding the foundational role mindsets play in leaders' processing, operation, and overall effectiveness has significant implications for leadership development. It provides both leadership developers and leaders themselves with a more foundational element to focus on for leadership development. We discuss both perspectives next.

### 4.1. How leadership developers can shift leaders' mindsets

Traditionally, if leadership developers wanted to help organizational leaders to become more transformational, they would focus on either enhancing leaders' personality system (i.e., personality traits, self-regulatory strategies, talents, characteristics) or on helping them develop specific skills designed to directly improve the quality and quantity of their transformational behaviors. They would overlook the role of mindsets in the leadership process.

While focusing on leaders' personality system or their behaviors can be beneficial, it is likely limited for the primary reason that leaders' prevailing mindsets may continually run counter to and resist the training being provided. For example, consider a leader who has a fixed mindset (unknown to the developer). If the leadership developer provides training designed to help the leader provide greater individualized consideration (an aspect of transformational leadership), this will likely have some positive benefits. Yet, if that leader continues to see others as being unable to change and develop, that leader is going to have little motivation to provide that individualized consideration because, fundamentally, their fixed mindset does not allow them to believe that such individualized consideration will even make a difference. But, if the leadership developer can first help the leader develop more of a growth mindset, that leader is going to respond more favorably to any training around providing greater individualized consideration because they will foundationally believe that those they are developing can actually be developed.

This leads to the question: How can leadership developers help leaders develop more positive mindsets? The good news is that many studies have demonstrated that mindsets can be shifted with relatively simple manipulations, including having participants read fictional studies, (Kray & Haselhuhn, 2007), write two paragraphs (Kilduff & Galinsky, 2013), watch a three-minute video (Crum et al., 2013), imagine responses to situations (Gollwitzer, 1993; Mischel & Shoda, 2008) or engage in a training (Blackwell et al., 2007; Heslin et al., 2005; Yeager et al., 2019). Of course, single manipulations are unlikely to lead to lasting change. Such manipulations need to be consistently repeated, and the prevailing culture of the organization needs to reinforce the mindsets that are being developed. For example, if a leadership developer is helping leaders develop a growth mindset, but the organization culture sees failure as being fatal for an employee's reputation, the leadership developer's efforts are not likely to translate into the sought-after mindset shift.

#### 4.2. How leaders can shift their own mindsets

One of the most powerful aspects of having leaders focus on their mindsets to develop their effectiveness is that it will help them to become more self-aware and mindful because it will cause them to stand apart from themselves to consider their underlying mindsets that generally operate at a subconscious level. By enhancing leaders' ability to *look at* what they typically *look through*, it provides them with the capacity to become more conscious of their typically subconscious mindsets, empowering them with the opportunity to be more intentional about the information they take in and how they interpret it.

For example, consider a leader, who has a fixed mindset. Until learning about fixed and growth mindsets, it is likely that the leader inherently believes that the lens she is using is ideal or even optimal, and is unable to see how her fixed mindset may be sabotaging her effectiveness. But, upon learning about fixed and growth mindsets, the leader can (1) become more conscious of her previously subconscious mindset, (2) understand that she may not be seeing her situations in the most effective way (e.g., believing her employees cannot be developed), (3) identify more optimal ways of seeing the situations she encounters (e.g., employees can be developed), and (4) intentionally choose how she responds to opportunities for development (e.g., "I will devote greater effort to develop my employees"). Enhanced richness

around these steps is provided in Heslin and Keating (2017), as well as Heslin, Keating, and Ashford (2020).

For leaders to go through the process of actually shifting their mindsets, certain milestones and practices need to be met and engaged in. First, leaders should learn about and open themselves up to the different mindsets that exist. It is helpful to have specific labels for each mindset, and it is essential for leaders to understand the differences between each mindset in a specific set as well as how they generally lead individuals to process and operate differently. Second, leaders should engage in interventions designed to activate and strengthen the positive mindsets. As mentioned previously, prior research has shown that reading, journaling, watching videos, or going through trainings all help with shifting mindsets. While such interventions have been found to have short-term effects, if leaders want long-term shifts, they must develop the habit of engaging in these interventions repeatedly over time. Finally, leaders need to be mindful of the situations and contexts they put themselves in. They need to ensure that the situation in which they operate is conducive to and supports the mindset changes they want to make.

#### 5. Mindsets are foundational to leadership effectiveness

Until now, the leadership domain has largely overlooked mindsets. Yet, acknowledging this oversight is helpful because it opens the door to expand our leadership development efforts to include these personal attributes that are foundational to how leaders process and operate, and ultimately to how effective they are. We hope that in this article, we have been able to effectively (1) communicate what mindsets are and their role in leadership effectiveness, and (2) identify specific mindsets that have important implications for such effectiveness, along with sound and considerable supporting evidence.

If leadership developers can incorporate mindsets into their development efforts, we should expect that they will be more effective at developing leaders. Further, if leaders can learn more about their mindsets, the foundational role they play in how they process and operate, and the different sets of mindsets, we should expect that their self-awareness and mindfulness will increase, which will allow them to more intentionally shift their mindsets (toward more growth, learning, deliberative, and promotion mindsets) to process,

operate, and perform more effectively. In all, decades of research evidence on mindsets suggests that we will be more effective at developing leaders if we include mindsets in our leadership development efforts.

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