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**EFFECTS OF GROWTH AND FIXED MINDSET
ON LEADERS' BEHAVIOR DURING
INTERPERSONAL INTERACTIONS**

A Research Project

**Presented to the Faculty of
The Graziadio Business School
Pepperdine University**

**In Partial Fulfillment
of the Requirements for the Degree**

Master of Science

**In
Organization Development**

by

Anna Campbell

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This research project, completed by

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under the guidance of the Faculty Committee and approved by its members, has been submitted to and accepted by the faculty of The Graziadio Business School in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE
IN ORGANIZATION DEVELOPMENT

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Abstract

Growth mindset, the belief that traits are changeable, is a concept that has impacted the field of education and has recently gained a foothold in the world of business. This mixed methods study sought to better understand how high-level leaders' internal growth or fixed mindsets affect their behavior in interpersonal interactions with others. 12 directors and vice presidents participated in a self-assessment and interviews to ascertain their general mindsets in five domains and their experience of workplace interactions. The study found that leaders' mindsets affect their interactions with others. The study also found that leaders who scored as having growth mindset may still experience episodes of situational fixed mindset that may detract from their effectiveness.

Keywords: Growth Mindset, Fixed Mindset, Leader, Leadership, Effectiveness, Interpersonal, Interaction

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Chapter 1: Introduction

A topic that has recently captivated the business world is that of “growth mindset,” a term coined by Dweck (2006) in *Mindset*, based on her research of attribution theory and its effects on elementary through college-aged students. Her work suggests that there is a foundational set of mindsets – growth and fixed – that underpin our most basic behavior and responses to our environment and experiences. Researchers and business leaders are now asking how these concepts influence the work we do each day and in the endeavors of organizations. When Satya Nadella took over as the CEO of Microsoft in 2014, he had just read Dweck’s (2006) book and was so struck by the idea of growth mindset that he made it the central organizing principle of the culture change he brought to Microsoft, which tripled Microsoft’s worth in just four years (Vander Ark, 2018). Nadella led the organization in incorporating growth mindset principles in all areas of the business, including performance evaluations (Derler & Weller, 2018) and his own responses to employees’ failure (della Cava, 2017). Even the official statement on Microsoft’s culture states “We fundamentally believe that we need a growth mindset culture. This starts with the belief that everyone can grow and develop; potential is nurtured, not predetermined; and anyone can change their mindset” (Microsoft, n.d., Our Culture section).

Growth mindset – the belief that your basic qualities, such as intelligence and talent, are changeable – is a seemingly small idea with some potentially big implications (Dweck, 2006). According to Dweck (2006), people with a growth mindset see challenges as opportunities, do not take things personally, and believe that they can grow their skills and abilities with the right combination of hard work and help (Dweck, 2006).

They are also able to be open-minded to new or different information, and view setbacks as a part of growth (Dweck, 2006). Absence of a growth mindset does not necessarily equal neutrality – on the other side of the coin is a fixed mindset. The demonstrated effects of living from a fixed mindset include viewing setbacks as indicators of natural ability, or lack thereof (Dweck, 2006). “Believing that your qualities are carved in stone... creates an urgency to prove yourself over and over” (Dweck, 2006, p. 6). This can lead to behaviors such as digging in and not being open to challenging information, ascribing others with fixed qualities, failing to change your opinion despite new data, and feeling threatened by constructive feedback (Dweck, 2006). Everyone has a mixture of both mindsets (Dweck, 2006). Even someone who is usually in a growth mindset can be triggered into a fixed mindset; for example, being confronted with someone who is better than them at something they pride themselves in (Dweck, 2006). We can also have different mindsets in different facets of our lives, as when someone believes that one can *learn* science, but one either does or does not have musical talent (Dweck, 2006).

An area of growing interest is the effect of mindsets on leadership as a growth mindset is beginning to be seen as an advantageous trait for business leaders (Craig, 2017). Since the concepts of growth and fixed mindsets affect how we receive and process information, judge others, and behave in response to those inputs (Dweck, 2006), they can have powerful implications for leadership in areas such as coaching and development, performance management, adaptability and change, emotional intelligence, collaboration, and advancement. Growth and fixed mindsets may also affect whole organizations, with potential links to adaptability and agility, mergers and acquisitions, faster response times, service recovery, change management, and success in non-

traditional organizational structures such as flat, ambidextrous, or networked organizations. All of these areas require a willingness to be vulnerable, learn from mistakes, share information, and tackle challenges, rather than defining failure as defeat – all characteristics of growth mindset.

As an example, take the topic of collaboration and the sharing of information – including the classic struggles of breaking down silos, encouraging cross-functional communication, and balancing priorities across paradox to make decisions about the use of organizational resources. Breaking down silos requires cooperation across functions and the free sharing of information, both of which may be difficult to do if the people involved feel that their worth and competency are threatened by doing so – symptoms of a fixed mindset (Dweck, 2006). Collaboration requires the sharing of ideas and the ability to build synergistically from diverse perspectives. Similarly, “innovation is triggered by cross-pollination. Creative breakthroughs occur most often when ideas collide and combine” (Kinsey Goman, 2017, Promoting Diversity section, para. 2). These behaviors, too, can be hampered by fixed mindset.

Having a growth mindset, or at least understanding and managing one’s mindset, similar to how we think of emotional intelligence (Goleman, 1995), appears to lead to foundational behaviors that enable what might be called ‘best practice’ business and leadership qualities: being authentic, developing one’s employees, collaboration, delegation, team building, and effective interpersonal relationships. Leaders are the lynchpins of organizational success, but many leaders likely have fixed mindsets – high achievers whose innate intelligence, talent, and drive have gotten them to where they are, but also leave them fearing failure (Dweck, 2006). And, many of these high achievers

may not realize that they have a fixed mindset, or sometimes have a “triggered” fixed mindset. Accomplished, well-intentioned, successful professionals and leaders may assume, due to their achievements, that they have a growth mindset, and that their growth mindset is all-encompassing and unflappable. They may find themselves baffled as to why they – maybe uncharacteristically – lash out at a colleague, shut down emotionally, hesitate to offer their professional opinion in important meetings, or dig in during high-stakes discussions rather than hearing others’ points of view. In order for leaders to be truly effective in leading organizations, they must be able to communicate well, adapt with and lead change, make wise decisions regarding resources and strategy, and collaborate with their colleagues and teams for the organization to succeed. The characteristics of a fixed mindset run counter to all of these measures of effectiveness, and in fact can significantly undermine an individual’s otherwise effective behavior (Dweck, 2006).

Statement of Problem

Building on Dweck’s and others’ cumulative research into growth and fixed mindsets, implicit person theory, and other aspects of attribution theory in educational settings, there is a growing body of work exploring these effects in the adult professional landscape (e.g. Heslin, Latham, & VandeWalle, 2005; Kam, Risavy, Perunovic, & Plant, 2012; Özduran & Tanova, 2016). However, the existing research has focused largely on the relationship between leaders and their employees, as well as the effects on entire organizations, with little research on the effects on the leaders themselves and the repercussions to their areas of influence. The significance of the theory around growth mindset and the potentially negative effects of fixed mindset is magnified when applied

to leaders, and especially high-level leaders, given the important role they play within their organizations and communities. This study examines how these powerful concepts affect the talented and successful people we all trust to lead us.

Purpose

The purpose of this research was to better understand how high-level leaders' internal growth or fixed mindsets affect their behavior in interpersonal interactions with others. Specifically, this study examined the following question: What is the effect of a leader's mindset on their interactions with others?

Significance of Study

It is widely accepted that good leadership is a differentiating factor in the success of organizations. As such, the study of leadership is prolific as individuals and organizations seek to maximize this critical resource. If effective leadership is key to organizational performance, it only grows more important the more complex the environment. In today's rapidly-evolving business world in which change is a constant, it seems that the way forward is "to grow our capacity as human beings and leaders" (Inam, 2017, para. 4) in order to be flexible and adaptable in response to the challenges we face. If there are techniques, styles, awareness or behavior changes that can benefit today's leaders, we should not leave them lying on the table. The concept of growth mindset is one such resource: a simple idea with far-reaching effects that may empower a leader to be more authentically confident, as well as more effective in their interactions and endeavors. Further, if the leader has a fixed mindset (and may or may not know it), or unchecked situational fixed mindset, their behavior might actually be counterproductive to their efforts and to the qualities that contribute to a healthy organization. As the

research in growth and fixed mindset grows in the world of business, it is important to understand how mindsets affect leaders, as this understanding may affect individual leaders and their spheres of influence—in addition to their direct impact on their employees. Leaders, especially high-level leaders, influence their organizations in many ways besides the direct leadership of their teams. This study begins deepening the understanding of these subtle, yet potentially impactful, nuances of growth and fixed mindsets.

Organization of Study

This chapter provided the background of the study, as well as an outline of the purpose and problem to be addressed by the study. Chapter 2, the literature review, illuminates further the history of the study of growth and fixed mindsets. Chapter 3 outlines the design of the study; Chapter 4 discusses the data analysis and findings. Chapter 5 examines the summary, conclusions, and recommendations.

Chapter 2: Review of Literature

The purpose of this research is to better understand how high-level leaders' internal growth or fixed mindsets affect their behavior in interpersonal interactions with others. This literature review provides the history and trajectory of growth-mindset research. The chapter first examines the general concept of growth mindset and the historical progression of research in that area, which has predominantly been in educational settings. Second, it reviews the more recent application of growth mindset theory to the workplace. Finally, this chapter summarizes these areas and integrates them into the supporting structure and reasoning for this study.

Definitions

The following operational definitions will be used in this study:

Growth mindset. "...the belief that your basic qualities are things you can cultivate through your efforts, your strategies, and help from others" (Dweck, 2006, p. 7).

Fixed mindset. The belief that your basic qualities are innate and not changeable.

High-level leader. A leader at the level of director or above; does not necessitate having direct reports.

Growth Mindset

Theories about how and why people learn, how people view success and failure, and what factors contribute to engagement and success in the workplace abound. This study focuses on the work of Carol S. Dweck, in the area of growth and fixed mindset. Dweck's work has spanned nearly five decades, beginning in the early 1970s examining learned helplessness in children (Dweck & Reppucci, 1973). Dweck's (1972) dissertation

was completed on the same topic. Until the early 2000s, the predominant application of her research has been with students, with the bulk being dedicated to elementary-aged children, though it has also extended to high school and college. More recently, research built on the foundation of Dweck's work has begun in the workplace to determine how growth and fixed mindsets affect organizational constructs such as manager/employee relationships (Gregory & Levy, 2011; Kam et al., 2012; Zingoni & Corey, 2017), performance evaluations (Heslin & VandeWalle, 2011), and employee engagement (Caniëls, Semeijn, & Renders, 2018). Oposing views regarding implicit beliefs about the changeability of traits have had several names throughout this arc of research. At the time of the first studies, it was called *helpless-oriented* vs. *mastery-oriented*. In the mid-1990s, the term *implicit person theory* began to be used in relation to learning and failure, and in the 2000s to workplace relationships and judgements. Eventually, Dweck labeled this phenomenon *growth mindset* (Dweck, 2006):

This *growth mindset* is based on the belief that your basic qualities are things you can cultivate through your efforts, your strategies, and help from others. Although people may differ in every which way—in their initial talents and aptitudes, interests, or temperaments—everyone can change and grow through application and experience. (p. 7)

This is compared to a *fixed mindset*, which is “believing that your qualities are carved in stone” (Dweck, 2006, p. 6) and are therefore not malleable (Dweck, 2006). The recent studies exploring mindsets in the workplace use the term *implicit person theory*, referring to how individuals view *others*; this is what the current study builds upon. Though the current study will refer to many studies which specifically investigated implicit person

theory, and language will be used to honor both sets of concepts and vocabulary (*fixed* and *growth mindset*, and *implicit person theory* and its subset of opposing views: *entity* (fixed) theory vs. *incremental* (malleable) theory of person traits), the predominant references to these concepts will use the terms *fixed mindset* and *growth mindset*.

As a note, *growth mindset* can also be thought of in relation to *false growth mindset*, which is a misunderstanding of the growth mindset concepts (Dweck, 2006). Some people think that encouraging or instilling growth mindset consists only of praising effort, which misinterprets the message of growth mindset: that change is possible through effort, trying new strategies, and asking for help; that effort and failure are not bad, but rather lead to learning (Dweck, 2006). The correct way to think of it is to praise the process but tie it to the outcome, or even just be interested in the process (Dweck, 2006). Another misunderstanding is that growth mindset just means ‘the stuff we’re already good at,’ leading people to think that if they are skilled or talented, they have a growth mindset – they may not comprehend that fixed mindset is a part of their world (Dweck, 2006). A third misunderstanding is that believing one can do anything is growth mindset. Without the accompanying belief that it takes growing your skills, making use of resources, and overcoming failure in order to ‘do anything,’ success is not a likely outcome (Dweck, 2006). Overall, it is important to understand growth mindset as a mentality that informs learning, strategizing, and resourcing in order to change one’s abilities, and that those abilities can indeed change and grow (Dweck, 2006).

Foundational Research in Growth and Fixed Mindsets

Dweck and Reppucci (1973) studied how children perform under failure conditions. Dweck and Reppucci (1973) found, based in expectancy theory, that learned

helplessness could be induced in children, even though their skill level was sufficient to the task. The children's expectations of their own performance affected their ability to perform. Interestingly, their performance was also dependent on the environment: when an adult under whose supervision they had repeatedly failed administered the test—though it was solvable, and the children had the skill to solve it—they behaved helplessly.

Subsequently, Dweck and her colleagues found that there was a complementary position to the helpless one: mastery orientation (Deiner & Dweck, 1978; Deiner & Dweck, 1980). Helpless-oriented children did worse and mastery-oriented children performed better under the same conditions. Helpless-oriented children also tended to attribute their failure to personal traits, whereas mastery-oriented children tended to look for ways to apply more effort or use different techniques and were not set back by the failure (Deiner & Dweck, 1978; Deiner & Dweck, 1980).

Further research examined whether and how boys and girls differ in their mastery orientation (Dweck & Bush, 1976; Dweck, Davidson, Nelson, & Enna, 1978; Dweck & Gilliard, 1975; Dweck, Goetz, & Strauss, 1980), how these mindsets affect social interactions (Goetz & Dweck, 1980), and children's social judgements relative to their implicit theories (Erdley & Dweck, 1993). Children's mindsets were shown to impact how well they responded to learning novel concepts in math when they had to overcome confusion, with mastery-oriented children faring much better (Licht & Dweck, 1984). Further, the manner in which children are praised as toddlers was shown to influence their later performance in school: children who were praised for process/effort were likelier to have a mastery-orientation, or growth mindset, later on (Gunderson,

Gripshover, Romero, Dweck, Goldin-Meadow, & Levine, 2013; Gunderson, Sorhagen, Gripshover, Dweck, Goldin-Meadow, & Levine, 2018).

Research built along this trajectory in varying situations and with different age groups, in the process expanding from expectancy theory into dispositional inference and person perception theory (Dweck, Hong, & Chui, 1993). Dweck, Hong, and Chui (1993) explained that implicit theories (beliefs that people hold) of various traits or attributes are linked to dispositional inferences. That is, those who hold an entity theory (referred to in the literature as entity theorists) believe that attributes are fixed and are likely to assign dispositional inference to those fixed attributes, making sustained judgements of themselves or others based on initial or limited information (e.g., if John steals bread, he is dishonest) (Dweck, Hong, & Chui, 1993). On the other end of the spectrum, incremental theorists, who believe that traits and attributes are malleable and can change, are more likely to look for provisional reasons why John stole the bread (e.g., he's hungry, desperate, poor) (Dweck, Hong, & Chui, 1993). The research continued to tease out the nuances of the different belief sets (or mindsets) and the implications and outcomes in educational environments. Additionally, measures were validated over the course of multiple studies to assess whether an individual holds an entity theory (fixed mindset) or an incremental theory (growth mindset) (e.g., Dweck, Chui, & Hong, 1995; Erdley & Dweck, 1993; Levy, Stroessner, & Dweck, 1998). These measures continued to be and currently are used in research regarding these concepts (e.g., Gregory & Levy, 2011; Heslin, Latham, & VandeWalle, 2005; Levy, Stroessner, & Dweck, 1998).

Implications: A Mixture of Mindsets

Given the definitions of growth and fixed mindset, it is easy to assume that people with a fixed mindset cannot and do not succeed in life, but that is not the case. Most people have a mixture of growth and fixed mindsets, depending on the circumstance, and some people are more inclined to a fixed mindset than others (Dweck, 2006). Entity and incremental theory can also apply to myriad different categories: intelligence, emotions, willpower, self-control, others' characteristics, empathy, personality, and failure, just to name a few (Dweck, 2006). Then, there are subcategories (e.g., one could have a growth mindset academically (it is possible to learn more subjects) and a fixed mindset regarding musical inclination (people are either born with musical talent or not, and nothing can change that)) (Dweck, 2006). Where growth and fixed mindset enter the equation among successful people is how they view their success and how they respond to setbacks. People who have a predominantly fixed mindset view their worth through their achievements, and therefore are inclined to constantly prove their capability (Dweck, 2006). This can mean that they create environments where everything is about their personal success and they will not tolerate disparate information or anything that challenges their capability (Dweck, 2006). On a lesser scale, people with fixed mindsets may find themselves paralyzed by setbacks, unwilling to consider information that is new to them, and fiercely protect their points of view (Dweck, 2006). They may be debilitated by self-doubt in situations where they do not feel fully smart or successful (Dweck, 2006). On the other hand, a fixed mindset may "give people a sense of security in a complex world" (Dweck, 1999, p. 151), which may explain why so many people hold a fixed mindset. Meanwhile, people in a growth mindset do not attach personal worth to

setbacks or failures, but rather see these situations as opportunities to learn (Dweck, 2006). As a result, they are not generally threatened by collaboration, receiving new or surprising information, or being wrong (Dweck, 2006). However, even people with a predominantly growth-mindset-oriented way of thinking may be triggered into a fixed mindset. Situations might include (Dweck, 2006):

- Taking on a big, new challenge
- When one is struggling and keeps hitting dead ends
- A decisive failure that challenges one's identity (e.g., divorce, getting fired)
- Encountering someone who is more advanced than you in an area you feel you are strong in/pride yourself on
- Responding negatively towards another's failure (e.g. judging them dispositionally rather than situationally) (p. 255)

Implicit Person Theory: Growth Mindset in the Workplace

Researchers have examined the effects of mindsets in the workplace. In these studies, concepts regarding mindsets are referred to as *implicit person theory* (IPT) and have mostly been studied regarding questions of how managers' IPTs affect their behavior towards employees, or how employees view their managers and/or processes within the workplace. In IPT, an entity (fixed) theorist believes that others' characteristics, behaviors, and skills are set and not likely to change, while an incremental (malleable or growth) theorist believes that people can and do change (Dweck, Chui, & Hong, 1995; Dweck & Leggett, 1988).

This has an impact on managers' willingness to interact with employees around performance and can affect their overall judgements of employees (Heslin, Latham, &

VandeWalle, 2005; Heslin, Latham, & VandeWalle, 2006). Managers who have entity theories tend not to see improvement, even if improvement is present (i.e., their initial impressions of their employees tend to hold steady over time, even if the employee has changed for the better or worse) (Heslin, Latham, & VandeWalle, 2005). When a manager holds an entity theory of his or her employee, the manager is less likely to coach the employee toward performance improvement, and/or the coaching relationship is negatively affected due to their belief that the person can't change (Heslin, Latham, & VandeWalle, 2006). Managers having incremental mindsets, and therefore engaging more in coaching their employees, leads to more positive relationships between employees and managers, resulting in increased organizational citizenship behaviors (OCB: Organ, Podsakoff, & MacKenzie, 2006) in the employees, such as altruism and conscientiousness (Özduran & Tanova, 2016).

A manager's IPT can also have a more direct impact on their employees and their employees' perceptions. From the employees' perspective, when a manager has an entity theory, the employee is more likely to feel that the performance evaluation process is unjust (Heslin & VandeWalle, 2011). A manager's IPT also plays a role in employee job satisfaction (lower when the manager holds an entity theory) and turnover (higher when managers hold an entity theory) (Kam et al., 2012). Kam et al. (2012) also found that how an employee perceives their manager's mindset has an effect on how much effort they are willing to put into improvement: if an employee perceives that their manager has an entity theory, they are likely to feel that any effort on their part will not be noticed by their manager.

Continuing into the realm of employee engagement, Zingoni and Corey (2017) found that employees who have a growth mindset are more engaged at work, and that their relationships with their managers are stronger if they have a manager who is learning goal oriented. The pairing of these attitudes works well together—the manager believes the employee can change and grow and so coaches them, and the employee believes that they themselves can change and grow and so takes advantage of the opportunity (Zingoni & Corey, 2017). Zingoni and Corey (2017) theorize that when opposite pairings occur, engagement may lower: a fixed mindset employee could be discouraged in the environment that an incremental theory manager creates, and a growth mindset employee paired with an entity theory manager could become bored and disengaged. Further, when looking at leadership styles, transformational leadership is more effective when growth mindset is present, whereas other styles of leadership stifle employees with a growth mindset (Caniëls, Semeijn, & Renders, 2018). Employees without a growth mindset are not as affected by transformational leadership, while employees who have a growth mindset and a proactive personality are more likely to have higher work engagement when they have a transformational leader (Caniëls, Semeijn, & Renders, 2018). Research into the application of growth mindset and IPT in the workplace is yielding important information regarding the relationship between managers and their employees, and how that affects employee engagement and the growth and development of employees. It is pertinent from the employees' mindsets as well. For instance, employees may fall into the pattern observed by Tam, Pak, Hui, Kwan, and Goh (2010) that if they have an entity mindset, they are not likely to change

their opinions of each other's or their leader's performance over time, even if there has been an improvement in performance.

The most recent evolution of researching growth and fixed mindsets in the workplace is examining whether whole organizations can have a growth or fixed mindset, and what the effects of that might be. Murphy and Dweck (2010) examined group-level implicit theories of intelligence and found that people within the organizations were influenced by the environment produced by the mindset of the organization. People were more likely to judge others in accordance with their perception of what was 'approved' and beliefs about behavior were aligned with the culture: in a culture of 'genius,' members believed they needed to present and maintain their 'smart' selves in order to be successful (Murphy & Dweck, 2010).

Growth Mindset Among Leaders

Currently, there is little research into the effects of growth and fixed mindset for leaders in their approach to their own work, growth, development, and how they relate to others. Considering what we know about growth and fixed mindset and IPT, it is reasonable to think that mindsets would have an effect on leaders' own selves, along with the ripple effect into their sphere of influence. Recent research on the inability of many leaders to work together effectively (Hildreth & Anderson, 2016a), combined with what we know about the effects of fixed mindset on self-esteem, open-mindedness, the ability to incorporate new information, and provocation into an ego-driven state (Dweck, 2006), suggests that when it comes to leaders interacting with one another in situations that rely on collaboration and problem-solving for successful outcomes, leaders with fixed

mindsets (or triggered into a fixed mindset) may have significant obstacles to overcome in order to be effective.

Additionally, as much as a leader's mindset has an effect on their employees (e.g., Heslin, Latham, & VandeWalle, 2005, 2006; Kam et al., 2012), a leader's performance at their own job level falls within the concepts explored by Zingoni and Corey (2017), that individuals with an incremental (growth) mindset "focus on learning, [and] are more efficacious and persistent in the face of setbacks" (p. 37), and are therefore more likely to have a higher job performance. High-level leaders often have many job responsibilities above and beyond that of supervising and can encounter high-stakes situations where conflicting priorities, allocation of resources, and responsiveness to changing environments may trigger defensive/protective stances in them. If leaders in these situations have (or are triggered into) a fixed mindset, they may be less willing to collaborate or to have an outward mindset toward the greater good (vs. protecting their own territory). IPT has even been shown to have an effect on negotiations, where "incremental theorists captured more of the bargaining surplus and were more integrative than their entity theorist counterparts" (Kray & Haselhuhn, 2007, p. 49). It has also been shown that the mindsets can change via self-awareness and intervention (Dweck, 2006; Heslin et al., 2006), but the research so far has focused primarily on employees who have growth mindset or employees in relation to their manager's mindset. At present, there is a gap in research regarding how an individual's mindset affects their own performance, in particular the impact it has on interpersonal interactions. This study begins to bridge that gap.

Summary

Thanks to Dweck's (2006) book, *Growth Mindset*, decades of research about implicit person theory is entering both popular culture and the business landscape. The idea of these foundational mindsets—growth and fixed—is inspirational because the ideas are accessible and help explain basic behaviors with a new sense of clarity.

While most work regarding mindsets is oriented toward children and other students through college, the last 20 years has seen more investigation of the mindsets as they apply to adults and the workforce. Within this movement, manager and employee relations, employee performance and perceptions, and even the 'mindset' of entire organizations is being investigated. However, the effect of the mindsets on leaders themselves has had limited research. Considering how influential leaders are in their organizations (especially at the higher levels), it is especially important to understand the impact of growth and fixed mindset on them. In particular, high-achievers may not realize that they have or are triggered into fixed mindsets and may therefore be unaware of how their own perceptions might be undermining their efforts. This study seeks to contribute in this particular area. The next chapter outlines the methods used in this study.

Chapter 3: Research Methodology and Procedures

The purpose of this research was to better understand how high-level leaders' internal growth or fixed mindsets affect their behavior in interpersonal interactions with others. This chapter outlines the research design and the sampling, data collection, analysis considerations, and protection of the participants and their privacy.

Research Design

This research was conducted using a convergent parallel mixed methods design in order to more fully understand participants' views by comparing them against quantitative data in the form of a self-assessment. Mixed methods research consists of collecting and integrating two forms of data—quantitative and qualitative (Creswell, 2014). According to Creswell (2014), this provides “a stronger understanding of the problem or question than either by itself” (p. 215). In this case, the quantitative data were collected via a self-assessment of mindsets using measures that have been proven in the field (Dweck, Chui, & Hong, 1995; Erdley & Dweck, 1993; Levy, Stroessner, & Dweck, 1998), and the qualitative from semi-structured individual interviews with the same set of participants. In convergent parallel mixed methods design, both sets of data are collected and analyzed, then compared to “see if the findings confirm or disconfirm each other” (Creswell, 2014, p. 219). This design was appropriate for this study because the self-assessment generated consistency with other growth mindset research in the field, while the interviews enabled a more nuanced understanding of complex, personal points of view from the participants (Maxwell, 2013).

Research Sample

The sample for this study consisted of 12 leaders at the director and vice president level and was a purposeful sample of convenience (Maxwell, 2013): leaders from the researcher's own organization who were interested in participating in the study and met the criteria were admitted to the study on a volunteer basis. In order to participate, individuals had to be in a position of leadership at the director level or above, with at least year in their current role, so as to be in a stable routine of the role—as opposed to being in a new role (which might artificially increase situational instances of fixed mindset due to the leader being outside of their comfort zone). Snowball sampling was also used; participants identified other appropriate candidates for participation.

Data Collection

Data collection consisted of a self-assessment and individual interviews, in addition to minimal demographic information.

Demographic Data. The demographic data collected were the participants' names, age, sex, job titles/roles, number of years in role, and number of years of total experience at the director level or above. These represented criteria of the sample selection, plus general information to distinguish participants from each other in order to correlate results of the self-assessment to the interview data. In addition, the age, sex, and years of total experience of the participants were collected in order to observe whether any themes arose when connected with the assessment and interview data.

Self-Assessment. Participants took a self-assessment within one week prior to their interview to measure their basic tendencies toward a growth or fixed mindset in five domains, which could later be compared with the data from the interviews. The measures

used in the self-assessment were developed, refined, and validated over time in multiple studies (e.g., Dweck, Chui, & Hong, 1995; Erdley & Dweck, 1993; Levy, Stroessner, & Dweck, 1998) and have been consistently used for research in this area since. Levy and Dweck (1997) found that the test–retest reliability of the scale data from their measure *Beliefs About Human Nature* was .82 over a 1-week period and .71 over a 4-week period. Levy et al. (1998) found high internal consistency ($\alpha = .93$), and Dweck (1999) found high construct validity. The measures can be used in relation to intelligence but can also be filled in with various other domains or facets of belief and experience (Dweck, 1999; Dweck, 2006). This study used the version of the measures as defined in Dweck’s *Mindset*, which were defined over time by Dweck, Levy, MacGyvers, Chiu, and Hong (Dweck, 2006) and contain four statements.

Two statements indicated a fixed mindset and two indicated a growth mindset. For example, a fixed-mindset-oriented statement is, “You can learn new things, but you can’t really change how intelligent you are,” while a growth-mindset-oriented statement is “No matter how much intelligence you have, you can always change it quite a bit.” This study used the measures to examine the domains of intelligence, talent, business skills, leadership ability, and potential. The first domain, intelligence, was chosen because it is the foundational concept in growth mindset. Talent as the second domain was chosen because it is a domain to which people frequently ascribe innate imbue ment (e.g., one can *learn* to read, but unless born with talent, will never be able to play a musical instrument) (Dweck, 2006). The third, potential, was also chosen because people frequently associate it as an innate quality. The fourth and fifth—business skill and leadership ability—were chosen because they are primary components of a leader’s role

and responsibilities, especially at higher levels of the organization. Everyone has both a fixed and growth mindset and may also be triggered into a fixed mindset in certain situations (Dweck, 2006). Taking the measure along each of these five domains provided a broad-based assessment of the participants' general/overall mindsets as well more specifically for domains pertinent to their roles. Participants completed the self-assessment via a Qualtrics survey using a Likert scale for each statement ranging from 1 (Strongly Agree) to 6 (Strongly Disagree). See Appendix A for a complete list of the complete measures used.

Interviews. Each participant was interviewed individually in a semi-structured, 60-minute interview in person or, in one case, over the phone, using a mixture of questions designed to elicit the participant's perspective as well as have them share stories of their experience with interpersonal interactions among peers, leaders, and employees. This was to first understand their personal definitions of effective and ineffective interactions, and then to learn through the examples they gave where growth and fixed mindset might be arising in their interactions. In order to draw on leaders' personal experience of themselves, the interview questions first had the leaders create their own definitions of what an effective interaction is versus an ineffective interaction, and then those definitions were used as points of reference throughout the remainder of the interview. The participants were then asked to distinguish experiences of effective interactions versus ineffective interactions, and then speak to what their inner landscape looked and felt like during those interactions.

Q1 was intended to help build rapport, create safety, and anchor the participants in their own experience before proceeding. Q2 was the predominant area to elicit

participants' definitions of effective and ineffective interactions, although further refinements to those definitions came out in their remaining answers as well. Q3 spoke to participants' overall evaluation of their own interactions across the breadth of their current role and work experience.

Q4-Q6 were oriented toward eliciting examples from participants about their direct experience in effective and ineffective interactions, with specific attention paid to their own side of the interaction (what they said and did), and then turning attention to what their inner world looked and felt like during that interaction. In many cases, the conversation was able to go several layers deep in the personal experience, revealing underlying motivations and emotions. These questions were designed this way in order to be able to observe thoughts, emotions, and behaviors indicative of the presence of growth or fixed mindsets in both effective and ineffective interactions.

Q8-10 were designed to allow the participants the opportunity to add further nuance to their definitions and to their experiences, as well as to bring them back up out of potentially concerning emotional territory back to a place of appreciation of and reflection on positive experiences.

Q7 was not used during the actual interviews.

The interview protocol included a review of consent information and affirmation of consent, as well as an introduction to the interview to orient participants to what would be asked of them and what kind of information was being sought. The interviews were recorded, transcribed, and handwritten notes were also taken by the researcher for the purposes of data analysis. See Appendix B for the interview protocol.

Confidentiality and Respect Towards Participants

During solicitation for participants, candidates received a disclosure about the nature and purpose of the study, as well as the time and effort involved, and the researcher's contact information in order to make asking additional questions very easy. Prior to confirming their participation in the study, they received a consent form restating the essential information. They were assured of the confidentiality of their personal data and any information they shared during the study in terms of publication. They were asked if they felt comfortable participating under these circumstances and should they feel uncomfortable and wish to withdraw, they may do so, and their information collected up to that point would be destroyed.

Confidentiality of data began by assigning each participant a unique numerical identifier (e.g., 001, 002), maintained by the researcher in a master list kept in a password-protected file on the researcher's password-protected personal computer. No hardcopy list was created. Participants were given their unique numerical identifiers, so that additional data (the online self-assessment and the recordings of the interviews) could refer to the unique identifier and not to the participant's name. Audio recordings were transcribed into password-protected digital files stores on the researcher's password-protected personal computer, and the audio files destroyed at the conclusion of the study by permanently deleting them.

Consent documents were stored in password-protected files on the researcher's password-protected personal computer. The original hardcopies of the consent forms remain the property of the participants. All hardcopy data or handwritten notes were

scanned by the researcher and stored under password protection. Paper copies were destroyed by shredding through a crosswise shredder. All data collected during the research portion of the study used only the participants' unique identifiers (not their names) and were stored in password-protected files separate from the master list.

The data were collected, analyzed, coded, and categorized by the researcher. Any personal information that could identify the participant was de-identified, removed, and aggregated before the study results were reported. Any records that would identify the participants, such as informed consent forms, will be destroyed by the researcher a minimum of seven years after the completion of the study in accordance with the IRB regulations at the company where the research took place.

Data Analysis

Self-assessment. Descriptive statistics were used to assess the results of the self-assessments to ascertain the participants' tendencies in each of the five domains. Those definitions remained associated with the participants throughout the data analysis, along with their demographic information. Due to the ordinal nature of Likert scale data, a scoring system was used to tabulate the data from the self-assessments. Each Likert choice was given a numerical value: for the first two statements in each domain (the fixed-mindset-oriented statements), 'strongly agree' was assigned a value of 1.0. Due to the inverse nature of the first two and second two statements in each domain, the scoring for the second set of statements (the growth-mindset-oriented statements) in each domain was reversed: 'strongly agree' was a 6.0. This method of scoring and tabulating data from the measures is consistent with previous research using these measures (Heslin, Latham, and VandeWalle, 2005; Levy, Stroessner, & Dweck, 1998). Responses to all four items

were averaged to create a mean mindset score for each participant in each of the five domains. Mean mindset scores of 1.0-3.0 indicated a fixed mindset in that domain, mean mindset scores of 4.0-6.0 indicated a growth mindset in that domain, and scores between 3.0 and 4.0 were deemed inconclusive. This approach was used in alignment with foundational work in the use of these mindset measures (Dweck, Chui, & Hong, 1995; Levy, Stroessner, & Dweck, 1998).

Mean scores and standard deviation were then calculated across each domain to see if there were any population differences among the sample. Mean scores for an average of all five of a participant's scores were not calculated, as each individual domain has no bearing on the other domains. Individuals may have fixed mindsets in one or more areas of their life without affecting their growth mindset in other areas (Dweck, 2006). However, notice was taken of participants who had fixed mindset scores in one or more domains, especially as related to the interview data.

Interviews. The interview data were transcribed and then read and listened to repeatedly to anchor into the stories and begin to see and hear themes. The data were then reviewed again and coded in an open-coding method, with the codes being developed as the data were reviewed and important concepts and similarities were discovered (Maxwell, 2013). Using inductive analysis, the data from the interviews were then refined into a comprehensive set of themes (Creswell, 2014) independent of the assessment results. This was done in five parts.

Part 1: Effective and ineffective interaction definitions. First, the interview data were coded for overall definitions of effective and ineffective interactions across all of the interviews, primarily from the answers to Q2-Q3 but also including information from

the remainder of the questions as applicable. The original list of coded data was combined and consolidated to reduce near-duplicate ideas, and then grouped into themes.

Part 2: Participants' overall effectiveness in interactions. Next, the answers from Q3 were analyzed to understand participants' evaluation of their own interactions generally speaking, as well as what conditions might increase or reduce their effectiveness.

Part 3: Growth and fixed mindset. Third, participants' answers were coded for thoughts, feelings, or attitudes that may be grounded in growth or fixed mindsets. These were predicated on the basic definitions and implications of growth and fixed mindset as described in Chapters 1 and 2.

Part 4: Connection of effectiveness to growth or fixed mindset. Fourth, the data were coded for effective and ineffective interaction behaviors again, this time as observed within each unique interview, not across interviews, in order to understand what each individual participant's definitions of effective and ineffective interactions are. They were then examined to see if there were linkages between the mindsets and the behaviors (i.e., did an instance of growth mindset attitude lead to effective interaction behavior for that participant, and/or did an instance of fixed mindset attitude lead to ineffective interaction behavior for that participant), according to the participant's own definition of effective and ineffective interactions.

Part 5: Overcoming fixed mindset with growth mindset. During the previous steps of analysis, an unexpected and pertinent theme began to reveal itself, and so became a fifth step of the interview analysis. After seeing a pattern emerge, interview data were combed for examples of situations in which participants experienced fixed mindset

indicators and were able to counter this impulse with more effective behaviors (in line with growth mindset indicators).

Combining assessment and interview data. Finally, the data from the interviews were connected to the individual results from the assessments, and compared to see if the assessment results informed the themes from the interview data regarding fixed and growth mindset: did the results of the assessment suggest certain types of answers from participants, and were those types of answers given? If not, what did the data suggest? Were there any other themes or nuances to be gleaned from this comparison?

Validity

Potential validity concerns included the use of pure volunteers for the study, as well as the use of snowball sampling—there might be more likelihood for people who already have a growth mindset to volunteer for a study such as this, and the people they are likely to recommend may be of a similar mind. Results from the assessments suggest that this may indeed be a factor.

Summary

This chapter described the methodology used in the study. It restated the purpose of the research and presented the design of the data collection, the methods that were used to analyze the data, and measures that were and will continue to be taken to protect the participants in the study.

Chapter 4: Findings

The purpose of this research was to better understand how high-level leaders' internal growth or fixed mindsets affect their behavior in interpersonal interactions with others, and sought to answer the question: What is the effect of a leader's mindset on their interactions with others? This chapter presents the findings of the data analysis. The first section summarizes the demographic data for the sample, the second addresses the results of the self-assessments, the third reports the findings from the interviews, the fourth examines the relationships among the quantitative and qualitative findings, and the last section summarizes the overall findings.

Quantitative Findings: Demographic Data

The sample consisted of seven women and five men. Participants had a wide range of total experience at the director level or above (from one and a half to 22 years), with one to four and a half years in their current roles. They also varied in age, ranging from 40 to 60 years of age. There were seven directors, one executive director, and four vice presidents representing nine separate areas of the company.

Quantitative Findings: Self-Assessment of Mindset Measures

The results indicate that the group as a whole is predominantly growth-mindset-oriented. Of the 60 possible domain scores between 12 participants, 82% of the ratings were solidly in growth mindset, 6% of the scores being inconclusive, and 12% falling into the fixed mindset orientation. Six of 12 participants (50%) had an overall growth mindset in all five domains, three (25%) had at least one inconclusive score, two (17%) had one domain where fixed mindset was indicated, and one participant had three

domains where fixed mindset was indicated. The results are listed in Table 1.

Participants' responses were de-identified and randomized to ensure confidentiality.

Table 1

Scored Tabulation of Self-Assessment Responses

Participant	Domains				
	Intelligence	Talent	Potential	Business Skill	Leadership Ability
A	4	5	6	6	5
B	5	4.5	5	6	6
C	4	6	3.25	4.5	5.25
D	5	2	2	5	2
E	4	5.5	5.5	6	5.75
F	4.5	5	4.75	6	5.5
G	2.5	4.25	4.5	4.75	3.75
H	3.25	4.75	5.5	5	5.75
I	5	4.25	5.75	6	6
J	3.5	3.5	3.5	5	5
K	2.25	4.25	5.75	4.5	5
L	5	5.25	5	5.25	5
Mean	4.00	4.52	4.71	5.33	5.00
SD	0.97	1.04	1.21	0.62	1.13

The mean and standard deviation indicated that the group as a whole was predominantly growth-mindset-oriented in each domain, but that the domain of intelligence had the highest level of fixed mindset among the domains, with the domain of business skill reflecting the lowest amount of fixed mindset.

Qualitative Findings: Interview Data

The sections below outline the findings in each of the five parts of the interview data analysis. When examined together, the five parts provide insight into participants' perspectives and experience and suggest that fixed and growth mindset affect leaders' interactions and contribute to ineffective and effective interaction behavior.

Part 1: Effective and ineffective interaction definitions. Participants were asked to relate how they personally define effective and ineffective interactions in order to provide a point of reference for the remainder of the interview questions. This was intended only as an anchor point for each participant within their interview—not as a contribution of knowledge broadly—but it yielded themes indicating that there may be culturally common perceptions of effective and ineffective interactions. Three themes surfaced, with subthemes for both ineffective and effective interactions (Table 2).

Table 2

*Themes of Effective and Ineffective Interactions
(with N the number of participants' views represented in the theme)*

Theme	Effective (E)	Ineffective (IE)	N (E/IE)
Connection	Being open/listening Respect/trust/relationship Engagement	Not listening/heard Disrespect/devalue Lack of engagement	12/10
Response	Dialogue/seek common ground Orientation towards other Self-composure/regulation	Non- participative/collaborative Orientation toward self React or withdraw	12/8
Outcome	Good outcome/results Clarity/alignment/understanding Relationship maintained or built	Lack of progress/results Confusion/misunderstanding Relationship erosion	11/11

Some examples of participant comments regarding effective interactions were, “If you’re not valuing all opinions, you’re not going to get where you’re trying to go,” that an effective interaction should be “time well spent,” and that everyone should leave feeling heard. Conversely, ineffective interactions can be characterized by a “lack of engagement,” and have results such as being “confused about purpose and where we were going,” or a “breakdown in growth or maintaining the relationship.”

Part 2: Participants' overall effectiveness in interactions. All but one participant reported a generally effective pattern of interactions—between 75-90% effective (versus ineffective) interactions. The remaining participant reported consistently effective interactions. Half of the participants reported reduced effectiveness when interacting with leaders at a higher level than they are in the organization. One participant reported reduced effectiveness when interacting with direct reports, and the remainder indicated consistent effectiveness across all levels of hierarchy.

Participants also elaborated on their experience of interactions, contributing to both their definitions of effective and ineffective interactions as well as their accounts of thoughts and feelings when interactions are either effective or ineffective; data from these elaborations were combined into the analysis on these topics.

Part 3: Growth and fixed mindset. All 12 interviews reflected both growth and fixed mindset indicators, though it is important not to combine or compare the growth and fixed mindset indicators together. They exist independently and sometimes in combination for each participant; each participant also has differing frequency and intensity of the various indicators. This is in keeping with the research on growth and fixed mindsets, which demonstrates that individuals are likely to have a combination of both, and even if they predominantly lean toward one or the other can have situational episodes of the opposite (e.g., if one is triggered into a fixed mindset by a significant idea or event) (Dweck, 2006).

An additional observation was that five of the participants gave comments which suggested that they may sometimes experience fixed mindset leading up to or preparing for interactions (not just during the interactions in response to a trigger). This emerged as

the code of “confidence/satisfaction derived from having the right answer/being ‘on.’” While ‘being prepared’ is a culturally common desire/requirement in the current business environment, the nuance here is that participants gave this reason as example of when their interactions, particularly in meetings, were very effective. One aspect of fixed mindset can be the need to be ‘perfect’ or the idea that one’s performance is tied to worth (Dweck, 2006). These participants also gave examples of ineffective interactions that listed things such as being caught off guard or being questioned as triggers for negative self-talk. With their definitions of effective and ineffective combined, it suggests that the underlying mindset in these scenarios may be fixed. However, more conversation with these participants would be necessary to understand the origin of this perspective, since there could be many other reasons for it.

The growth mindset table (Table 3) reports codes which had a 50% or higher response rate. The fixed mindset codes were not easily combinable, so the fixed mindset table (Table 4) lists codes regardless of response rate to reflect the variety of ideas represented by the sample without over-simplifying. The column “N” represents the number of participant views represented by each code (12 was the maximum).

Table 3*Growth Mindset Themes*

Themes	Codes	Sample response	N
Orientation toward other	Seek to understand/learn more	“I made a conscious effort to understand their perspective” “I took the time to listen”	11
	Prioritizes dialogue	“I needed to bring maybe someone that wasn't participating and make sure they had a voice” “I heard her, she heard me”	10
	Collaborate/pursue solution that meets all needs	“You know when it's about “we've got a problem to solve and it's a challenging problem,” the things that show up in those effective things are just people really being open with one another and open to ideas and processing through all of that in a respectful way and in a way that actually builds energy.” “You have to really understand who you're talking to and then you have to adjust your style so they can hear you.”	7
	Open-minded/no prejudice	“Accepting differences and truly understanding before passing judgement” “Don't dive into the deep end telling yourself a story”	6
	Treat people with respect	“At the end of the day we all deserve mutual respect” “Respecting the other person's values or their views; being persistent in trying to find that common ground.”	6
	Invite others' ideas and perspectives	“My goal is to establish a dialogue... and right away ask for suggestions.” “If I say something that maybe... I didn't fully take in the other viewpoint and said "We're gonna do this this way," and either their body language maybe or something about how they reacted made me realize that maybe I didn't fully listen to them and I could kind of stop at a point and say well, you know I could	6

		acknowledge... how you just reacted... is there something I'm missing. Let's talk it through again.”	
Attitude/ approach	Willing to take on challenges/seek out different approaches/don't give up	<p>“You have to find ways to overcome those barriers with those people, whether it's agree to disagree but still build a relationship that's complex in nature....”</p> <p>“It took me almost a year. But I never gave up and... really I learned probably to be more effective... I definitely don't give up.”</p>	10
	Willing to be vulnerable/open	<p>“Show the vulnerability that I don't have the answers, but they do.”</p> <p>“Really being present and malleable to what may come”</p>	8
	Learning from the interaction	<p>“Use it as a learning opportunity instead of evidence that they are bad”</p> <p>“It might be a little bit of disappointment that maybe you felt like it didn't go well, but I also feel very good about getting the feedback... I always take that reflect and when I do that then my innovative creative side kicks in and I'm able to regroup I guess and then come back for further dialogue.”</p>	8
	Don't take things personally	<p>“I had settled in my mind that I could have compassion for this person while disagreeing with the behavior and while upholding the highest standard of expectation for the work.”</p> <p>“Humanizing the other person is so important... other people's feelings are 100% valid.”</p>	8
	Self-growth to become more effective over time	<p>“You have to ask people, ‘Hey, I'm working on this... Have I gotten better?’”</p> <p>“I have a horrible, horrible temper but nobody in the workplace believes that; they don't see it. They don't ever. They don't have to deal with it. And that's because I made a choice long ago it doesn't add value.”</p>	7

	I'm responsible for my experience	<p>“If I don’t take time to reset my mindset before walking in, it will affect how I show up.”</p> <p>“Own the ground you stand on.”</p>	6
Response when ineffective behavior arises	Self-awareness/ recognizing ineffective behavior	<p>“What is it that I need to do to gain my equanimity?”</p> <p>“I knew I was charged up, I knew it in the moment and I couldn't reel myself in because I was emotionally involved in the conversation in a negative way.”</p>	12
	Willing to change behavior in the moment once recognized	<p>“You might have an emotion that evokes that defensiveness but if you act on it, you're probably going to have a bad outcome. So, patience, learning some patience.”</p> <p>“I was mindful that this was a growth opportunity to maintain self-control, be calm, and communicate in a reasonable way.”</p>	7
	Self-coaching to better mindset when triggered	<p>“You either want to fight or shut down and you can't really do either right. You gotta stay engaged...”</p> <p>“My self-talk is be patient, my self-talk is hear the person out...”</p>	7

Table 4

Fixed Mindset Themes

Themes	Codes	Sample response	N
Trigger from other	Question/not recognize my ideas	<p>“When I feel really confident in what I'm... bringing forward, I've... put a lot of thought into it and then as you're talking to your audience which could be one person or group of leaders that they start to get that pushback.”</p> <p>“If I feel like somebody is just pushing back to push back, if... I don't understand their rationale for it, or it feels out of left field or feels like reactive or impulsive, I'm going to get more frustrated because I feel like they're not giving it the time and attention, they're not asking the right questions, they're not evaluating from a perspective that I can understand...”</p>	7
	Questioning/ threatening my integrity	<p>“Something that doesn't fit with my core principles or challenging my integrity or intentions.”</p> <p>“I'm not going to compromise my integrity for anyone.”</p>	4
	Feel devalued	<p>“You're dealing with a consultant and there's an interaction that's from my perception rude because they're treating me like an intern or they're not being respectful of my role.”</p> <p>“I feel devalued and I feel frustrated with myself for allowing it to happen.”</p>	4
	I haven't been heard	<p>“My immediate response was that my boss was blowing off my [email] responses.”</p> <p>“I left frustrated, insulted, not listened to...”</p>	3
Inner thoughts/ feelings	Second-guessing myself/questioning my own competence	<p>“I just did a lot of good things, but I didn't give myself any credit for it. I was measuring myself always against somebody else.”</p> <p>“I can always come close, but I can never quite get there, even though I know I've accomplished a lot.”</p>	8

	Negative self-talk continues after interaction	<p>“Replaying the conversations over and over”</p> <p>“The impact of it not being an effective interaction can derail the rest of my day if I let it. So, the power of those things when you're not having an effective interaction... you now ponder it, you process it, you may be frustrated, you may be hurt. And so, you've got to figure out what do I do with that? And sometimes if you're not careful you can, like I said, let it just derail you. And it can erode trust.”</p>	4
	Frustrated with self	<p>“You want people to think that you're competent and that you do your job well and that they can trust you, and the moment that you say something that breaks that down you feel a little like a failure.”</p> <p>“Uh-oh... this is coming off the rails and I hate it when this happens, I know what it means when this happens... Can I salvage it? I don't know I think I should just cut my losses and get out of this conversation.”</p>	3
	This threatens my work/efforts	<p>“This is going to derail my grand plan”</p> <p>“Not trusting that person to have the result I needed to have.”</p>	3
	Do they/will they like me?	<p>“You don't like working for me?”</p> <p>“I say I don't care if people like me I just want them to respect me. End of the day, that's a lie too. I want them to like me.”</p>	2
	They don't think I can do the job	<p>“Is someone feeling like I'm not doing a good job?”</p> <p>“He went from being on board one minute to thinking I was a complete idiot.”</p>	2
Response when fixed mindset arises	Become defensive/react	<p>“When you react without digesting”</p> <p>“I immediately became annoyed at such an obvious miss.”</p>	8
	Withdraw/can't articulate my thoughts	<p>“If I'm feeling intimidated... I'm more focused on that factor than am with my—I certainly have everything I need to bring something forward and communicate it well but I'm too... I get rattled.”</p>	7

		“I shut down in the moment.”	
	Unable to gain control of reaction, at least momentarily	“That’s a terrible way to do things but it’s so hard to control in those moments sometimes.” “Sometimes it isn’t until the end of the meeting until I’m able to self-correct.”	6
	I need this to be my way	“I’m more likely to... take umbrage at something somebody else is doing because it conflicts with something that I want to do...” “I actually wasn’t listening to him when he was talking... I was formulating my next argument.”	5
	Switch out of collaboration	“We didn’t make any headway; we were too bullheaded.” “My instinct is to regain control.”	4
	They are how they are/I know this isn’t going to change	“Anything he said to me was not going to be valid and I established that decision probably about 10 minutes into the conversation.” “I may not forget the data from this episode.”	2

Part 4: Connection of effectiveness to growth or fixed mindset. 10 of 12

interviews yielded one or more examples of fixed mindset indicators leading to ineffective interaction behavior(s) and growth mindset indicators leading to effective interaction behavior(s) (in accordance with the participant’s own definitions of effective versus ineffective interactions). This is evident more broadly in the themes listed in the above sections, where one of the themes from growth mindset (see Table 3), “orientation toward others,” is also one of the codes for effective interactions (see Table 2). More granular examples were illuminated in participants’ individual answers, though they did not speak directly to the mindsets. A story illustrating possible fixed mindset contributing to ineffective interaction behavior was about a meeting where a participant was unexpectedly faced with a project being reassigned to another team. In response, the

participant experienced reduced self-confidence and questioned whether others shared this lack of confidence toward the participant. The participant's behavior became "antagonistic," and shifting into more effective behavior was not attainable during the meeting. Another participant described that in interactions where resistance is perceived, particularly with leaders more senior than they, and the participant feels unheard, their tendency is to withdraw and not "push my view," rather than clarify their stance. The participant identifies this as ineffective behavior since important information (their perspective and knowledge) is no longer being contributed to the interaction.

For growth mindset contributing to effective conversations, a story illustrating this was that of a participant interacting with their team when a big change was occurring, going into the meeting knowing that they wished to really understand the team's perspective. "People bring unique nuances that I may not have considered." This perspective led to the design of the meeting and their own behaviors during the meeting of expressing interest and being responsive to team members' thoughts and emotions. A second example is that of a participant preparing to have a difficult conversation with an employee regarding poor performance and dreading it. They felt a deep commitment to both fulfilling their responsibility to correct the employee while also caring for the person and the relationship. This commitment informed the preparation they put into the conversation, both technically and personally. In the end, the conversation went well, with the employee being both cared for and held accountable for their behavior. "I didn't get into my emotions—I was able to keep it to compassion."

Part 5: Overcoming fixed mindset with growth mindset. In nine of 12 interviews, participants gave at least one example of overcoming fixed mindset with

growth mindset, in line with the theme represented in Table 2, “response when ineffective behavior arises,” where the person is able to observe their own behavior, willing to change it once observed, and then engaging in self-coaching to shift their behavior during the interaction. An example from a participant is being in a meeting with a diverse cross-functional group including outside vendors and recognizing that there was a disconnect in the vendor’s perspective that would lead to poor results for the effort, which challenged the participant’s own area of responsibility. Aware of feeling defensive, but also the urgent nature of this particular work, the participant connected with a higher-level commitment to collaboration, resulting in naming the concern and asking clarifying questions rather than anchoring in defensiveness, yielding “a solution that also moved the process forward.”

This further demonstrates and reinforces existing research that individuals may have a combination of growth and fixed mindsets, that situations may spark episodes of fixed mindset, and that self-awareness and learned behavior can work to overcome those situational moments of fixed mindset (Dweck, 2006). However, participants also reported examples where they were not able to shift their behavior from ineffective to effective within the space of that single interaction.

Again, being careful to not over-generalize: participants may one day meet situational fixed mindset with a growth mindset response, and another day remain triggered into fixed mindset without recovering during the interaction, as different situations may trigger varying degrees of fixed mindset. For example, seven of 12 participants related examples of when they felt their ideas were not recognized or were misunderstood, prompting an inner turmoil of self-doubt or defensiveness. One

participant, after a long-held project was questioned, said they had a “very negative reaction,” and that it was difficult for them to have a shift in thought. Another participant, faced with their idea not getting as much attention as they thought it needed, had an initial disappointed feeling but then decided to “combine voices” to relay the importance of the idea. Depending on the variables present in each scenario (e.g., how big a project it was, how much the person had invested in the idea, and how for how long they had been working on it), the reaction to being challenged could be relatively mild and easily overcome, or it could be taken as a major question of one’s capability and work ethic. This may be more difficult to overcome.

Joined Analysis: Assessment and Interview Data

The final stage of analysis entailed comparing the subsets of data to determine if there were any new insights in how all the data connected. These are addressed in two parts: the demographic data compared to the assessment results and the interview data compared to the assessment results.

Demographic data compared to self-assessment results. The one observation that could be made is that the three participants who had one or more domains with a fixed mindset score were women. In both that the sample size is so small, and in that these participants only showed fixed mindset scores in one to three of five total domains, these results cannot be considered to conclusively mean that women leaders are more affected by fixed mindset than their male peers.

Interview data compared to self-assessment results. The interview data showed that all participants’ accounts contained a mixture of both fixed and growth mindset indicators, so there can be no clear correlation to whether a participant scored as fixed or

growth mindset on the self-assessment. In order to draw a finer point to this analysis, it is necessary to look at the participants in two groups: those who had domains with fixed mindset scores and those who did not.

Fixed mindset scores. Three participants scored as fixed mindset in one or more domains, with one participant also having one inconclusive score (Table 5).

Table 5

Scored Tabulation of Self-Assessment Responses for Fixed Mindset

Participant	Domains				
	Intelligence	Talent	Potential	Business Skill	Leadership Ability
D	5	2	2	5	2
G	2.5	4.25	4.5	4.75	3.75
K	2.25	4.25	5.75	4.5	5

Examining these scores, the interview data reflected fixed mindset indicators leading to ineffective interaction behavior, but this was not unique to these participants; all 12 indicated some level of the same. A slight distinction may be made for both participants G and K, as these participants' descriptions of their ineffective interactions seemed to indicate a somewhat more intense experience of fixed mindset in those moments, using language such as 'failure,' or their overall narrative during the interview indicating that they perhaps spend more overall time day-to-day feeling unheard or undervalued in their interactions. It may be reasonable to conclude that it can require greater effort of these participants to counter the fixed-mindset frame of thought.

However, both of them still gave examples of growth mindset indicators similar to what other participants described and were among the examples of participants countering fixed mindset impulses with growth mindset solutions, and so simply going

by their scores on the self-assessment would not be an accurate prediction of their behavior during all interactions. There are many reasons that this could be—perhaps their beliefs in the other areas allow them to compartmentalize in work situations, or perhaps their level of experience in the business environment has given them many learned behaviors to be effective despite their tendency to have fixed-mindset orientation in their inner worlds. More information would be needed to make conclusions on this front.

The third participant, participant D, was an outlier, with one of the least fixed-mindset-oriented interviews. The narrative shared reflected an approach solidly based in creating connection and dialogue with others. There may be some combination of this person's background, training, and experience that explains this perspective.

Growth mindset scores. The remainder of the participants had either all growth-mindset scores or one to three inconclusive scores. Taking this data at face value, one would expect to see comparable data in the interviews, with those participants who had growth mindset scores across the board demonstrating clear growth mindset principles in their interview answers. However, this was not the case: though many indicators of growth mindset were present in their narratives, all of them also shared examples of fixed mindset indicators. Even some of the 'strongest' growth mindset participants (according to their self-assessment scores) gave examples of fixed mindset indicators that triggered ineffective interaction behavior that they could not shift in the moment, even though they were aware of what was happening at the time.

Summary

This chapter reviewed the findings obtained through qualitative analysis of the self-assessment, interview, and demographic data collected as part of this study. The

study sought to understand how high-level leaders' internal growth or fixed mindsets affect their behavior in interpersonal interactions with others by answering the question: What is the effect of a leader's mindset on their interactions with others? The research data revealed several findings. It is important to remember that all participants indicated that, with certain exceptions, they feel that they are mostly (75% or more of the time) effective in their interactions. Therefore, the data about fixed mindset or ineffective interactions are indicative of what may arise during the 25% or less of the time when the participants are in those situations particular to them that induce ineffective behavior.

That considered, the data demonstrated that:

- The group as a whole was predominantly growth-mindset-oriented according to the self-assessment data; the three that had fixed mindsets were women.
- All participants who had fixed-mindset-oriented or inconclusive scores also had domains with growth-mindset oriented scores.
- Regardless of their scores in the self-assessment, all participants in their interview data demonstrated both fixed and growth mindset.
- Leaders in the sample had similar definitions of effective versus ineffective interactions. Three themes were apparent, which also formed what appear to be commonly-held beliefs about the building blocks of interactions—the connection, the response, and the outcome—with the characteristics of both effective and ineffective interactions within these three building blocks essentially opposites of each other (e.g., ineffective as lack of

listening or empathy versus effective as effective listening and being open to the other person).

- Growth and fixed mindset orientations revealed a pattern similar to that of the effective and ineffective interaction definitions: they also showed groupings that demonstrated a progression of behavior throughout an interaction.
 - For growth mindset: orientation toward other, attitude/approach during the interaction (or in general), and the response to ineffective behavior when it arises
 - For fixed mindset: trigger from the other, inner thoughts and feelings during the interaction, and response/behavior when fixed mindset arises
- 10 of 12 participants gave examples where they were able to respond to fixed mindset/ineffective behavior by countering with growth-mindset-oriented attitudes and behaviors, showing again that fixed mindset is not a static, permanent state of being. Participants also gave examples where they were *not* able to counteract the fixed mindset, depending on the severity of the trigger.
- There was no clear correlation between the self-assessment scores and the interview data regarding fixed or growth mindset. There was a possibility of slightly increased fixed-mindset intensity in

two of the participants who had fixed mindset scores, but not enough to be conclusive without further investigation.

Chapter 5 discusses the summary, conclusions, and recommendations for leaders, organizations, and the fields of organization development and leadership development based on these findings.

Chapter 5: Summary, Conclusions, and Recommendations

The purpose of this research was to better understand how high-level leaders' internal growth or fixed mindsets affect their behavior in interpersonal interactions with others by addressing the question: What is the effect of a leader's mindset on their interactions with others? This work builds on research into theories of self, such as attribution theory, learned-optimism theory, implicit person theory, and specifically on what has become known as growth and fixed mindset. It expands upon the growing body of literature examining growth and fixed mindset in the workplace environment and seeks to illuminate how these concepts affect leaders themselves, and hence their spheres of influence. This chapter provides an overview of the study and discusses conclusions drawn from the findings. It offers recommendations to leaders, organizations, and the fields of organization development and leadership development. Finally, it outlines limitations of the study and makes suggestions for future research.

Overview

This study examined a sample of 12 leaders at the level of director or above (with at least one year in their current role) to understand how they experience interpersonal interactions at work, and how growth and fixed mindset might be influencing those interactions. Data were collected by both a self-assessment using measures that have been validated in prior research and semi-structured interviews with each participant.

Participants reported that their interactions are effective 75% or more of the time (according to their own definitions of effective and ineffective interactions), though almost 50% of them also reported that their effectiveness is or can be reduced when interacting with leaders more senior than they. The data collected in interviews reflects

that all of the participants to varying levels experience effective and ineffective interactions, and that present to some degree in those interactions are indications of growth or fixed mindset. The data suggest that fixed mindset can contribute to interactions being ineffective, while growth mindset can contribute to interactions being effective. This includes growth mindset in interactions that are ineffective, where it may work to counteract the negative mindsets and/or behavior to restore effectiveness.

Conclusions

The results of the study support and build on existing research in the field of growth and fixed mindset. It was not surprising to find that the participants experience both growth and fixed mindsets since this has been previously established (Dweck, 1999, 2006). What the current study adds to the literature is a more nuanced understanding of how the mindsets influence high-level leaders' daily lives. It is significant because of the population from which the sample was drawn and because of the data that emerged from this specific sample regarding their overall predominance of growth mindset. It illuminates the possibility that experienced leaders with a predominant growth mindset are still affected by situational fixed mindset in ways that interfere with their effectiveness. This application of the mindset literature may be surprising to many who think of themselves as firmly in growth mindset given their roles and experience, producing additional insight into not only leadership development as it pertains to individual leaders, but organization design and development due to the potential impact leaders have on their spheres of influence, including systems and processes.

It is tempting to question the validity of the measures in predicting growth or fixed mindset given that all of the participants whose assessments indicated that they had

growth mindset also had fixed mindset indicators present in their interviews. However, there is another explanation: that of triggered fixed mindset. As Dweck (2006) describes, anyone can be susceptible to being triggered into a fixed mindset by situations that challenge one's identity or other closely-held ideas. Seen through this lens, the combined data provide a powerful observation—that experienced senior leaders who have a predominantly growth mindset do experience situational fixed mindset that then affects their ability to maintain effective interaction behavior, which they may or may not be able to rectify in the moment, depending on the intensity of the triggered fixed mindset. This also demonstrates that the mindset measures taken alone may not paint a complete picture of an individual's mindsets. The use of the standard measures in this scenario failed to account for participants' situational fixed-mindset orientations.

Overall, the findings suggest that leaders' mindsets (growth and fixed) do impact their interpersonal interactions, with direct ramifications on the effectiveness of those interactions. The ripple effects of these interactions vary according to the situation, but whether simply slowing a leader down as they fight negative self-talk or having negative repercussions on their relationships and endeavors, the occurrence of fixed mindset in these interactions is concerning. Conversely, the effectiveness demonstrated by either maintaining a growth mindset or having the wherewithal to summon one in response to the occurrence of fixed mindset or ineffective interaction behavior holds promise for empowering leaders to increase their overall effectiveness.

Recommendations

Awareness of mindsets may improve effectiveness. It is important for leaders to study and comprehend the mindsets, how the mindsets affect people, and how to

recognize when they are happening and why, so that they can cultivate self-awareness in this area—not unlike the idea of developing emotional intelligence. If leaders can understand themselves in this manner, their self-awareness can help them to stay in the realm of effective, rather than ineffective, interactions. Using the current sample as an example, improving their interactions from 75% effective to 90% effective could have significant beneficial impact on their areas of influence. In addition to the immediate benefits of improving in-the-moment interactions, self-awareness in this area may also assist with how a triggered fixed mindset affects their inner worlds both leading up to and following difficult or potentially ineffective interactions. For instance, if a leader must interact with another high-level leader with whom they've had difficulty communicating in the past, anchoring in situational fixed mindset (believing that things cannot change, feeling personally triggered into questions of confidence or competence) may lead to behaviors like putting off/avoiding the interaction, overpreparing for the meeting, trying to control the interaction rather than be in dialogue, or digging in on their own views during the interaction. It could also lead them to dehumanize the other leader, assuming that the qualities in them that they find difficult encompass the whole of that other person – this can cut the leader off from empathy and understanding, missing out not only on developing the relationship, but also the other person's insights and the potential synergy that could come from combining views. Whereas, tapping into a growth mindset could produce a willingness to be open, to find ways to connect and build the relationship, and to see the connection as an opportunity for learning and improvement.

Understanding of human behavior should include the mindsets. In addition to individual leaders cultivating self-awareness and effective behaviors with regards to

growth and fixed mindset, organizations, as well as organization and leadership development professionals, should recognize these foundational aspects of human behavior and be cognizant of the effects the mindsets can have. Growth and fixed mindset are two sides of a basic filter for information that all people have, which can produce radically different approaches to themselves, their opinions of others, their work, and how they approach learning and challenges (e.g., Dweck et al., 1993; Dweck et al., 1995, Dweck & Leggett, 1988; Gregory & Levy, 2011; Heslin et al., 2005; Levy et al., 1998). As organizations seek to improve anywhere along these lines (collaboration and teamwork, innovation, becoming a learning organization, adopting a more agile capability), if they do not take into consideration this foundational piece of how humans behave, they could be missing a critical piece of information to explain areas of misalignment with goals (e.g., why there is a seemingly intractable culture of conflict in a team, why the performance appraisal system is producing employee dissatisfaction). Especially considering research showing that the organization itself can embody a growth or fixed mindset (Murphy & Dweck, 2010), what factors can be introduced into an organization to create a growth mindset culture?

Include mindset concepts in leadership development. Organizations should include education and awareness-building on growth and fixed mindset alongside other efforts such as personality assessments, emotional intelligence, resilience, etc. Dweck (2006) has shared that fluctuating between mindsets is normal human behavior, and that there are things that can be done to tip the scales toward growth mindset. This study suggests that there may be an accompanying improvement in effectiveness, and organizations should take steps to benefit from this.

Mindsets potentially impact organization design. Lastly, at the organization level, leaders and organization development professionals should examine the organization design components and organizational culture as they relate to cultivating growth mindset within the organization and among leaders. How are leaders rated and rewarded? How are meetings designed? For what do leaders receive praise? What is the response when differing opinions are expressed? Do all of these encourage and reinforce that mistakes are a part of learning? What about the culture – does the organization prize project deadlines over leaders raising issues that could create an imperfect record for the company? Additionally, organization development professionals can look for ways in which the organization is expecting perfection from leaders and work to change the systems to encourage a learning and growth mindset. Though it may seem contradictory, organizations should also work to set expectations that leaders must strive to be more effective and cultivate a growth mindset, and give them the tools to do so (e.g., training, coaching or mentorship, and support from their leaders and the organization’s systems). It is not that fixed mindsets should be eradicated; this would be impossible and is not the issue. The goal is to create an environment where setbacks are a part of learning, and where leaders know they are supported in overcoming setbacks, including in interpersonal interactions. Normalizing the imperfection and disconnecting it from leaders’ worth may seem like it would encourage mediocrity, but it can have the opposite effect: leaders feeling safe to fail and therefore developing the ability to recover much more quickly, learn from what happened, and apply those learnings to the benefit of the company. This concept dovetails with an idea garnering attention in recent years, that of Deliberately Developmental Organizations, which are “committed to developing *every*

one of their people by weaving personal growth into daily work” (Kegan, Lahey, Fleming, & Miller, 2014, p. 46), bringing new meaning to the term ‘learning organization.’

Limitations of Study

There were four limitations in this study. First, there was a small sample size, consisting of people with a generally high level of maturity. While this was intentional for the purposes of this study (to discern if highly successful leaders were impacted by the mindsets), the group had a fairly uniform perspective. Many of the participants in the study had a lot of education and practical experience developing strong self-awareness and emotional intelligence, which may contribute to their ability to tap into the growth mindset. This does not necessarily represent a true cross section of mindsets within the leadership arena.

Second, there was a predominance of growth mindsets within the sample. Beneficially, this yielded the interesting observation that growth mindset generally-speaking does not necessarily spare someone from being hampered by fixed mindset in important moments. However, it did not account for people whose mindset is predominantly fixed and how that would affect the same questions about effective and ineffective interactions.

Third, one subset of data, that of defining effective and ineffective interactions, was limited in that generally there were fewer specific items listed for ineffective interactions (versus effective ones). One possible reason is that participants may have taken as a given that the opposite of what they listed for effective interactions was

implied, resulting in the definition of ineffective interactions being not as descriptive as the definition for effective interactions.

Fourth is the limitation of the design itself, relying on short interviews to determine participants internal mindsets. While the data did produce a fairly consistent set of themes across the sample, suggesting validity, the validity could have been increased by including some method of participant feedback on the findings, often a component of qualitative research (Maxwell, 2013).

Areas for Further Research

Six areas of potential future research were identified. First, expanding and diversifying the sample would be beneficial to understanding a broader selection of viewpoints regarding both effective and ineffective interactions and growth and fixed mindset behaviors. This includes ensuring that the final sample represents both people who have a general/overall fixed mindset in addition to people who have a general/overall growth mindset. There may be more to understand about how people with a general/overall fixed mindset think about workplace interactions and how they respond in the same kinds of examples as were provided by the current sample.

Second, to counteract the limitation of having to tease out the nuances of fixed and growth mindset from among other psycho-emotional phenomena, it is recommended that studies of this nature be spread out over a longer timeframe and incorporate feedback from participants. For instance, action research paired with an educational component could help participants understand what to look for and they could then provide more nuanced data. Another aspect that could be added is looking at learning and practice interventions in order to understand what kinds of programs organizations could

implement to help leaders develop growth mindsets, as well as understand what effect this may or may not have on business operations.

Third, future research could expand the range of subtopics under growth and fixed mindset as they relate to leaders (beyond interactions). Potential areas of research include the mindsets and collaboration, project planning, and decision-making (staffing, business decisions, allocation of resources, choosing vendor products, etc.).

Fourth, while the current mindset measures developed and validated by Dweck and her colleagues have proven themselves many times over in the literature regarding growth and fixed mindset, they may not be nuanced enough if trying to understand how triggered fixed mindset presents itself. Additional measures may need to be developed in order to help people understand and identify situational fixed or growth mindset.

Fifth, leaders' effectiveness does not only apply to when they are interacting with others, but also in their own work. How do these ineffective interactions and subsequent self-doubt/second-guessing affect their work and how they approach future interactions? What are the effects/long-term impacts of the mindsets over a career?

Sixth, examining growth mindset rates in women leaders (compared to their male peers) may deserve further attention. Though the findings in the current study—that the three participants who scored as fixed-mindset-oriented were women—were so slight as to be inconclusive, taken together with the history of the literature there may be a compelling enough reason to examine further. Much of Dweck and others' work in this field centers around the higher prevalence of helpless orientation in girls versus boys past a certain grade level, where girls are much more likely to exhibit fixed mindset in relation to their own capabilities (Dweck & Bush, 1976; Dweck & Gilliard, 1975; Dweck et al.,

1978; Dweck et al., 1980). It may be warranted to examine if and how this pattern affects women in the workplace.

Lastly, though it is not a direct contribution to the area of growth and fixed mindset, the findings related to the definition of effective and ineffective interactions may be a contribution in the area of communication and organization effectiveness. Further research relating effective interactions to multiple other topics may be warranted.

Summary

As a foundational filter for how people experience themselves and the world around them, growth and fixed mindset permeate all human endeavors. Understanding how these concepts affect organizational life is important, especially at the leader level since leaders are so influential over both the people they lead and the decisions they make regarding the business. Leaders, organizations, and organization and leadership development professionals should elevate their awareness of these mindsets and the potential implications of the mindsets in the work they do.

The present study sought to better understand one facet of this: how high-level leaders' internal growth or fixed mindsets affect their behavior in interpersonal interactions with others. It addressed the question: What is the effect of a leader's mindset on their interactions with others? The findings suggested that leaders' mindsets do significantly affect their interactions with others, both positively and negatively, and that growth mindset can lead to effective interactions, while fixed mindset can lead to ineffective interactions. Also, this study demonstrated that leaders who have a general/overall growth-mindset orientation may still experience episodes of situational fixed mindset that may detract from their effectiveness.

The findings of the present study suggest that further research opportunities in this vein are rich and warranted, and that individuals, organizations, and organization and leadership development professionals should incorporate knowledge and awareness of growth and fixed mindset into their understanding of human behavior in order to improve their effectiveness and align their organizations to best practices that will cultivate and benefit from growth mindset.

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Appendix A: Growth and Fixed Mindset Measures

Participants will complete the self-assessment via a Qualtrics survey using a Likert scale ranging from 1 to 6 (1 = strongly agree, 2 = agree, 3 = mostly agree, 4 = mostly disagree, 5 = disagree, 6 = strongly disagree) on each of the below measures.

Your intelligence is something about you that you can't change very much.
You can learn new things, but you can't really change how intelligent you are.
No matter how much intelligence you have, you can always change it quite a bit.
You can always substantially change how intelligent you are.
Your talent is something about you that you can't change very much.
You can learn new things, but you can't really change how talented you are.
No matter how much talent you have, you can always change it quite a bit.
You can always substantially change how talented you are.
Your potential is something about you that you can't change very much.
You can learn new things, but you can't really change how much potential you have.
No matter how much potential you have, you can always change it quite a bit.
You can always substantially change how much potential you have.
Your business skill is something about you that you can't change very much.
You can learn new things, but you can't really change how much skill in business you have.
No matter how much business skill you have, you can always change it quite a bit.
You can always substantially change how much skill in business you have.
Your leadership ability is something about you that you can't change very much.
You can learn new things, but you can't really change how leadership ability you have.
No matter how much leadership ability you have, you can always change it quite a bit.
You can always substantially change how much leadership ability you have.

These measures adapted from Carol S. Dweck, Sheri Levy, Valanne MacGyvers, C. Y. Chiu, and Ying-yi Hong (Dweck, 2006).

Appendix B: Interview Protocol

Interviewee (Participant #): _____

Date: _____

Introduction:

Welcome and thank you very much for your time and participation. I'm going to explain a bit about the interview, and then we'll get started.

First, I want to remind you that this interview is completely confidential, and no information will be attributed to you in my study. Also that while I will record our conversation and be taking notes, these also are confidential and will be securely stored. Further, I'm not going to use your name in either my notes or the recording – we will use your participant ID number. We have an hour scheduled for this, but it may not take that long, depending on how our conversation goes. Do you have questions about any of this so far?

A little bit about this study. This study is looking at how our mindsets may or may not affect how we navigate our daily lives as leaders. The interview questions will specifically look at our interactions with others. This can apply to interactions in meetings, one-on-ones, chance encounters in the hallway, etc., and between you and your direct reports (if you have them), your peers/colleagues, and leaders more senior in the organization than you – any interaction. What I am really trying to understand is your personal experience during these interactions, which I know might feel shy to talk about.

As we talk about interactions, I'm going to ask you about your own perspective and experience of your side of the interactions. So I will be asking you to describe situations and then what was going on for you during those situations.

With that said, do you feel comfortable to continue? Do you have any questions before we begin?

Questions:

Tell me about yourself. How long have you been in your role? How long have you been in roles at the director level or above? What do you like best about being in your role?

Interviewee (Participant #): _____

Date: _____

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First, I'd like to establish some definitions that we can rely on for the rest of the interview. So I would like to understand, how do you define effective interactions? How about ineffective ones? (What characterizes each?)

In general, how would you describe the interactions that you have in your role? With your direct reports? With your colleagues and your leaders?

Think of a time recently when you felt that you were particularly effective during an interaction. Describe the situation.

Probing question:

- Now, can you describe what was going on for you internally during this situation – what was your inner voice/self-talk doing? How did you feel about yourself?

How would you describe your personal experience of ineffective interactions? Can you think of a recent example, particularly where you felt you could have handled it better? Describe the situation.

Probing question:

- Now, can you describe what was going on for you internally during this situation – what was your inner voice/self-talk doing? How did you feel about yourself?

Can you think of a time where you started off fine in an interaction and then your handling of it deteriorated? Describe the situation.

Probing question:

- Now, can you describe what was going on for you internally during this situation – what was your inner voice/self-talk doing? How did you feel about yourself?
- Maybe: something about overall thoughts of this experience or ones like it, how often does this happen, etc.
- Maybe: did this used to happen and what did you do to overcome it?

Maybe: What are the impacts of both of these situations on you? (Personally? On your relationships? On your work?)

-NOT USED-

When you have an interaction that you feel is effective vs. ineffective, is there any distinction you notice either in your attitude or approach (external) or your self-talk/inner world that makes it so? (Prompt: tell me more...)

Think about the best, most effective interactions you've had during challenging times. Think about how you were during those interactions – the way you showed up, how you felt, what you were thinking internally. To what would you attribute the interactions going so well? What makes the difference?

Interviewee (Participant #): _____

Date: _____

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[Closing question] Is there anything else you would like to tell me about effective and ineffective interactions?

CLOSE:

- I appreciate your time and participation, and the trust you extended to me in having this conversation. Thank you!
- The next steps are that I will complete my thesis in the next 1-2 months. There is nothing else required of you.
- I can provide you an executive summary of the conclusions from the thesis if you would like? Y / N
- If you have any concerns going forward, please don't hesitate to contact me.
- Are there any other questions you have for me now?