

LEADING IN AN UNPRECEDENTED GLOBAL CRISIS: THE HEIGHTENED IMPORTANCE OF VERSATILITY

Robert B. Kaiser

Kaiser Leadership Solutions, Greensboro, North Carolina

Recent discussions of organizational performance have emphasized growing complexity and an accelerating pace of change and have called for new models of leadership for managing the paradoxes and dilemmas that they pose. The coronavirus/COVID-19 pandemic amplified these dynamics and created an opportunity to examine one of the newer models by comparing the effects of versatile leadership in precrisis and crisis conditions in a field study using a quasi-experimental design with matched samples. The results indicated strong positive relationships between versatile leadership and multiple measures of effectiveness in both conditions but showed significantly stronger relationships with team adaptability, team productivity, and overall effectiveness in the crisis condition. The implications of these findings are considered for leaders, organizations, and the professionals who study and advise them about dealing with crises specifically and with the paradoxical demands of disruptive change in general.

What's It Mean? Implications for Consulting Psychology


There is a growing belief that new models of leadership are needed to handle increasing complexity; fast-paced, disruptive change; and the paradoxical challenges they pose. This research examined one of these newer models and demonstrated how versatile leadership is empirically related to multiple indicators of leadership effectiveness and especially to team adaptability and productivity in the extraordinary circumstances of the COVID-19 pandemic.

Keywords: leadership, versatility, versatile leadership, crisis, paradox

The coronavirus/COVID-19 pandemic has created disruption unlike anything experienced in the past hundred years. The threats posed to public health and the global economy are unprecedented and have upended business (and life) as usual, with social and economic aftereffects expected for years to come. Of course, in times of crisis, people look to leaders for hope and the way forward.

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Robert B. Kaiser is the president of Kaiser Leadership Solutions. He also has a commercial interest in the Leadership Versatility Index, which was used in the research reported in this article.

Correspondence concerning this article should be addressed to  Robert B. Kaiser, Kaiser Leadership Solutions, 1903-G Ashwood Court, Greensboro, NC 27455. E-mail: rob@kaiserleadership.com

The media has provided accounts of leadership during the pandemic—from reassuringly effective examples to astonishingly inept ones. Additionally, the leadership industry has provided a great deal of advice and numerous recommendations for how to lead in this trying time, offering a flood of articles, posts, and videos in management publications and social media.

This article reports on a study that compared data collected before the pandemic to data collected during it in order to gain a better understanding of the role of versatile leadership in highly disruptive environments. The central questions were twofold. First, were the effects of versatile leadership greater in the crisis compared to the precrisis context? Second, was versatile leadership less common amid the added stress and intensity of the crisis?

The article is organized as follows. First is a review of theory and research on leadership in complex, fast-changing environments fraught with conflicting demands—with a focus on crisis in particular. Next, hypotheses are developed that suggest versatile leadership is crucial, yet made especially difficult, in a crisis. Then, an opportunity to test these hypotheses with a quasi-experimental field study is described. After documenting the research methodology and results, there is discussion of the implications for leaders, organizations, and the professionals who study and advise them about dealing with the paradoxical demands of disruptive change.

Leadership in Complex, Disruptive Change

Recent discussions of leadership and organizational performance have emphasized two themes: growing complexity and an accelerating pace of change. Dramatic rises in digital technology, economic globalization, and cultural diversity have created a more interconnected yet turbulent landscape. A vocabulary for characterizing this challenging environment has become common, with terms such as *VUCA* (volatility, uncertainty, complexity, and ambiguity; R. Johansen, 2007), *black swans* (Taleb, 2007), *paradox* (J. H. Johansen, 2018; Jules & Good, 2014), and *disruption* (Christensen, 1997). New organizational imperatives for adapting to fast, unrelenting, and unpredictable change have suggested a greater need for leadership that is variously labeled as *flexible* (Norton, 2010; Yukl & Mahsud, 2010), *paradoxical* (Zhang, Waldman, Han, & Li, 2015), and *versatile* (Kaplan & Kaiser, 2006) to meet the challenges posed by increasing complexity, unexpected threats, shifting market conditions, novel social dynamics, and unforeseen existential pressures.

Organizational Complexity, Conflicting Demands, and Leadership

Models of flexible, paradoxical, and versatile leadership have roots in complexity theories of organizations and the need to optimize performance across a range of sometimes conflicting requirements (Kaiser & Overfield, 2010). The competing values framework (Quinn, 1988) is one such seminal theory that views organizational performance from four distinct and seemingly contradictory perspectives, each with its own primary function. The rational-goal perspective emphasizes efficient productivity, whereas the human-relations perspective emphasizes employee well-being, motivation, and development. The internal-process perspective emphasizes stability and continuity, whereas the open-systems perspective emphasizes change and innovation. Each of these functions is necessary for organizational performance, although their relative importance may vary over time and circumstances. Further, the competing values framework assumes a central role for leadership in ensuring that these functions are performed, balanced, and adjusted in proportion to changes in the environment (cf. Smith & Lewis, 2011).

More recent models of polarities, paradoxes, and dilemmas similarly describe the leadership challenge in reconciling conflicting priorities and needs (J. H. Johansen, 2018; Johnson, 2020; Jules & Good, 2014; Smith & Lewis, 2011). These models distinguish between (a) problems that involve choosing among alternatives and (b) problems that involve persistent and interrelated trade-offs. Whereas the former can be solved with a binary choice, the latter is more akin to simultaneously solving differential equations. Examples include global-local, quality-price, and people-profits. A defining feature of polarities and dilemmas is that maximizing one goal will inevitably undermine

the other. Instead, both sides need to be optimized in an ongoing effort to manage a *dynamic equilibrium* (Smith & Lewis, 2011): a relative balance over time that requires continuous, active adjustment. In the best case, organizations find creative ways to leverage the interdependence with solutions that simultaneously advance conflicting but connected goals (J. H. Johansen, 2018; Johnson, 2020; Jules & Good, 2014; Smith & Lewis, 2011).

Complexity and paradox theories of leadership rest on the idea that organizations consist of many different parts that interact in a dynamic environment and on the cybernetic principle of requisite variety (Ashby, 1952), which holds that a regulator can only manage a system to the extent it is capable of the range of responses needed to address the diversity of problems in that system (Jaques, 1998). The implication is that leaders need a wide, nuanced repertoire of perspectives, skills, and behaviors in order to deal with organizational complexity, constant change, and the dilemmas that these conditions pose (Denison, Hooijberg, & Quinn, 1995; Kaiser, Lindberg, & Craig, 2007; K. A. Lawrence, Lenk, & Quinn, 2009).

Leadership models in this tradition have embraced a more holistic and integrative view of leader behavior to provide a better understanding of the breadth of a leader's repertoire. Whereas commonly used competency models tend to provide lists of discreet behaviors and skills in isolation from one another (Norton, 2010), models such as behavioral complexity (K. A. Lawrence et al., 2009), paradoxical leadership (Zhang et al., 2015), and versatile leadership (Kaplan & Kaiser, 2006) define leadership in terms of complementary pairs of behaviors, emphasizing the seemingly contradictory nature of each pair and the difficulty of mastering both.

These newer approaches posit that effective leadership requires an integration of opposing behaviors and the ability to skillfully apply them as dictated by changing circumstances and competing goals (Denison et al., 1995; Kaiser & Overfield, 2010; Zhang et al., 2015)—for instance, (a) the ability to zoom out and make sense of change in terms of the strategic big picture and (b) the ability to zoom in on the tactical details for responding to it or (a) the ability to use decisive authority to establish clarity and direction and (b) the ability to use participation and empowerment to involve and motivate others. However, the focus of these models is less on the specific behaviors and more on the integrative capacity to develop skills across them. The behaviors are, of course, important, but the primary emphasis is on the higher-order ability to cultivate and utilize a differentiated yet tightly integrated repertoire (Norton, 2010). Research in this vein has provided empirical support for the proposition that leaders who have a broader repertoire of opposing and complementary behaviors are generally more effective, especially in complex systems undergoing turbulent change (Denison et al., 1995; Kaiser & Overfield, 2010; K. A. Lawrence et al., 2009; Psychogios & Garev, 2012; Zaccaro, 2001; Zhang et al., 2015).

Crisis Leadership

The pandemic has amplified the challenges in the modern organizational context; it doesn't get much more VUCA than the COVID-19 crisis. A crisis can be defined as "a specific, unexpected, and non-routine event or series of events that create high levels of uncertainty and threaten . . . an organization's high priority goals" (Ulmer, Sellnow, & Seeger, 2007, p. 7). Crises are notable for their shock and stress to both people and operating procedures (Pauchant & Mitroff, 1990). Further, humans are disposed to seek leadership in times of confusion, chaos, and threat as an adaptive solution for coordinating a collective response (Van Vugt, Hogan, & Kaiser, 2008). Accordingly, there is a large body of theory and research on leading in a crisis (see summaries in Blythe, 2014; DuBrin, 2013; Howitt & Leonard, 2009; Klann, 2003; Ulmer et al., 2007).

A review of this literature points to several paradoxical roles, functions, and behaviors required for leading effectively through calamitous events. For instance, whether an organization survives a crisis is determined less by the severity of the crisis than by the timeliness and effectiveness of the response (Garcia, 2006; Mitroff, 2005). This puts a premium on decisive leadership and making quick decisions with incomplete information (DuBrin, 2013; Howitt & Leonard, 2009) as well as decision processes that include input from diverse sources in order

to promote higher-quality solutions, which can also slow down a response (Boin, Kuipers, & Overdijk, 2013; Klann, 2003).

Similarly, crises are distinguished by significant novelty, such as unfamiliar problems or familiar problems at unprecedented scale, and leaders are encouraged to improvise with new, innovative solutions (Heifetz & Linsky, 2002; Howitt & Leonard, 2009). Yet leaders are also advised to provide stability to counteract sudden jolts with a sense of predictability, thereby enabling traction and forward momentum (Pulakos, Kantrowitz, & Schneider, 2019). Tensions exist in other paradoxical priorities and prescriptions for leading in a crisis, including taking personal responsibility for addressing threats while also empowering others to help shoulder the load, providing encouragement and optimism to keep hope alive while also using facts to make a realistic appraisal of the evolving threat, and implementing cost-control measures to ensure economic survival while maintaining the resources needed to recover and bounce back in a strong position (Blythe, 2014; Boin et al., 2013; Howitt & Leonard, 2009; Rajah & Arvey, 2013). In addition, and especially in a health crisis like the COVID-19 pandemic, leaders are urged to show empathy by attending to peoples' safety, security, and emotional needs as well as to be practical in meeting their task-related needs in getting work done (Meisler, Vigoda-Gadot, & Drory, 2013)—for instance, adjusting to virtual collaboration and the infrastructure and coordination it requires.

However, research conducted in “normal” times has suggested that many people in leadership positions lack the cognitive complexity needed to hold conflicting points of view in mind and the behavioral complexity needed to perform a number of opposing but complementary roles in a coherent and integrated way (Denison et al., 1995; Kaiser, 2020a). Researchers acknowledge that crises present so many urgent, interrelated, and competing problems that leaders can be overwhelmed (Blythe, 2014; Mitroff, Alpaslan, & Green, 2004). Thus, there is likely to be great variability in how effectively leaders respond to a crisis, with many struggling to handle all of the essential functions and few able to meet the variety of paradoxical needs of an organization under duress.

Hypotheses

The current study compared leadership in the early stages of the COVID-19 crisis to the year prior. Although there are a number of recent frameworks for conceptualizing leadership that is broad, complex, and flexible enough to deal with competing organizational needs in a crisis situation, the current study used the theory of versatile leadership (Kaiser, 2020a; Kaplan & Kaiser, 2006) because of the availability of data from an instrument based on it, the Leadership Versatility Index (LVI). Versatile leadership is conceptually similar to models such as paradoxical leadership and behavioral complexity in that it too is focused on the coherent integration and effective utilization of opposing yet complementary behaviors. There are also empirical correlations between versatility as measured by the LVI and measures of leadership flexibility and behavioral complexity that affirm these conceptual similarities (Kaiser et al., 2007).

Versatility is defined as the ability to read and respond to change with a wide repertoire of complementary perspectives, skills, and behaviors (Kaiser, 2020a). Versatile leadership reflects a dynamically balanced, integrated, and appropriate use of two pairs of complementary categories of behaviors: *How* one leads, in terms of interpersonal style and influencing people, is represented by the combination of forceful and enabling behaviors, and *what* one leads, in terms of organizational focus, is represented by the combination of strategic and operational behaviors (Kaiser, McGinnis, & Overfield, 2012).

As the preceding literature review indicated, the complexity, pace, and unpredictability of the modern operating environment makes versatile leadership important to organizational performance. Theories of crisis leadership also identify the importance of flexibility as situations unfold and new information requires leaders and organizations to continuously adapt to changing conditions (Boin et al., 2013; Howitt & Leonard, 2009; Klann, 2003). In a crisis, leadership is needed to meet many of the same competing demands as in less turbulent times. However, the urgency and intensity of a crisis speed up the interplay of paradoxical demands, and the ambiguity and time pressure can

make it even more difficult to recognize how they affect each other (Blythe, 2014; Boin et al., 2013; Mitroff et al., 2004). Crises also present several, often novel problems that must be resolved quickly and simultaneously. Therefore, it was expected that versatile leadership would be related to indices of leadership effectiveness including employee engagement, team resilience and adaptability, and unit productivity both in normal times and during a crisis. However, the first hypothesis was that versatility would be more highly related to leadership effectiveness during the COVID-19 crisis than before it.

Another way in which a crisis makes an already-VUCA world even more difficult is through increased stress. Threats, destabilizing forces, and ambiguity increase pressure on everyone in a crisis, including people in leadership positions who have responsibility for managing others as well as organizational resources and performance. Crisis researchers have pointed out how the sheer volume and variety of critical needs, competing priorities, and uncertainty create a great deal of stress for leaders (Blythe, 2014; Howitt & Leonard, 2009). A well-established psychological principle holds that some degree of pressure is needed for optimal performance, but as pressure increases beyond a certain point, performance decreases (Yerkes & Dodson, 1908). Extreme stress has a negative effect on the judgment and behavior of leaders because it narrows their attention to immediate, self-protective regulatory processes at the expense of broader organizational matters (Fiedler & Garcia, 1987; Harms, Credé, Tynan, Leon, & Jeung, 2017). These stress-induced effects make it harder for leaders to make sense of ambiguous, rapidly changing conditions and to respond with versatility. Therefore, the second hypothesis was that there would be less versatile leadership during the COVID-19 crisis than before it.

Method

The data were drawn from six different organizations that routinely use the LVI as a 360-degree-feedback instrument for various leadership-development initiatives. New LVI surveys were administered after the COVID-19 outbreak, creating an opportunity to compare results in the early stages of the pandemic to results in the same organizations before the pandemic. Thus, this study employed a quasi-experimental design in a field setting (Grant & Wall, 2009).

Sample

Participants were selected for the crisis condition if their 360 surveys were begun after April 11, 2020—a month following the World Health Organization's (WHO) declaration of a global pandemic on March 11, 2020 ("WHO Director-General," 2020)—and completed by June 5, 2020. Although there is no prior research to suggest how much time is needed for raters to observe leaders in a crisis, it seemed reasonable to assume that ratings in this intense timeframe would be heavily influenced by perceptions of leader behavior in the extraordinary circumstances of the pandemic. COVID-19 had begun affecting organizations well before the WHO's declaration—state departments in the United States had begun raising concerns in early February 2020, and the Dow Jones Industrial Average dropped over 12% by the end of the month (Lipton et al., 2020). Further, each of the sample organizations faced significant immediate pressures, including supply-chain problems, reduced customer demand, financial hardship, adjusting to telework, and being based in large metropolitan centers with high rates of coronavirus infections that created an imminent health threat.

A matched sample was assembled for the comparison group, a technique for strengthening field research designs by minimizing the potential influence of confounds and extraneous differences between the two samples (Breugh & Arnold, 2007; Shadish, Cook, & Campbell, 2002; Steiner, Cook, Shadish, & Clark, 2010). First, all leaders who were rated during the pandemic by their manager, peers, and direct reports were selected. Next, for each leader in the crisis condition, a comparable leader was selected from the same organization who had been rated by their manager, peers, and direct reports in the calendar year of 2019—up to a full year before the pandemic began

Table 1
Demographic Composition of the Precrisis and Crisis Samples

Demographic variable	Precrisis		Crisis	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Age	43.36	7.27	43.19	8.12
Management experience (years)	13.38	7.76	13.29	7.41
Tenure (years)	3.52	3.44	3.66	3.71
	<i>N</i>		<i>N</i>	
Organizational level				
Executive	69		68	
Director	59		58	
Manager	65		67	
Gender identity				
Female	71		68	
Male	122		125	

to affect organizations—and who had a similar profile in terms of organizational level, tenure in current role, years of management experience, age, and gender identity.¹

The final sample included data for 386 leaders, 193 each in the precrisis and crisis conditions. The organizations included three in the technology industry ($n_s = 48, 56,$ and 68), two in financial services ($n_s = 80$ and 82), and one in professional services ($n = 52$). All organizations were large corporations with headquarters in the United States. A summary of the demographic composition of the two samples is provided in Table 1.²

Measures

Leadership versatility. Versatility was measured with the LVI Version 5 (Kaiser, 2020b), which has been extensively researched with evidence for its reliability and validity as a psychometrically sound measure of leadership (Staal, 2008; Vassar, 2008). The LVI contains four primary scales representing forceful, enabling, strategic, and operational categories of behavior, with 12 items each. Each primary scale is composed of three 4-item subscales for a total of 12 subscales and 48 items. Although LVI items are rated one at a time, they were written in pairs to reflect complementary behaviors. For instance, the forceful item “Decisive—makes up their mind quickly” is paired with the enabling item “Participative—includes people in making decisions.” Each forceful item has a complementary enabling item; each strategic item has a complementary operational item.

LVI items are rated on a unique scale ranging from -3 (*much too little*) to 0 (*right amount*) to $+3$ (*much too much*). Prior research shows that this scale distinguishes doing a lot of a behavior from doing an excessive amount of it, which are often confounded in conventional 5-point rating scales (Vergauwe, Wille, Hofmans, Kaiser, & De Fruyt, 2017), and that this distinction is key to measuring versatility as the integration of opposing but complementary leadership behaviors (Kaiser et al., 2007; Kaiser & Overfield, 2010). The assessment framework, including definitions for the four behavior categories and their subdimensions, as well as the rating scale, is depicted in Figure 1.

¹As an anonymous reviewer pointed out, choosing a cutoff date to define the precrisis and crisis conditions is somewhat arbitrary. Thus, a conservative approach was used by selecting leaders rated between April 11, 2020, and June 5, 2020, for the crisis condition and selecting leaders rated in 2019 for the precrisis condition. This strategy also excluded leaders rated between January 1, 2020, and April 10, 2020, because it was unclear to what extent the pandemic had affected them, their organizations, and their coworkers.

²Due to the large sample requirements of analyses for comparing differences in statistical relationships between different groups, I was unable to conduct meaningful analyses based on the demographic variables (e.g., comparing results for different organizations or for male versus female leaders).

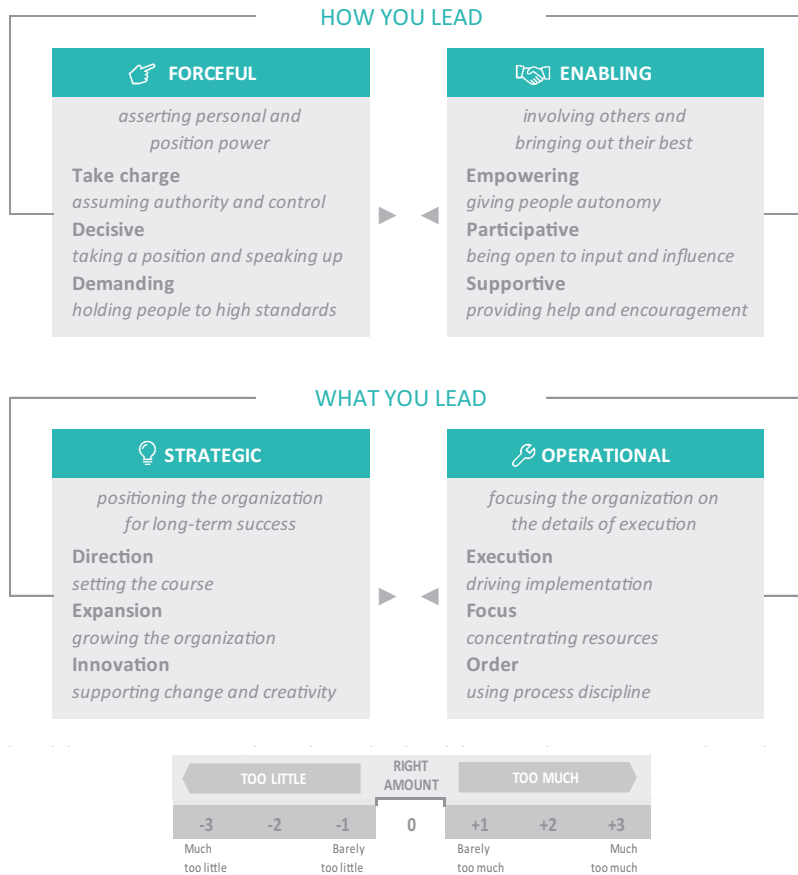


Figure 1. Assessment framework for the Leadership Versatility Index. See the online article for the color version of this figure.

Ratings of the 48 behavior items were combined to produce an overall measure of versatile leadership using a procedure validated in prior research (Kaiser et al., 2007; Kaiser & Overfield, 2010) and explained in the Appendix. In short, this procedure relies on geometry and arithmetic to produce a score ranging from 0% to 100% for each pair of items, with higher scores representing the extent to which both items were rated *right amount*. Then, these scores are aggregated across the 12 pairs of forceful and enabling items and the 12 pairs of strategic and operational items to produce an overall score. Research shows that this method of measuring versatile leadership as a higher-order integration of opposing but complementary behaviors demonstrates convergent validity with distinctly different methods of measuring similar constructs (Kaiser et al., 2007), including a flexibility competency and behavioral complexity as operationalized in the competing values framework (Quinn, Spreitzer, & Hart, 1992).

Versatility scores were calculated for each leader by first computing the average across raters within the manager, peer, and direct-report groups separately and then computing the grand mean across the three groups. Thus, each rater group contributes equally to the leadership-versatility score. Research has demonstrated that the most valid and reliable view of leader behavior reflects a composite of ratings from the manager, peer, and direct-report perspectives; this is because they have different opportunities to observe various aspects of performance, and aggregating across the full circle of coworkers provides for a more complete representation of leader behavior than ratings from any one perspective alone (Lance, Hoffman, Gentry, & Baranik, 2008; Oh & Berry, 2009).

Ratings from a total of 4,388 coworkers—including 585 managers, 1,901 peers, and 1,902 direct reports—were used to calculate versatility scores. To justify aggregation, the degree of rating similarity both within and across rater groups was examined (LeBreton & Senter, 2008). For each rater group and the aggregation across groups, interrater agreement was calculated using the $r_{wg(j)}$ statistic (James, Demaree, & Wolf, 1984), and interrater reliability was calculated using intraclass correlations (ICCs) from a one-way random-effects analysis of variance to estimate the reliability of the average rating (McGraw & Wong, 1996) for the median number of raters within each group—two for manager, five for peer, five for direct report, and three groups for the aggregated score used in the analyses. The mean within-group $r_{wg(j)}$ values ranged from .89 to .94, and the ICC values ranged from .54 to .60. The mean $r_{wg(j)}$ and ICC values for the scores aggregated across rater groups were .92 and .66, respectively, which meet recommended standards (Bliese, 1998; LeBreton & Senter, 2008). The internal consistency reliability (α) of the aggregated versatile-leadership scale used in the analyses was .96.

Leadership effectiveness. Four conceptually and empirically distinct variables were used to measure different facets of leadership effectiveness. An overall evaluation of perceived effectiveness was based on coworker ratings to the item, “Please provide a rating of this person’s overall effectiveness as a leader on a 10-point scale, where five is adequate and ten is outstanding.” Ratings were first aggregated within manager, peer, and direct-report groups separately, and the final score was calculated as the grand mean across the three groups. Mean r_{wg} and ICC values for the aggregated overall effectiveness scores were .92 and .73, respectively.

Employee engagement was measured with direct-report ratings on a response scale ranging from 1 to 5 for two survey items: one about the level of morale and the other about the degree of engagement with the work among “the members of the team for which the leader is directly responsible.” Mean $r_{wg(j)}$ and ICC values were .76 and .68, respectively, and the internal consistency reliability (α) was .85 for the employee engagement scale.

Team adaptability was measured with direct-report ratings on a response scale ranging from 1 to 5 for three survey items about the extent to which “the team for which the leader is directly responsible” engages in collective behavior to deal with disruptions to normal operating procedures. The three items concern how well a team responds when things do not go as planned, when unexpected problems come up, and when faced with new and unfamiliar challenges. Mean $r_{wg(j)}$ and ICC values were .83 and .66, respectively, and the internal consistency reliability (α) was .83 for the team-adaptability scale.

Team productivity was measured with ratings made by the leaders’ manager(s) on a response scale ranging from 1 to 5 for three survey items concerning the productivity of “the team for which the leader is directly responsible” in terms of its quantity, quality, and timeliness of output. Mean $r_{wg(j)}$ and ICC values, based on calculations for leaders who had two or more manager ratings, were .89 and .64, respectively, and the internal consistency reliability (α) was .84 for the team-productivity scale.

Validity evidence, in the form of correlations with other scales measuring similar constructs, has previously been reported for the overall effectiveness, employee engagement, and team-productivity scales (Kaiser, Overfield, & Kaplan 2010). Because the team-adaptability scale was new, we conducted a principal components analysis with varimax rotation of the nine items used to measure the four variables of leadership effectiveness. The scree plot suggested four distinct components with an elbow between the fourth and fifth eigenvalue and each item loaded highest on the intended component (and minimally on the others), providing convergent and discriminant validity evidence for the four measures (see Table 2).

Descriptive statistics, reliabilities, and correlations for all study variables are presented in Table 3. The means and standard deviations for all study variables are presented separately for the two conditions in Table 4. An assumption of the research design and statistical analyses used to test the hypotheses is that the distributions of scores are comparable in the precrisis and crisis conditions, particularly with respect to variability. Levene’s test for homogeneity of variance was nonsignificant, and the variance ratios were between .8 and 1.25 for all five

Table 2
Leadership Effectiveness Item Loadings

Effectiveness item	Component				Extraction communality
	1	2	3	4	
Overall effectiveness	.18	.29	.29	.82	.88
Morale	.31	.04	.86	.13	.86
Engagement	.32	.06	.85	.15	.86
Things do not go as planned	.74	.20	.36	.04	.72
Unexpected problems come up	.86	.03	.14	.15	.78
Faced with unfamiliar challenges	.82	.07	.32	.10	.79
Quantity of output	.07	.91	.07	.07	.84
Quality of output	.11	.64	-.01	.35	.73
Timeliness of output	.09	.88	.06	.21	.84

Note. Bold values indicate primary loading.

variables (Steiner et al., 2010), indicating similar variability for each variable in the two conditions.³

Results

A moderated multiple regression (MMR; Aguinis, 2004) strategy was used to test the hypothesis that leadership versatility would be more strongly related to effectiveness during the crisis than before it. This technique is recommended in quasi-experimental designs that compare two conditions (Salkind, 2007); it involves predicting a dependent variable (in this case, one of the criteria for leadership effectiveness) from three independent variables: a predictor (leadership versatility), a dichotomous condition variable (coded 1 for precrisis and 2 for during the crisis), and the interaction between the two (the cross-product of leadership versatility times the condition variable). A significant positive effect for the Versatility \times Condition interaction term indicates that the relationship between leadership versatility and the effectiveness variable is reliably stronger in the crisis condition. As recommended by methodologists, the versatility scores and the four effectiveness scores were converted to Z-scores within the precrisis and crisis conditions to fully equate their means and variances in order to meet the assumptions of the statistical analysis (Aguinis, 2004).

Table 5 presents the results of the MMR analysis for each of the four effectiveness variables. The Versatility \times Condition interaction terms were significant and positive in three cases, indicating that the relationships with overall effectiveness, team adaptability, and team productivity were reliably stronger in the crisis condition. The interaction term was not significant for employee engagement.

In order to visualize the statistically significant differences in the relationships between leadership versatility and overall effectiveness, team adaptability, and team productivity, separate regressions were computed for the precrisis and crisis conditions using observed scores, and their regression lines were plotted (Aguinis, 2004). As shown in Figure 2, and consistent with the first hypothesis, the steeper slopes depict stronger relationships with versatile leadership during the crisis. The effects were greater at both extremes: Lower versatility had a stronger depressing effect and higher versatility had a stronger enhancing effect during the crisis.

To test the second hypothesis, a one-way analysis of variance was performed to compare differences in mean leadership-versatility scores. Although the average was slightly lower in the

³I thank an anonymous reviewer for recommending a test for the equality of variances on the study variables to rule out range restriction as an alternative explanation for the results reported below.

Table 3
Descriptive Statistics and Correlations for All Study Variables

Variable	<i>M</i>	<i>SD</i>	Leadership versatility	Overall effectiveness	Employee engagement	Team adaptability	Team productivity
Leadership versatility	82.0%	7.1%	(.96)				
Overall effectiveness	7.95	.72	.73	(.73)			
Employee engagement	3.90	.59	.41	.43	(.85)		
Team adaptability	3.76	.44	.42	.39	.63	(.83)	
Team productivity	3.83	.65	.39	.54	.18	.25	(.84)

Note. $N = 386$. Coefficients along the diagonal are internal consistency reliabilities (α), except for overall effectiveness, which is an intraclass correlation (ICC[2]). All correlations significant, $p < .001$.

crisis condition ($M = 81.7\%$; $SD = 7.5\%$) compared to the precrisis condition ($M = 82.4\%$; $SD = 6.6\%$), this difference was not statistically significant, $d = .10$, $F(1, 284) = .95$, $p = .33$. Versatility scores were also classified by quartiles relative to global norms. A chi-square test of differences in the proportion of leaders scoring in each quartile for the two conditions was similarly nonsignificant, $\chi^2(3, N = 386) = 4.03$, $p = .26$. Thus, the hypothesis that versatile leadership would be less prevalent during the crisis was not supported.

Discussion

Dramatic increases in complexity and an accelerating pace of change have created a greater need for versatile leadership in modern organizations. The purpose of this study was to test whether versatility played an even more decisive role, yet was less common, in the added complexity and ambiguity of the sudden disruption brought on by the COVID-19 pandemic. The results indicate a stronger role for versatility in leadership effectiveness, team adaptability, and team productivity but not in employee engagement during the crisis. There was also no support for the hypothesis that versatile leadership would be less common because of the added stress of the crisis. The main conclusion is that versatile leadership, consisting of a wide repertoire of complementary skills and behaviors appropriately applied to changing circumstances, is important for helping teams to adapt to unexpected change and continue to produce, especially in times of crisis and, by implication, perhaps in recovery and adjusting to the postpandemic world.

It is interesting to speculate why versatile leadership had a greater effect on team adaptability and productivity but not employee engagement during the crisis (although it is important to recognize that versatility was significantly related to engagement in both conditions—just not *more* related during the crisis). One possibility is that leadership may be more important for coordinating

Table 4
Means and Standard Deviations for All Study Variables in Each Condition

Variable	Condition			
	Precrisis		Crisis	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Leadership versatility	82.4%	6.6%	81.7%	7.5%
Overall effectiveness	8.02	.71	7.88	.74
Employee engagement	3.92	.57	3.88	.60
Team adaptability	3.78	.40	3.73	.44
Team productivity	3.89	.62	3.78	.68

Table 5
Results From Moderated Multiple Regression Analyses

Independent variable	Overall effectiveness (β)	Employee engagement (β)	Team adaptability (β)	Team productivity (β)
Crisis condition	.00	.00	.00	.00
Leadership versatility	.48***	.29*	-.10	-.09
Versatility \times Condition	.25*	.13	.57***	.48***
R^2	.52***	.17***	.22***	.16***
Adjusted R^2	.51***	.16***	.21***	.15***

Note. Crisis condition coded 1 = precrisis, 2 = during crisis.

* $p < .05$. *** $p < .001$.

a collective response to disruptive change than it is for employee motivation. Functional analyses of leadership emphasize its role as a resource for group survival and performance (Lord, 1977; Van Vugt et al., 2008). Further, although employee engagement is related to leadership, it is more highly related to individual differences among employees (Christian, Garza, & Slaughter, 2011). It is possible that the hindrances posed to employees by the stress and distraction of the pandemic—such as coping with threats to health and job security, adjusting to telework, juggling the demands of work and home life—reduced the vigor, absorption, and dedication available for work and weighed heavier on their engagement (Crawford, Lepine, & Rich, 2010), leaving little room for an incremental effect of leadership.

It is also curious that the additional stress, ambiguity, and complexity of the crisis was not associated with a significant decrease in versatile leadership. One possibility is that despite the attempt to match the samples in the precrisis and crisis conditions, there may have been a systematic difference where the leaders in the crisis condition had better coping skills to dampen the effects of the increased stress. A stronger test of this hypothesis would involve a within-subjects design—where the versatility of the same leaders is compared before and during the crisis. Another possibility is that the effects of stress may be stronger in amplifying how leader behavior influences team and organizational performance than in directly influencing leader behavior itself. It is often said that a crisis brings out the best and the worst in people, and these opposing dynamics may have cancelled each other out in the impact on leader behavior but magnified the impact of leader behavior on team performance. Further research will be needed to better understand the relations among stress, coping, and versatile leadership in a crisis.

The significant finding of a stronger role for versatile leadership in team performance and effectiveness in the extraordinary circumstances of an unprecedented global crisis has implications for leadership theory, research, and practice. First, a consideration of limitations to the study is in order.

Study Limitations

This study was opportunistic, utilizing data collected for developmental purposes to test hypotheses about versatile leadership in a crisis. Although quasi-experimental designs with matched samples in a naturalistic field setting allow for stronger causal inferences than most cross-sectional correlational research, they do not allow for the strong causal inferences made possible with a true experimental design with random assignment or within-subjects repeated measures (Grant & Wall, 2009; Shadish et al., 2002). In the strict language of behavioral science, this study did not prove that versatile leadership is more important to team performance in a crisis; rather, it failed to disconfirm that versatility is *not* more important in a crisis.

The sample included large corporations based in the United States in three industries—technology, financial services, and professional services—limiting the generalizability of the findings to other types of organizations. For instance, the effects of versatile leadership in cultures that

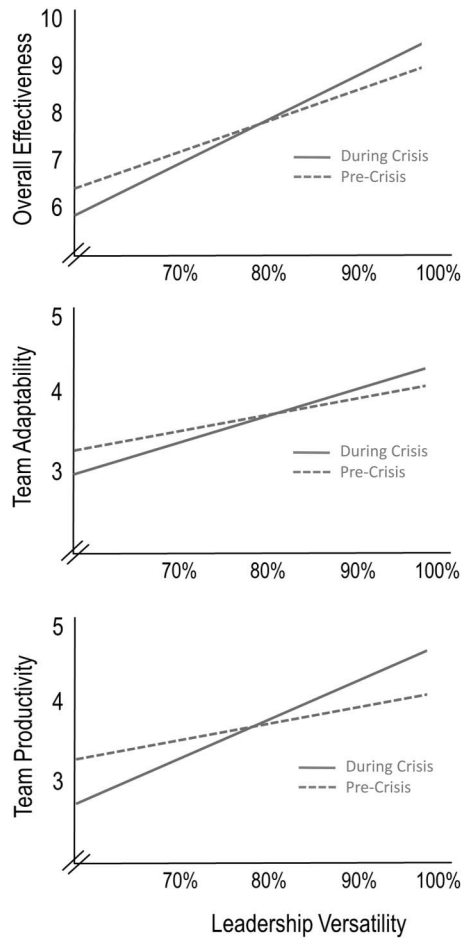


Figure 2. Significant differences in the relationships between leadership versatility and measures of effectiveness.

differ on such values as individualism-collectivism, uncertainty avoidance, and power distance may produce dissimilar results because of differences in team dynamics, the effects of disruption, and the influence of leadership (Dickson, Den Hartog, & Mitchelson, 2003). The results may also differ in organizations that vary in their degree of size, industry volatility, regulation, and other factors that affect the degree of managerial discretion, which can moderate the effects of leadership (Hambrick & Abrahamson, 1995).

This study relied on a particular measure of versatility that is based on one of a growing number of theories of flexible leadership involving the integration of opposing but complementary behaviors (Kaiser et al., 2007). Thus, there are limits on the generalizability of the present results to other conceptualizations of this type of leadership—for instance, behavioral complexity (K. A. Lawrence et al., 2009) and paradoxical leadership (Zhang et al., 2015). Further research will be needed to organize the literature on these newer models and better understand the similarities and differences among the various measures and the findings they produce.

Implications for Theory and Research

Crisis leadership. The current results are consistent with the identification of flexibility as a key attribute for crisis leadership. Although the literature review above identified a number of

paradoxical organizational needs and leader behaviors emphasized in crisis research, with few exceptions (e.g., [Pauchant & Mitroff, 1990](#)), crisis researchers have tended not to order or emphasize the critical organizational needs and required leadership behaviors in terms of conflicting pairs. Future crisis research may benefit from using a paradox perspective as an organizing framework to better represent the complexities, dilemmas, and cauldron of messy problems that crises pose ([Mitroff et al., 2004](#)).

Along the same lines, research on leading through a crisis has taken a traditional approach by considering various leadership competencies, behaviors, and functions more or less in isolation. However, some researchers have argued that traditional approaches to management are poorly equipped to handle the rising frequency and increasingly varied and unprecedented types of crises observed in recent years ([Mitroff, 2005](#)). The present results suggest that more recent, integrative models of flexible and adaptable leadership consisting of opposing and complementary perspectives, skills, and behavior may be one such promising avenue for study.

Finally, the literature on crisis leadership identifies both (a) providing hope and encouragement to motivate employees and (b) coordinating a collective response as important leadership functions. The present findings are consistent with this but suggest that a focus on a leader's role in organizing teams to regroup, refocus, and adapt may be the higher priority. Future research can help to clarify this and provide a sense of the relative importance of various leadership functions given that a crisis presents an overwhelming number of critical needs, and it may be helpful for leaders to have guidance about where limited time, attention, and energy are likely to have the greatest benefit.

Disruption, paradox, and new leadership models. The finding of a heightened role for versatile leadership during the crisis suggests that versatility is particularly important in highly disruptive and uncertain contexts. This raises the possibility that versatile leadership may be more or less vital in organizations that vary in terms of their typical operating environments. For instance, environmental dynamism refers to the degree of stability versus turbulence facing an organization ([Dess & Beard, 1984](#)). It would be helpful in future research to compare the effects of leadership versatility in organizations undergoing more frequent and more dramatic change (e.g., a turnaround, acquisition integration, or strategic pivot) and with less predictable shifts in the external environment (e.g., rapid changes in technology, shifting market demands, and new competitors). It is likely that the effects of versatility are more pronounced in organizations with a greater degree of turbulence and disruptive change, which has implications for leader selection and development.

Discussions of paradox, polarities, and dilemmas have become more prominent in recent years, but they have been a topic of research on organizational leadership for decades (e.g., [P. Lawrence & Lorsch, 1967](#); [Quinn, 1988](#)). However, a proliferation of theories, models, and measures has created a need to systematically review, integrate, and update this literature. Key questions include the following: What remains relevant from the historical work in this area? What is less so? And what demands of the modern world suggest a focus on new, or relatively less studied, paradoxes and dilemmas? For instance, increasing social, demographic, and cultural diversity in the workplace presents dilemmas that are becoming more salient. Additionally, the age-old conundrum of the relationship between humanity and technology is being redefined with concerns about the role of artificial intelligence and machine learning in an augmented workplace.

[Pulakos, Arad, Donovan, and Plamondon \(2000, p. 612\)](#) noted that “adaptability, flexibility, and versatility are elusive concepts . . . and are therefore difficult to measure, predict, and teach effectively.” Therefore, another important question concerns the similarities and differences among alternative models of these newer conceptualizations of leadership ([Norton, 2010](#)). For instance, paradoxical leadership ([Zhang et al., 2015](#)) is exclusively focused on dilemmas involving interpersonal relations and influencing others. Ambidextrous leadership is focused on resolving the innovators' dilemma and the competing needs for organizational continuity and transformation ([O'Reilly & Tushman, 2016](#)). Theoretical and empirical research suggests there is an important distinction between the interpersonal *how* and the organizational *what* dimensions of leadership that may provide a useful metaprinciple for understanding differences among theories ([Kaiser et al., 2012](#)). Further, measures of behavioral complexity ([K. A. Lawrence et al., 2009](#)) and versatile leadership ([Kaiser, 2020a](#)) cover dualities concerning both the how and the what, but with different method-

ologies (Kaiser et al., 2007). It would be helpful to understand what these measures have in common and how they differ in order to advance quantitative research about these newer models, especially research that can address leadership in an increasingly unpredictable and uncertain organizational environment rife with paradox and contradiction.

Implications for Practice

Advising leaders in a crisis. Organizations turned to executive coaches to help senior leaders navigate the uncharted waters of the COVID-19 crisis (Lublin, 2020). Examples abound of how coaches offered leaders an external sounding board for making sense of the pandemic, understanding the evolving threats to employees and the business, scenario planning, making difficult decisions under extreme uncertainty, and providing guidance for self-care, self-management, and coping with the daunting pressure. There are several summaries of research about crisis leadership that coaches can use to learn evidence-based practices and techniques (Blythe, 2014; DuBrin, 2013; Howitt & Leonard, 2009; Mitroff, 2005; Ulmer et al., 2007), and there are timely distillations of this literature in short, focused, and practical advice through professional platforms (e.g., <https://hbr.org/insight-center/coronavirus>).

Additional recommendations, supported by the present study, come from the paradox perspective on organizational dilemmas and the versatility perspective on leader behavior. For instance, as stay-at-home orders to prevent the spread of the coronavirus weighed heavily on the economy, many debated the tension between public health and economic health as “lives versus livelihoods” (Delaney, 2020). Coaches may serve the executives they advise well in a crisis by being alert to dualistic, polarized thinking and calling attention to false trade-offs. Coaches can assist leaders through the use of techniques for framing problems and devising response strategies that characterize competing demands in terms of paradoxes that are more effectively managed in a discursive, systemic process that addresses conflicting needs in a holistic and balanced way (J. H. Johansen, 2018; Johnson, 2020; Smith & Lewis, 2011). Coaches who have a history with the executives they advise can remind those clients of their leadership biases and blind spots, thereby encouraging them to lead with greater versatility in a crisis—for example, by preventing them from turning strengths into weaknesses through overuse and by helping them identify ways to compensate for skill gaps (Kaplan & Kaiser, 2006).

Preparing leaders for the “next normal.” Prior to the COVID-19 pandemic, organizations were increasingly recognizing that they did not have enough talent with crucial leadership capabilities and that the shortage would likely be worse in the future (Volini et al., 2019). There also has been a growing belief that leadership models and methods of development are in need of a reboot in order to meet the demands of the 21st century (Kaiser & Curphy, 2013; Salicru, 2020). Early indications suggest that these issues will seem even more critical after the pandemic (Dalcher, 2020; Walker, 2020).

A lot remains to be seen about the postpandemic world, but there does seem to be some certainty that uncertainty will be an ever-present feature. One forecast noted that even though organizations recognize the need for new leadership capabilities, they continue to promote “traditional models and mindsets—when they should be developing skills and measuring leadership in ways that help leaders effectively navigate greater ambiguity . . . [and] rapid change” (Volini et al., 2019, p. 1). A recent *Wall Street Journal* article similarly reported on work at the Drucker Institute that noted how greatly increasing uncertainty is calling for leadership that is adaptable and tolerant of ambiguity (Wartzman & Tang, 2020). This line of thinking among practitioners squares with recent theory and research on leadership models that emphasize flexibility and the ability to fluidly adapt to disruptive change and paradoxical demands with a wide and integrated repertoire of complementary perspectives, skills, and behaviors.

Organizations will need help with new ways of defining and developing leadership that is better suited for an increasingly dynamic and uncertain context (White & Shullman, 2010). Consultants and advisors who are fluent with alternatives to static competency models, traditional classroom-training programs, and the like should be well positioned to assist in these efforts to create modern solutions for modern problems. It is said that crisis presents opportunity; perhaps the shock of the

unprecedented COVID-19 pandemic will spur work on better methods of leadership assessment, selection, and development to better prepare leaders for the next crisis—and the unknown and unexpected of the next normal.⁴

⁴I thank an anonymous reviewer for pointing out that the word *normal* may be a misnomer, referring to Amy Edmundson's (2020) remark that normal is not as much a description of the world as it is a setting on a drying machine. Given that the time prior to the COVID-19 pandemic was complex and disruptive, it seems likely that the postpandemic world will be even more so.

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(Appendix follows)

Appendix

Calculating Versatility Scores

Versatility scores consider a leader’s joint standing on complementary behaviors and represent how close the ratings of those two behaviors are to the *right amount* on both. For instance, consider the various scores plotted in Figure A1. Score A is 100%—maximally versatile because both forceful and enabling were rated as 0, the *right amount*. Score B is 0%—the least possible degree of versatility because forceful is rated as +3 (the highest rating for *too much*), while enabling is rated as -3 (the lowest rating for *too little*). Because the versatility score represents how close scores are to 0 (the *right amount*) for both behaviors in a pair, different combinations of ratings can fall in different quadrants yet still yield the same versatility-score value because they are equally close to ratings of 0 for both behaviors (e.g., Scores C, D, and E).

Versatility scores are calculated using the Pythagorean theorem and the arithmetic shown in Figure A2. Using this formula, a versatility score is computed for each pair of items. Then, the average of these values is computed across the 12 pairs of forceful and enabling items as well as the 12 pairs of strategic and operational items, yielding the overall versatility score. Thus, the versatility score reflects how close ratings are to *right amount* on all 24 pairs of items.

Figure A3 shows an example for computing a versatility score for a pair of hypothetical ratings, a forceful score of +2 and an enabling score of -1. As the computation shows, these ratings yield a versatility score of 47.3% on this pair of items, meaning that this combination of ratings is geometrically located nearly half the distance to the ideal rating of 0 (the *right amount*) on both behaviors. These values are computed separately for each pair of items, and then the average is computed across all 24 pairs of items to derive an overall versatility score. This procedure is used to first calculate an overall versatility score for each rater; these values are then aggregated across multiple raters within each rater group and then finally aggregated across the three coworker rater groups to arrive at the aggregated overall leadership-versatility scores used as the primary variable representing leader behavior in this study.

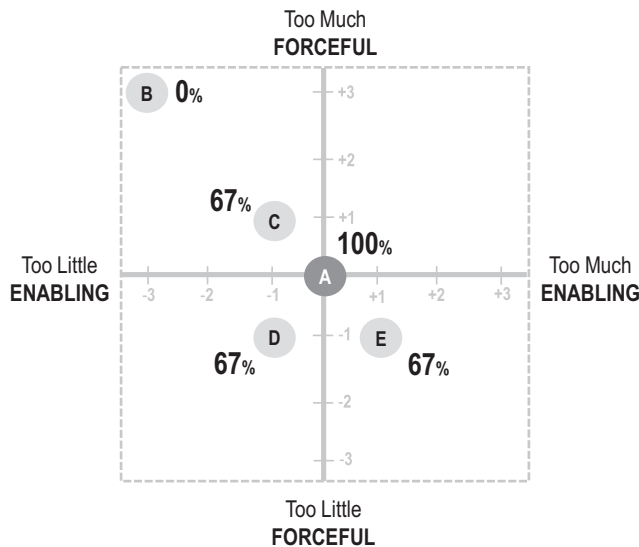
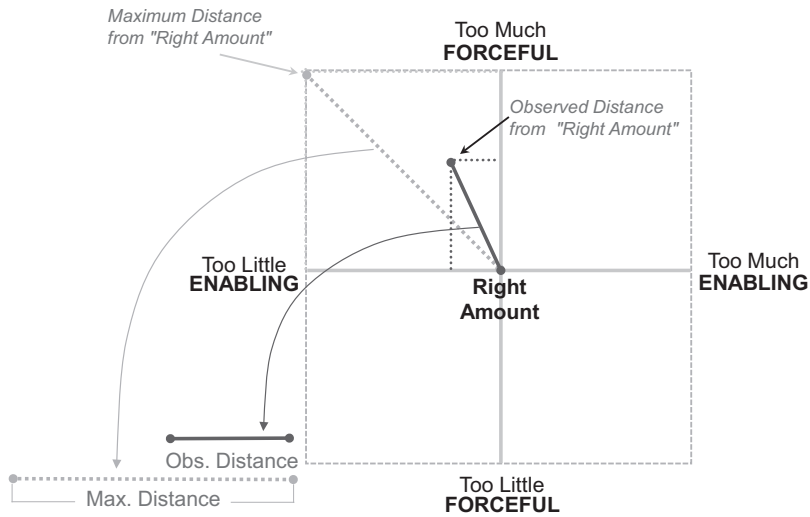


Figure A1. Conceptualizing versatility scores. Score A is maximally versatile; Score B is the least possible degree of versatility; and Scores C, D, and E represent different leadership styles but the same versatility score.

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$$\text{Versatility Score} = \frac{(\text{Max. Distance} - \text{Observed Distance})}{\text{Max. Distance}}$$

Figure A2. Calculation of a versatility score.

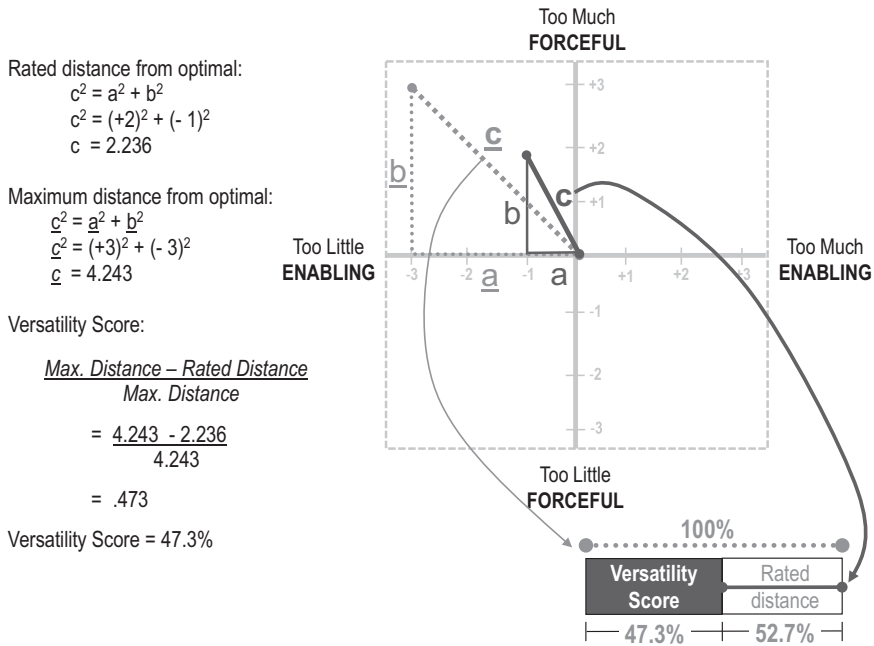


Figure A3. Example calculation of a versatility score.

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