Reconsidering Myths about Teamwork Using CCL's Framework on Team Effectiveness

By: Andy Loignon, Ph.D., Stephanie Wormington, Ph.D., and George Hallenbeck, Ph.D.

Center for Creative Leadership

CONTENTS

Executive Summary

A recent survey found over 96% of employees reported collaborating with others in some type of group or team (Volini et al., 2019). With teamwork being so commonplace, certain "truths" about teams have become pervasive. Common wisdom, for example, may suggest that working together ensures a shared understanding of roles and responsibilities or that a divide-and-conquer approach to work is most efficient.

However, teams are often more complex than these conventional beliefs might suggest. Teamwork is dynamic, embedded within a larger organizational or community ecosystem, and shaped by individual team members. This is aligned with CCL's view of leadership as a social process that enables people to work together as a cohesive group to produce collective results (McCauley & Fick-Cooper, 2020). Teams have become more complex due to ongoing changes in how we do our jobs such as hybrid working environments and the growing use of networks of teams. As a result, our beliefs about teams may hold some kernels of truth but be overgeneralized or misrepresented.

To what extent are "truths" about teams factually based, and how can the intricacies of team functioning be represented accurately and concisely? In this paper, we begin by exploring common myths about teams. We shared several statements about teamwork to over 1,300 working adults. On average, across all the myths and respondents, 62% of respondents agreed with the

96%

of employees reported collaborating with others in some type of group or team.

myths we presented, 21% were uncertain, and only 17% disagree (see accompanying Figure Exec. 1 – Ratings of Myths). This suggests that over 80% of respondents either endorsed, or expressed uncertainty about, myths relating to fundamental aspects of teamwork.

Interestingly, additional analyses revealed that not all working adults may endorse myths about teamwork at equivalent levels. Individuals who currently work in a team or occupy more senior positions of leadership were significantly more likely to endorse myths about teamwork while also being less likely to express uncertainty about these myths. This suggests that past experiences working in, or leading, teams may make it more difficult to identify such myths.

Given the pervasiveness and lack of clarity surrounding myths about teams, we provide a research-grounded framework to better support holistic team effectiveness while also illuminating nuances about common myths. Together, we leverage this framework and our review of the teams literature to offer four broader "truths" that leaders and organizations can keep in mind to support effective teamwork. These include:

- **Effective teams need intentional and systemic support**. A majority of respondents believe that today's organizations readily support teams. Likewise, many felt that teams whose members are satisfied can be considered high performing. Unfortunately, these perspectives do not coincide with the
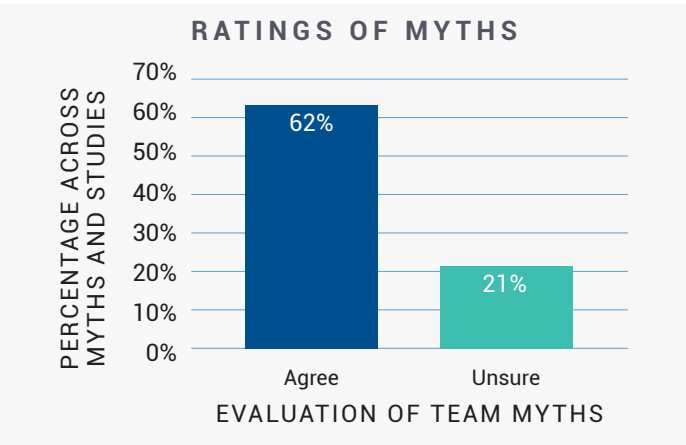

RATINGS OF MYTHS

PERCENTAGE ACROSS MYTHS AND STUDIES

EVALUATION OF TEAM MYTHS

FIGURE 1

reality that many systems in organizations are geared towards individual employees and effective teamwork represents a wide range of criteria (e.g., satisfaction, performance, creativity, viability). The fact that these two myths are pervasive point to the need to recognize a larger truth: teams need to be intentionally supported with ongoing development and an appreciation of their place in broader systems.

- **Teams simultaneously reflect "wholes" and "parts."** Although teams come together to achieve shared and collective goals, they are, fundamentally, a combination of distinct individuals. Leaders can benefit from appreciating this bifocal perspective of teams as both a uniform entity (i.e., a group) and a collection of individuals (i.e., several members) (Loignon & Wormington, 2022).

- **Teams are dynamic.** Although it can be tempting to rely on snapshots or a static perspective of teams, it is more accurate to recognize that any team will look, feel, and collectively think differently in the future relative to how they do today. Consequently, it is best to re-evaluate where a team is at any point in time rather than assume stability.

- **Beliefs about teams and teamwork need to be (re)surfaced.** Given the pervasiveness of myths and misconceptions about teamwork, there is value in openly discussing, questioning, and challenging assumptions about how teams can be the most effective. Once these beliefs are identified, teams and their leaders can consider whether those beliefs are based on anecdotes and personal experience or broader evidence and best practices.

Our actions often follow our beliefs and perceptions – in ways that are both beneficial and harmful (e.g., Ajzen, 2002; Eden, 1992). Thus, this work provides a concise framework to support team effectiveness, and provides leaders with evidence to question personally-held beliefs, putting them in a better position to recognize and address myths held by other members of the team. Ultimately, this new insight can then inform stronger practices for supporting team development.

Myths Regarding Teamwork

Organizations from across a range of industries now rely on teams for effective and efficient functioning: from employees working on an assembly line, to healthcare professionals pooling their expertise to improve patient care, and research and development teams pursuing the latest innovations. In fact, a recent survey found over 96% of employees reported collaborating, to at least some extent, with others in some type of group or team (Volini, Schwartz, Roy, Hauptmann, & Van Durme, 2019). Even if someone is not currently working in a team, they likely have experience working on projects with others in educational or community-based settings (Salas, Burke, & Fowlkes, 2006).

These firsthand experiences working with others toward a shared goal can provide invaluable opportunities for growth and development. Teamwork experiences can help cultivate basic skills required to be a contributing group member (Loughry, Ohland, & Moore, 2007; Mathieu, Tannenbaum, Donsbach, & Alliger, 2014) and can spur development of new and meaningful ways of learning (Lombardo & Eichinger, 1999). Working in teams can also help individuals learn firsthand about the benefits and perils of functioning as part of a collective (Hackman, 1987; Steiner, 1972), which can help inform how to approach future teamwork opportunities.

Though previous experiences working in teams can provide valuable insight into how to work effectively with others, they may also encourage relying on incomplete frames of reference for understanding collective work. The conclusions drawn from personal history working in teams may contain some "kernels of truth" that over time may become overgeneralized, misapplied, or unexamined (e.g., Gigerenzer, Reb, & Laun, 2022). To the extent that these beliefs are shared with others, they may become a "myth" about teams that ultimately obscures a larger truth about how people work together (cf., Vandenberg, 2006). Thus, busting myths about teamwork, or widely held beliefs that are inaccurate, likely has value for team leaders and their members.

As an example, consider the following statement, "Most people prefer to work individually and will

shirk their responsibilities in teams." This idea reflects a common concern about working in teams where workloads are unfairly distributed, and the hardest working contributors carry a disproportionate amount of responsibility without accompanying recognition or compensation. It is easy to imagine how such a belief would emerge based on past experience—from group projects in school to team efforts in the workplace—and may be reinforced by others sharing similar experiences. With enough past experience and supporting evidence from others, this belief can easily become a strongly held assumption about how teams function. As a result, this pessimistic belief may shape how people approach working in teams (Jackson, Colquitt, Wesson, & Zapata-Phelan, 2006). Evidence suggests that there is a kernel of truth underlying this statement: some teammates can and do become "social loafers" (Liden, Wayne, Jaworski, & Bennett, 2004) and do not contribute equally to a team's workload. However, the reality is considerably more nuanced and complicated. In fact, most team members regularly express a desire to contribute to their group (Jackson et al., 2006). Without understanding the nuance behind this assumption, team members may be skeptical of and collaborate less effectively with others.

79-90%
of respondents either endorsed or were uncertain concerning myths about teamwork.

With all of the recent changes to the workplace and collective work, what myths are people most likely to endorse now and what additional information may be useful to challenge these misperceptions? To better understand the prevalence of common myths, we asked over 1300 working adults—including more than

400 leaders who previously attended a leadership development program at the Center for Creative Leadership (CCL)—to indicate the extent to which they agreed with several statements pertaining to their recent experiences working in teams (see Table 1. Myths about Teams Are Regularly Endorsed or Elicit Uncertainty). Evidence suggests that, across both samples, at least 9 of the 11 myths identified were endorsed by a majority of respondents. In addition, nearly 1/5th of the sample was unsure about each myth (average uncertainty = 18%). Taken together, results indicate that 79% (CCL Alumni) to 90% (U.S. Adults) of professionals, on average, either endorse or were uncertain about a given myth about teamwork (see Total column in Table 1). Many of the statements listed in Table 1 were commonly endorsed across leader levels, organizations, and sectors. There is either support for, or confusion around, these ideas about teams. As such, there are opportunities to increase overall comprehension of how teams actually function to challenge incomplete or counterproductive beliefs about collective work. This paper seeks to consolidate the latest research on team functioning to educate team members and leaders on how to intentionally support team development and effectiveness.

TABLE 1. MYTHS ABOUT TEAMS ARE REGULARLY ENDORSED OR ELICIT UNCERTAINTY

TEAMWORK MYTHS	STUDY 1: U.S. ADULTS			STUDY 2: CCL ALUMNI		
	AGREE	UNCERTAIN	TOTAL	AGREE	UNCERTAIN	TOTAL
1. How people feel at work each day largely reflects their personal experiences.	71%	19%	90%	89%	7%	96%
2. Today's organizations are designed to support effective teamwork.	57%	26%	83%	42%	15%	58%
3. Teams whose members are satisfied with each other can be considered high performing group.	76%	19%	95%	56%	22%	77%
4. Whenever possible, team members should work closely together and rely on one another.	81%	14%	94%	84%	9%	93%
5. When it comes to staffing teams, it's better to include anyone who has relevant expertise.	67%	22%	88%	52%	11%	63%
6. It is preferable for team members to "divide and conquer" their work because it is more efficient than other approaches.	55%	28%	83%	55%	16%	71%
7. By working together and collaborating, team members develop a shared understanding of the tasks at hand.	82%	13%	95%	70%	26%	97%
8. Teams experience conflict as a group and must collectively work through their disagreements.	77%	15%	92%	52%	36%	87%
9. Trust among team members takes weeks, if not months, to develop.	68%	20%	88%	81%	4%	85%
10. Team-to-team connections are best orchestrated by the organization's senior leaders.	56%	29%	85%	37%	10%	48%
11. Effective boundary spanning emerges mainly due to strong team-to-team relationships.	68%	27%	95%	89%	6%	95%

Note. Study 1 – Working adults within U.S., Study 2 – CCL Alumni. Study 1 - *n* = 945 respondents, average 389 respondents per myth; Study 2 – *n* = 402 respondents, average 118 respondents per myth. Percentage of people who agree represents the number of individuals who selected either "Agree" or "Strongly Agree" for each myth. Percentage of people who are uncertain reflects the number of individuals who selected "Neither agree nor disagree" when rating each myth. Total column refers to the percentage of people who either agree or are uncertain (i.e., Agree + Uncertain). Additional details regarding how this study was conducted, and interesting differences between the two samples, are provided in the Appendix.

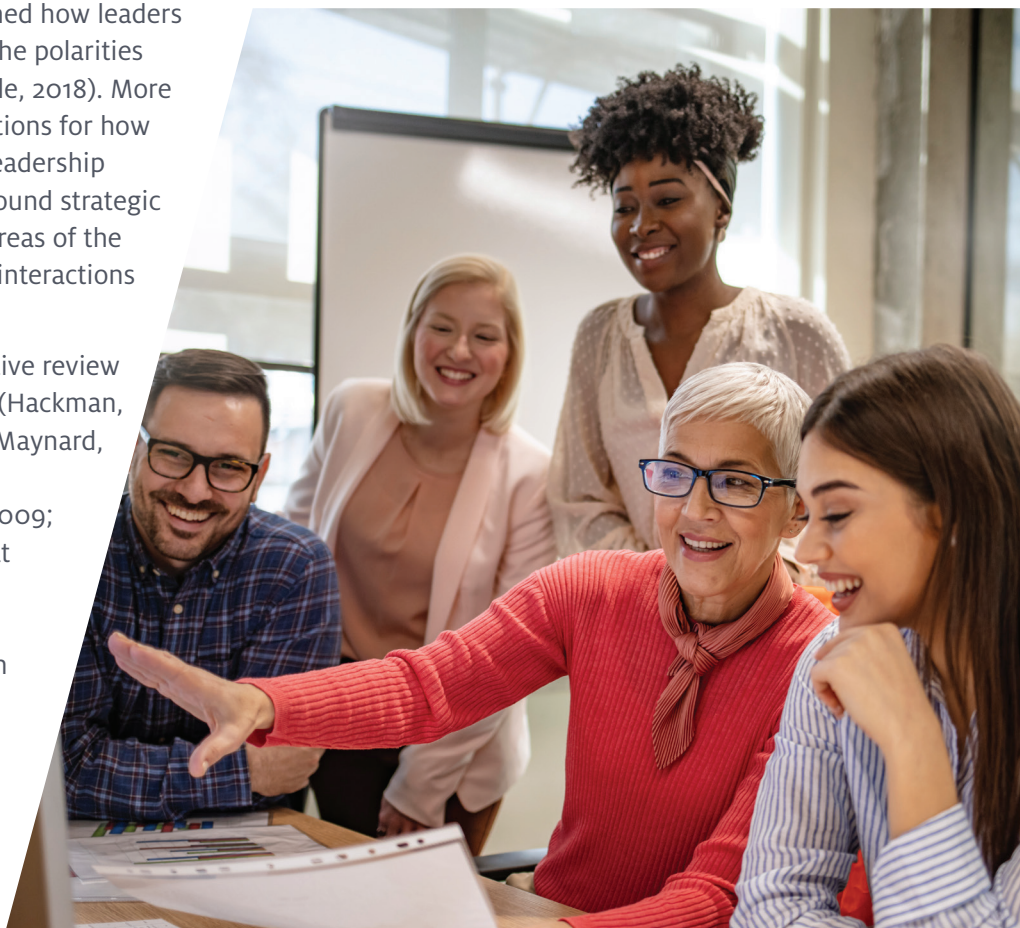# Reconsidering Myths Using CCL's Framework

From research on direction-alignment-commitment (DAC) to a reliance on cohort-based leadership development (McCauley & Fick-Cooper, 2020), CCL has a long history of emphasizing the "collective." Recall that CCL defines leadership as a social process that enables people to work together as a cohesive group to produce collective results. This focus on the collective implies that leadership should be considered as a function of teams, groups, and communities working together rather than a predominate focus on individuals' leadership actions.

Along with an emphasis on collective leadership, CCL has conducted decades of work helping teams enhance their effectiveness. For example, seminal CCL work highlighted the growing importance of teams in organizations as well as the persistent feeling among leaders that teams were not functioning at an optimal level (Martin & Bal, 2015). Likewise, before the onset of the COVID-19 pandemic and large-scale transition to hybrid working environments, we examined how leaders can support virtual teams by embracing the polarities or tensions in these groups (Leslie & Hoole, 2018). More recently, CCL has advanced recommendations for how to maximize the effectiveness of senior leadership teams by ensuring these groups have a sound strategic focus, work collectively across different areas of the organization, and cultivate healthy team interactions (Cahill, 2020).

Based on this work, as well as an exhaustive review of prevailing team theories and research (Hackman, 1987; Kozlowski & Ilgen, 2006; Mathieu, Maynard, Rapp, & Gilson, 2008; Rousseau, Aube, & Savoie, 2006; Salas, Goodwin, & Burke, 2009; Salas, Sims, & Burke, 2005), it is clear that effective teams have to regularly balance and re-orient their energy and effort in distinct directions. As we discuss below in relation to one prevailing myth, the most effective teams are those that achieve their objectives, include members who are satisfied being in the group, and are well-equipped to continue to perform in the future (Hackman, 1987). CCL's Team Effectiveness Framework (Figure 2. CCL Team Effectiveness Framework) was designed to capture the most relevant areas in which teams must channel their collective effort and energy, based on theory and research:

- Within the team: Establish a strong sense of **core purpose** reinforced by shared agreements that guide day-to-day practices.

- Among team members: Create and evolve a **collective mindset** that is open, integrative and promotes collaboration.

- Between team members: Nurture **cohesive relationships** by emphasizing inclusion, trust and psychological safety.

- Across teams: Build and maintain strong **team-to-team connections** that bust silos and spark innovation.
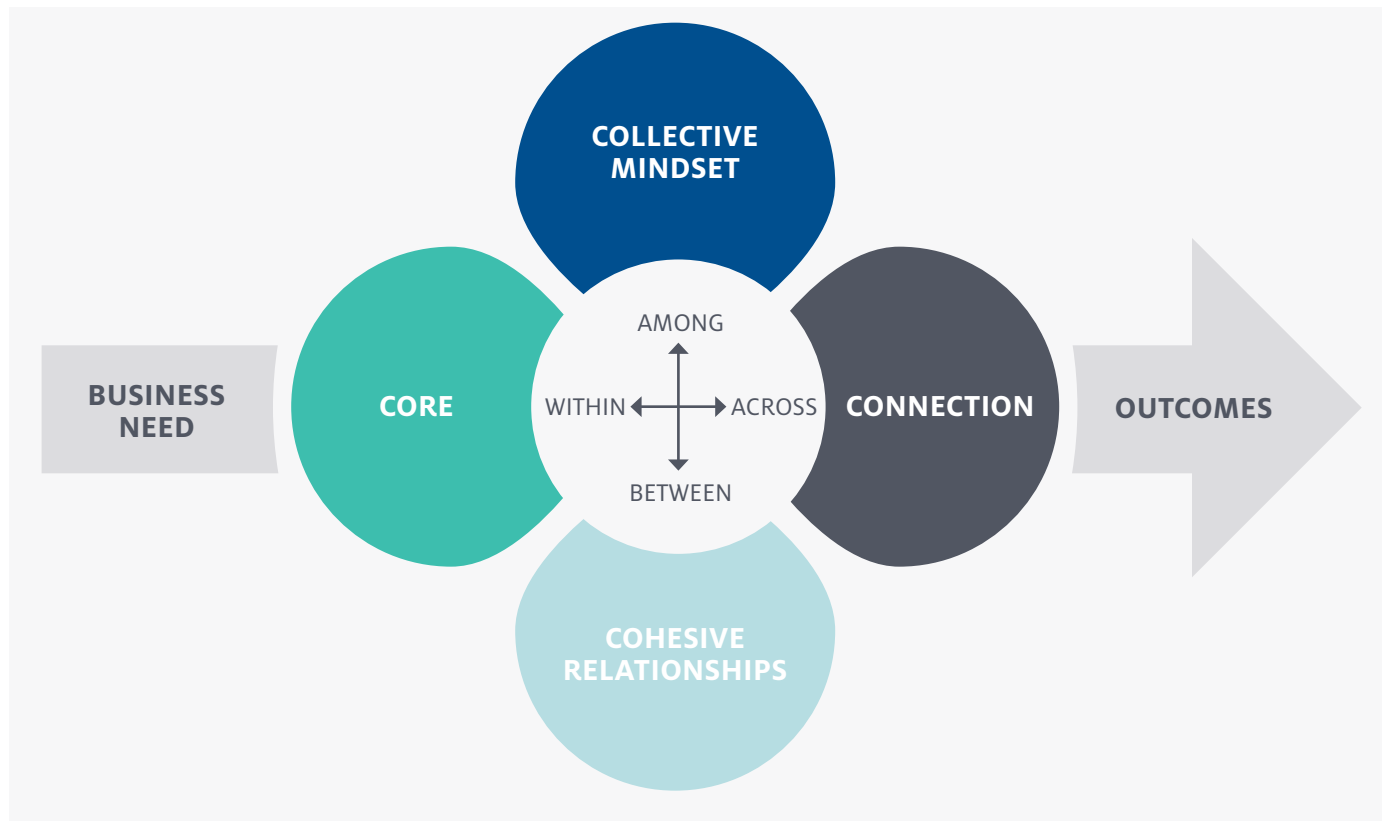
FIGURE 2

CCL's Team Effectiveness Framework provides a comprehensive but concise roadmap for helping teams improve their effectiveness. With a focus on accessibility, it does not explicitly cover all factors influencing team effectiveness. Nevertheless, if a team is making progress in these four areas, they are expected to move toward achieving their desired outcomes (Kozlowski & Ilgen, 2006; Mathieu et al., 2008; Rousseau et al., 2006; Salas et al., 2005).

CCL's Team Effectiveness Framework is also useful for challenging myths around teamwork and developing a more comprehensive—and evidence-informed—

understanding of how teams function. Rather than relying solely on personal or anecdotal experiences, the Team Effectiveness Framework grounds leaders' understanding in seminal and current research on teams. This framework builds upon the ideas that are often the impetus for myths about teamwork and provides a more complete and nuanced understanding of the key components underlying team effectiveness. Table 2, *Myths about Teams, Their Kernels of Truth, and Points of Clarification*, provides a summary of the kernels of truth and points of clarification around each myth.

TABLE 2. MYTHS ABOUT TEAMS, THEIR KERNELS OF TRUTH, AND POINTS OF CLARIFICATION.

MYTH	KERNEL OF TRUTH	POINTS OF CLARIFICATION
PREMISES/ASSUMPTIONS		
1. How people feel at work each day reflects their personal experiences.	How we feel at work (e.g., energized, run-down) is related to our own experiences.	Team members' emotions can influence others, and the team as a whole.
2. Today's organizations are designed to support effective teamwork.	Teams are increasingly commonplace in today's organizations.	Organizations and practices are still designed with the individual contributor in mind.
3. Teams whose members are satisfied with each other can be considered a high performing group.	Team satisfaction, or the extent to which group members enjoy working with one another, is a key aspect of team effectiveness.	Satisfaction does not, on its own, equal results. Team effectiveness also requires the team to achieve its objectives and perform well into the future.
ESTABLISHING A CORE PURPOSE		
4. Whenever possible, team members should work closely together and rely on one another.	Interdependence is a critical aspect of teamwork.	A "one-size-fits-all" approach to designing workflows has received little empirical support. Instead, interdependence should be intentionally designed to fit the broader structure of the team (e.g., its goals or tasks).
5. When it comes to staffing teams, it's best to include everyone who has relevant expertise.	Having sufficient expertise is a key concern for any team.	Belonging to too many teams can lead to people feeling emotionally exhausted and cognitively strained, and is associated with increased turnover.
CREATING A COLLECTIVE MINDSET		
6. It is preferable for team members to "divide and conquer" their work because it is more efficient than other approaches.	Teams have quite a bit of flexibility in deciding how much they work together versus separately.	Regardless of workflows, creating a shared understanding of who does what, which tasks are related to one another, and how team members can support each other is a consistent driver of team performance
7. By working together and collaborating, team members develop a shared understanding of the tasks at hand.	Teams with longer tenures often experience certain benefits (e.g., more confidence in the group's ability to complete its task, stronger cohesion).	The amount of time team members have worked together does not directly contribute to a shared mindset. Instead, each individual team members' respective experience and unique skill sets is more impactful.
NURTURING COHESIVE RELATIONSHIPS		
8. Teams experience conflict as a group and must collectively work through their disagreements.	Conflict can occasionally engulf an entire team.	Conflict most often originates among specific pairs of team members. When not contained, that conflict can spread throughout the group.
9. Trust among team members takes weeks, if not months, to develop.	Trust can ebb and flow over long periods of time.	Teams can experience "swift trust" based on minimal, if any, interaction.
BUILDING TEAM-TO-TEAM CONNECTIONS		
10. Team-to-team connections are best orchestrated by the organization's senior leaders.	Leadership is a critical process when facilitating team-to-team connections.	Team-to-team connections can range from very centralized and hierarchical structures to more collective and decentralized approaches.
11. Effective boundary spanning emerges mainly due to strong team-to-team relationships.	Boundary spanning, almost by definition, relies on team-to-team connections.	What occurs *within* the team is a catalyst for establishing relationships beyond the group.

Note. Myths about teamwork were identified based on a review of the research literature. Specifically, we selected findings that are (1) robust and widely supported across several studies and (2) were likely counterintuitive and not held by team members and leaders. These specific citations for each myth are provided in the text below.

Premise and Assumptions

CCL's Team Effectiveness Framework rests on several premises and assumptions. Before discussing the specific directions that teams must travel on their way to higher levels of effectiveness, and the myths associated with each of the directions, lets first consider several myths that pertain to working with others in teams more generally.

Myth #1 How people feel at work each day largely reflects their personal experiences.

When we think about our experiences at work, we tend to focus on our personal experiences. This is logical given that how we think, feel, and behave at work is largely related to what we personally did, who we spoke with, and how our day went.

At the same time, our experiences at work are also a reflection of factors in the broader social context; namely, among teams and group members. In fact, something as fundamental as the emotions we experience can be affected by how others in our team are feeling (Barsade & Knight, 2015). For instance, in one study teams were assigned formal leaders who were made to feel positive emotions (e.g., "excited," "enthusiastic") or negative emotions (e.g., "distressed," "hostile") before working with their group (Sy, Cote, & Saavedra, 2005). The leader's positive or negative emotions then spread throughout the team during the initial planning stage and even after the task was completed (see Figures 3 and 4. A Leader's Positive and Negative Emotions Can Spread Throughout the Team). Ultimately, these emotions affected core team processes like the group's effort and coordination.

These findings suggest that the adage that "no one is an island" may be especially true in team work settings. Rather, the experiences that unfold within teams reverberate throughout the entire group and can have implications for how members think, behave, and act while at work. Given the impact of different emotional states for creativity, satisfaction, and broad thinking (e.g., Frederickson, 2004), recognizing the social influence of others on individual team members is critical for supporting overall team effectiveness.

A LEADER'S POSITIVE AND NEGATIVE EMOTIONS CAN SPREAD THROUGHOUT THE TEAM (EXPERIMENTAL EVIDENCE FROM SY ET AL., 2005)

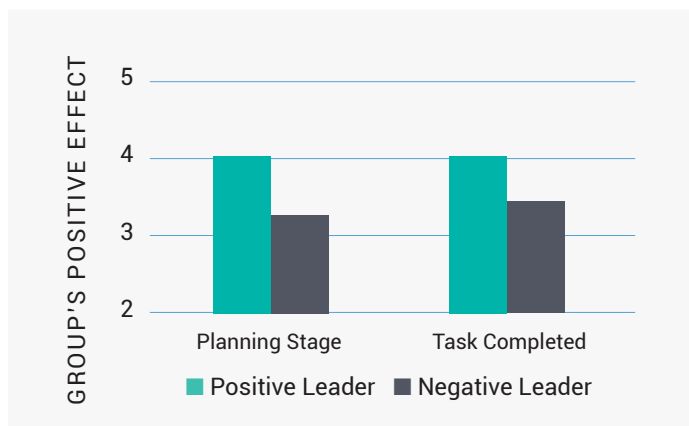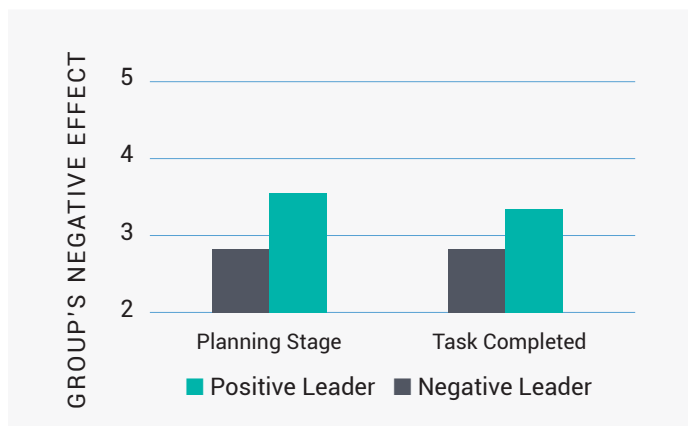

FIGURE 3

FIGURE 4

Myth #2 Today's organizations are designed to support effective teamwork.

Today's organizations often implement teams without explicit attention given to also creating systems that then support and develop the groups themselves. For example, hiring practices prioritize fit to a specific job and, often, afford insufficient attention as to how multiple jobs should work together (Bowers, Baker, & Salas, 1994; Singh, 2008). Likewise, performance is typically evaluated in terms of individual achievements (Aguinis, Gottfredson, & Joo, 2013). Training efforts also often focus on acquiring knowledge and skills that align to specific jobs and often overlook team-oriented skillsets (Loughry et al., 2007). Much of leadership development is also geared towards individuals who occupy specific roles rather than a broader collective (Day & Dragoni, 2015).

By cultivating team-focused practices, an organization is far better able to enhance the effectiveness of these groups. As one concrete example, consider after-action-reviews (AARs) where team members collectively review, reflect, and discuss their group's performance after a specific period of performance. A recent review of research on AARs found that, based on over 141 separate studies involving more than 5,000 teams, the typical AAR yielded substantial increases in team performance (Cohen's d = .86; Keiser & Arthur Jr., 2021). To put this effect in perspective, this association is greater than 80% of the associations typically observed in the broader literature (Bosco, Aguinis, Singh, Field, & Pierce, 2015) (see Figure 5. After-Action-Reviews Can Yield Substantial Improvements in Team Performance). This is just one example how an organizational practice, which focuses explicitly on teamwork, can yield substantial benefits.

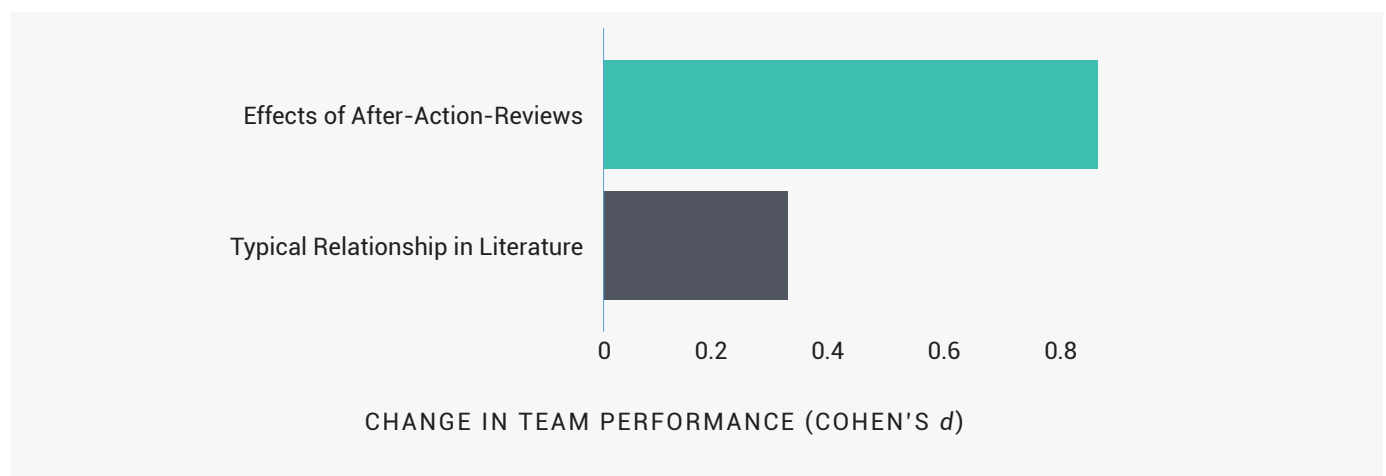## AFTER-ACTION-REVIEWS CAN YIELD SUBSTANTIAL IMPROVEMENTS IN TEAM PERFORMANCE

FIGURE 5

Researchers generally conceptualize team outcomes as three related, yet distinct components (see Figure 8. Primary Components for Defining Team Outcomes). These include:

- Team performance: the extent to which what the team produces meets or exceeds the standards of its stakeholders (e.g., clients, customers) (Hackman, 1987).

- Team satisfaction: whether team members are satisfied or pleased with their colleagues and working in the team (Gladstein, 1984).

- Team viability: the capacity for the sustainability and growth required for effectiveness in the future (Bell & Marentette, 2011).

PRIMARY COMPONENTS FOR DEFINING TEAM OUTCOMES

FIGURE 6

With these outcomes in mind, we can easily think of examples of teams who may excel in one area while lagging in others. For instance, an employee may have personal experience working in a team where group members enjoy each other's company, but the team rarely produces anything of value (i.e., high satisfaction, low performance). Alternatively, there are countless examples of professional sports teams who had tremendous success one season and completely imploded the next year (i.e., high performance, low viability). These anecdotes, as well as a large body of research, suggests that few factors will contribute equally to all three outcomes (deWit, Greer, & Jehn, 2012; LePine, Piccolo, Jackson, Mathieu, & Saul, 2008). Team members and leaders need to be mindful of the distinct outcomes and keep an eye on maximizing each criterion.

Within the Team: Establishing a Core Purpose

A defining feature of any team is having members who are working towards a shared goal (Kozlowski & Bell, 2003). Thus, there are certain practices that help high performing teams develop a clear sense of purpose and ensure the right components are in place in order to pursue such goals. These efforts are focused within the team and lay the foundation for subsequent success (Bell, 2007; Stewart, 2006; Wolfson, D'Innocenzo, & Bell, in press).

Myth #4 Whenever possible, team members should work closely together and rely on one another.

One critical aspect of designing and structuring teams is determining the level of interdependence within the group. Interdependence can be defined as the degree to which "team members depend upon one another for access to critical resources and create workflows that require coordinated action" (Courtright, Thurgood, Stewart, & Pierotti, 2015, p. 1828). Put more simply, interdependence is the extent to which team members rely on one another to get their work done.

Oftentimes, there is a sense among team members that they should be collaborating more and relying on each other as much as possible. After all, this is a core aspect of many definitions of teamwork (Kozlowski & Bell, 2003). However, research has increasingly found that it is more appropriate to align the level of interdependence with other aspects of teamwork (e.g., how team members are rewarded, the nature of task

that the team is working on). One study, featuring more than 100 teams, showed that with adequate alignment both independent and interdependent teams performed exceptionally well (Saavedra, Earley, & Van Dyne, 1993) (see Figure 7. Ensuring Interdependence Fits the Team is Most Important). Aligned teams also experienced less conflict. Instead, it was the groups whose interdependence was *misaligned* who struggled. Misalignment could occur, for example, if the team tried to collaborate more when the task could be completed independently.

Thus, when deciding on the team's purpose, one question that may need to be answered is, "How much do we have to rely on each other to achieve our goals and objectives?" Striving for more collaboration and interdependence, when this isn't required, may lead to subpar levels of team effectiveness.

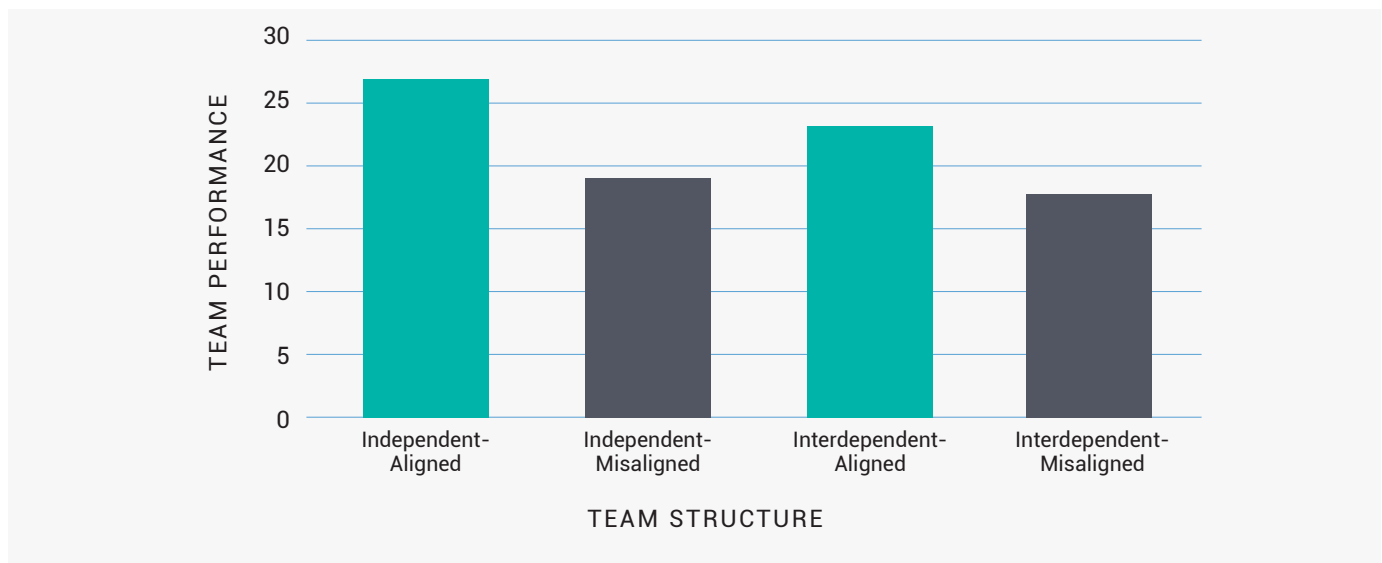## ENSURING INTERDEPENDENCE FITS THE TEAM IS MOST IMPORTANT

FIGURE 7

Myth #5 When it comes to staffing teams, it's better to include anyone who has relevant expertise.

A key consideration for enhancing team effectiveness is deciding how best to compose a team (e.g., Mathieu et al., 2014; Wolfson et al., in press). Deciding on a team's composition consists of answering questions like, "What combination of skills and expertise are needed to achieve the team's objective?" and "How do we manage changes in group membership over time?" One approach to answer these questions can be summarized as, "When in doubt, extend an invitation." This approach would

certainly increase the breadth of expertise within the group and would ensure that a range of viewpoints are represented during the team's discussions.

However, this strategy also has the potential to lead to some unintended consequences. Recent research has found that there may be a limit to the number of teams that people can belong to before they begin to feel strained and exhausted (Berger, van den Brake, & Bruch, 2022). For example, one study of over 200 employees found that as people belonged to more teams they then reported greater strain between their permanent team and the other groups they worked with (e.g., "I feel that my role as a *permanent* team member is not compatible with being a member of my secondary team(s)") (see Figure 8 Belonging to More Teams Predicts Greater Strain; Mistry, Kirkman, Moore, Hanna, & Rapp, in press). Ultimately, this strain was associated with greater turnover intentions.

These findings suggest that teams and their leaders must be intentional in deciding how to compose their group. Certainly, teams must have sufficient expertise to complete the tasks at hand. At the same time, there is a limit to the number of individuals who could be wholly integrated within the group (Carton & Cummings, 2012).
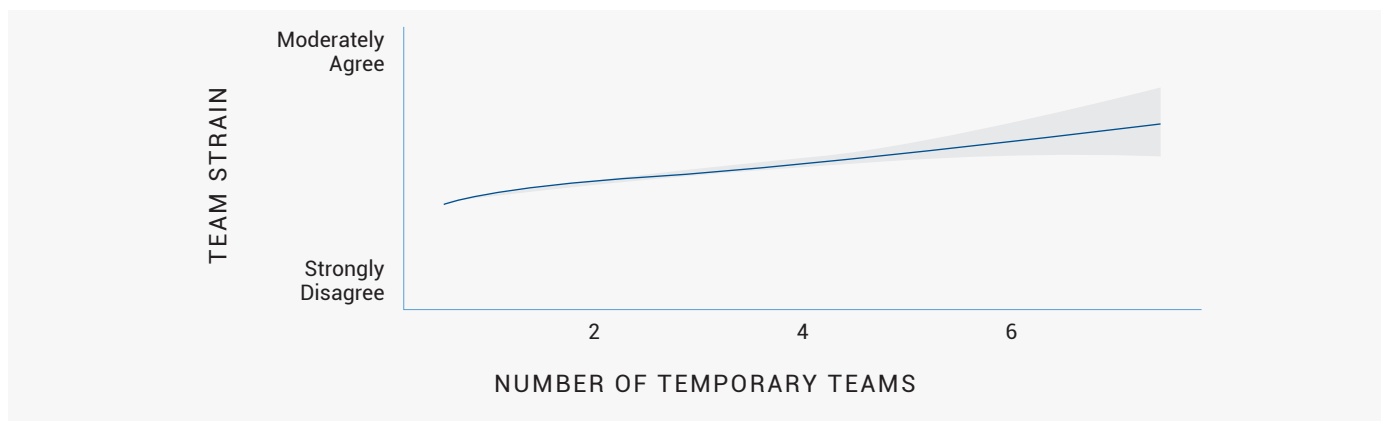
BELONGING TO MORE TEAMS PREDICTS GREATER STRAIN

FIGURE 8

Among Team Members: Creating a Collective Mindset

Teams find themselves in increasingly complex contexts requiring more capability and agility. For example, team members must regularly seek new information, accept being wrong and change their perspectives, and work towards integrating unique ideas within the group all in service of the team's shared outcome. Adopting a shared, yet dynamic mindset to its operating beliefs about teamwork helps them to navigate through new and unfamiliar circumstances.

Myth #6   It is preferable for team members to divide and conquer their work because it is far more efficient than other approaches.

In fact, there are several ways in which teams can structure their workflows and be effective. For example, teams can exchange tasks back-and-forth en route to completion or work interdependently throughout the duration of their projects (Saavedra et al., 1993; Van De Ven, Delbecq, & Koenig, 1976). Furthermore, there is consistent evidence suggesting that even if team members tend to divvy up their tasks, creating a shared understanding of who does what, which takes are related, and how team members can support each other is a key driver of team effectiveness (Mohammed, Ferzandi, & Hamilton, 2010).

One way to think about these "shared understandings" is to recognize that teams can collectively think and disseminate information. In fact, some have discussed the idea of team cognition, which "refers to the manner in which knowledge important to team functioning is mentally organized, represented, and distributed within the team and allows team members to anticipate and execute actions" (DeChurch & Mesmer-Magnus, 2010, p. 33). Teams who can more effectively manage the knowledge within their group often perform at much higher levels (DeChurch & Mesmer-Magnus, 2010). In fact, the associated performance benefits rival basic team processes like communication (Marlow, Lacerenza, Paoletti, Burke, & Salas, 2018) and other critical factors for team effectiveness like psychological safety (Frazier, Fainschmidt, Klinger, Pezeshkan, & Vracheva, 2017) (Figure 9. Team Cognition is A Key Predictor of Team Performance).

These findings suggest that even in teams where it may make sense to "divide and conquer" there is still value in, at a minimum, having a shared understanding of how each team members contributions fit together and where specific pieces of expertise reside within the group. This is one of the key aspects of Alignment in CCL's Direction-Alignment-Commitment (DAC) framework (McCauley & Fick-Cooper, 2020).
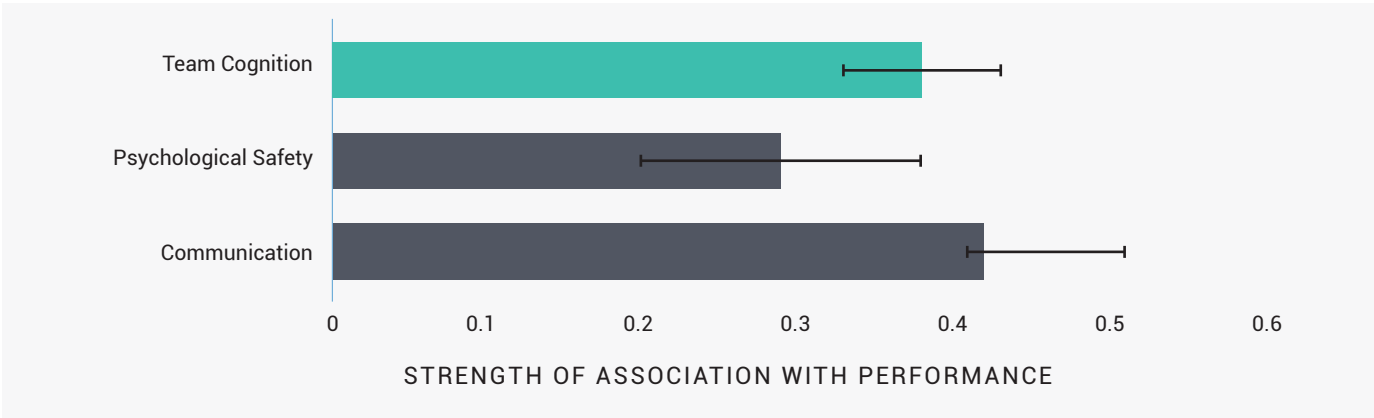
TEAM COGNITION IS A KEY PREDICTOR OF TEAM PERFORMANCE

FIGURE 9

Note. Data for team cognition is based on over 60 studies and 3,512 teams (DeChurch & Mesmer-Magnus, 2010).

Myth #7

By working together and collaborating, team members develop a shared understanding of the tasks at hand.

Teams whose members have spent more time working together have more distinct experiences than groups that were just formed. However, it is not the case that simply spending more time working together necessarily means that teammates have a better understanding of each other's work (Gonzalez-Mule, Cockburn, McCormick, & Zhao, 2020). Also, creating teams with a mixture of "new blood" and "old guard" (i.e., increasing the differences in team members' tenure) will not inherently facilitate more shared understandings of the team's tasks.

Instead, recent evidence based on the combined results of 14 separate studies and over 1,000 teams suggests that each individual team member's respective experience (i.e., how long they worked in their role or for the organization) is more related to team cognition (Gonzalez-Mule et al., 2020). Specifically, more than 75% of the variability in team cognition can be attributed to the level of expertise in the group rather than time spent working together or the differences in team tenure (see Figure 10. Team Cognition is Mostly a Matter of Relevant Expertise than Time Spent Together).

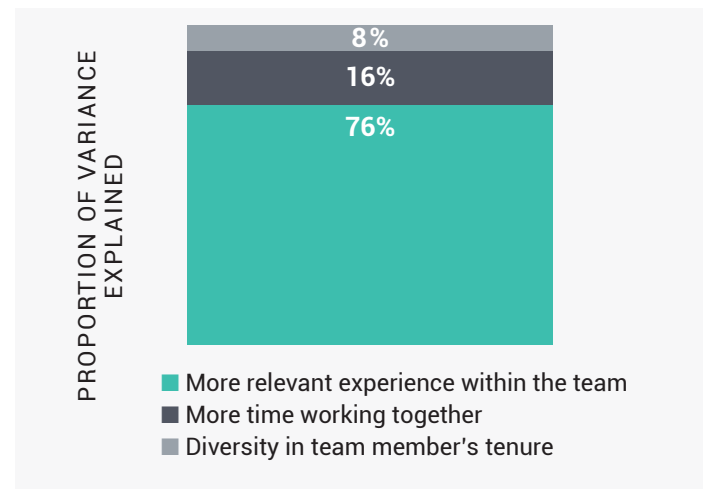## TEAM COGNITION IS MOSTLY A MATTER OF RELEVANT EXPERTISE THAN TIME SPENT TOGETHER

PROPORTION OF VARIANCE EXPLAINED

8%
16%
76%

■ More relevant experience within the team
■ More time working together
■ Diversity in team member's tenure

FIGURE 10

This suggests that creating a collective mindset will not simply occur as teams spend more time together. Instead, such shared mindsets are more a matter of unlocking the expertise distributed throughout the group (DeChurch & Mesmer-Magnus, 2010). Answering questions like, "Do members know where specialized knowledge exists in the group?", "Do members have faith in one another's expertise?", and "Can team members coordinate and minimize confusion?" become far more critical (Lewis, 2003). Again, within the DAC framework, we would expect teams that engage in behaviors that support Alignment would also excel at recognizing and leveraging the expertise among members of the team.

Between Team Members: Nurturing Cohesive Relationships

Teams must also navigate the relationships that exist between its members. These relationships are often the foundation for the group's collective action. Ideally, these relationships would reflect feelings of psychological safety and trust, robust pathways of communication, and effective strategies for managing disagreements and conflicts that emerge (DeJong, Dirks, & Gillespie, 2016; deWit et al., 2012; Frazier et al., 2017; Marlow et al., 2018). Thus, a key concern for enhancing team effectiveness is understanding what is happening between team members and adjusting as needed.

Myth #8 Teams experience conflict as a group and must collectively work through their disagreements.

Teams are often encouraged to think about how they manage conflict as a group and resolve disagreements collectively (DeChurch & Marks, 2001). Interestingly, though, recent research suggests that conflict originates from specific sources within the team, only if it is not contained does conflict spread throughout the entire group (Shah, Peterson, Jones, & Ferguson, 2021). Specifically, in this study of 84 teams at a bike manufacturing company, each team member was asked to consider their relationship with a specific teammate by answering items like, "We have difficulty getting along." Only 3% of teams experienced conflict as an entire group. Instead, it was far more likely for conflict to emerge among specific team members (i.e., dyads), smaller factions or cliques (i.e., subgroups), or a single team member (i.e., individual) (see Figure 11. Conflict Rarely Engulfs the Entire Team).

This study highlights a need to recognize that a team consists of networks of relationships (Shah et al., 2021). Some challenges may not pertain to the entire group and could be localized within specific areas of the team. This suggests that assessments and interventions designed to improve relationships between team members should simultaneously capture the entire climate in the team as well as specific relationships among group members.
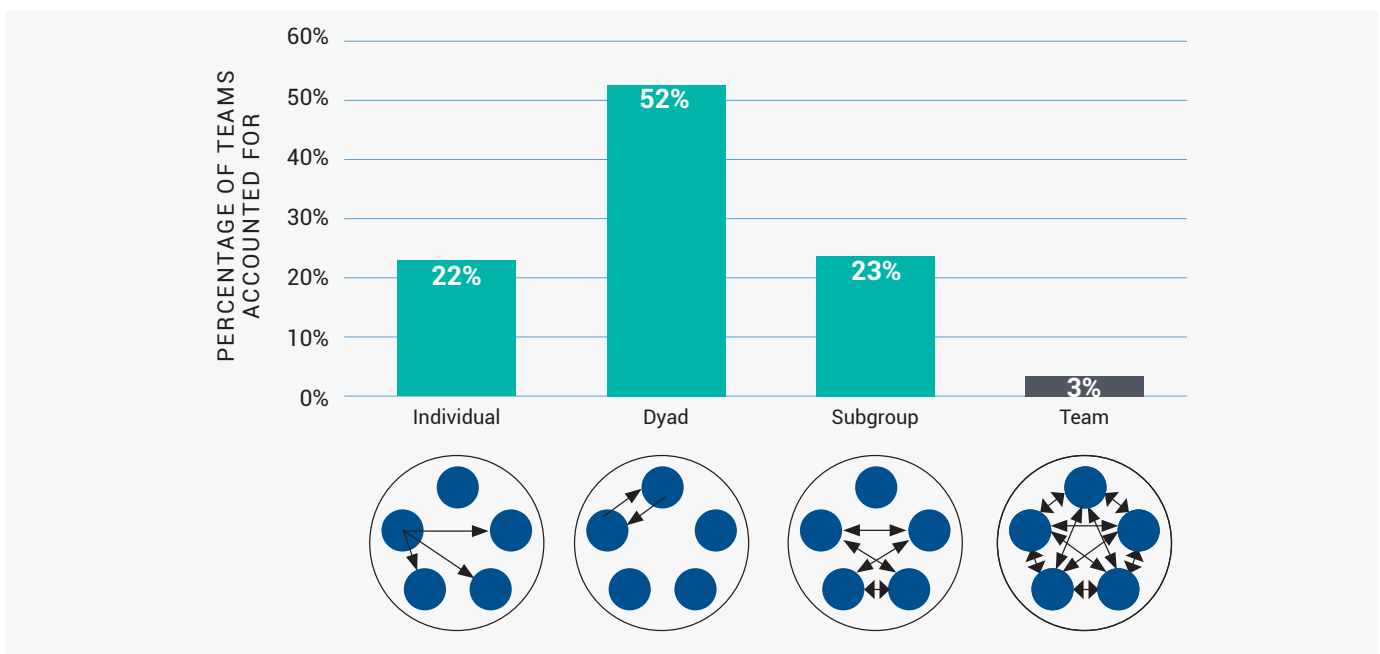
CONFLICT RARELY ENGULFS THE ENTIRE TEAM

FIGURE 11

Myth #9   Trust among team members takes weeks, if not months, to develop.

There is a longstanding belief among scholars and practitioners that teams must progress through specific stages to cultivate high-functioning relationships (cf., Tuckman, 1965). However, recent research has highlighted how foundational aspects of our relationships, like trust, begin forming even after a single and brief interaction. Specifically, scholars have discussed the idea of "swift trust" that forms rapidly, and can be conferred with very minimal direct interaction (Schilke & Huang, 2018). Although this idea is counterintuitive, we can quickly think of examples of swift trust and the mechanisms that facilitate its emergence. For example, members of disaster relief and emergency response teams often come together on a moment's notice and trust one another (Robert, Dennis, & Hung, 2009). This occurs even though they cannot rely on their past working experience nor can they wait to develop a track record.

Instead, with swift trust, team members rely on a range of cues and assumptions that are available as soon as the group is formed (Meyerson, Weick, & Kramer, 1996):

- Role-based trust (e.g., accountants should be good at math)
- Rule-based trust (e.g., norms for trusting in the organization)
- Third-party recommendation–based trust (e.g., if Sue trusts him, then I trust him),
- Dispositional-based trust (e.g., Sue tends to trust most people)

- Category-based trust (e.g., We tend to trust people who appear to be similar to us)

As an example of the speed and power of swift trust, consider a recent study by Schilke and Huang (2018). Participants were brought into a laboratory and half were randomly assigned to immediately engage in a two-minute interpersonal interaction with a partner. During this conversation, participants were asked to introduce themselves and discuss anything they wished in order to get to know each other (e.g., hometown, hobbies, favorite music and movies, etc.). The other half of the participants did not interact at all and immediately began their group's work. Even with just two minutes of interaction, participants were significantly more likely to trust their counterpart and could more accurately judge if the information their partner provided later during the subsequent task was accurate (Figure 12 and 13. Two Minute Interactions Lead to More (Accurate) Trust).

Swift trust highlights the pace at which relationships can begin to form in teams and how their effects could then linger within the group (Schilke & Huang, 2018). In fact, several studies have demonstrated similar effects where other aspects of team member's relationships (e.g., cohesion, conflict) early on in the group's lifespan are associated with performance weeks later (Jehn & Mannix, 2001; Mathieu, Kukenberger, D'Innocenzo, & Reilly, 2015)

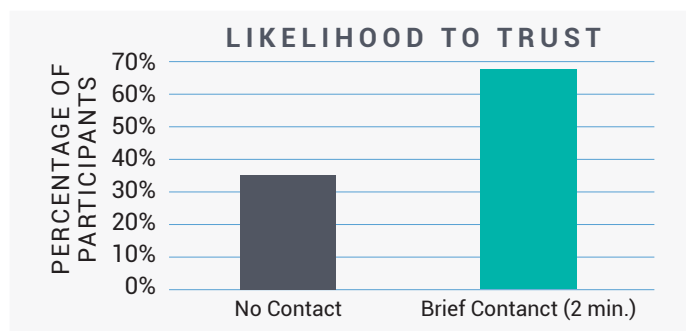## TWO MINUTE INTERACTIONS LEAD TO MORE (ACCURATE) TRUST

LIKELIHOOD TO TRUST — PERCENTAGE OF PARTICIPANTS (No Contact ~35%, Brief Contact (2 min.) ~67%)

FIGURE 12

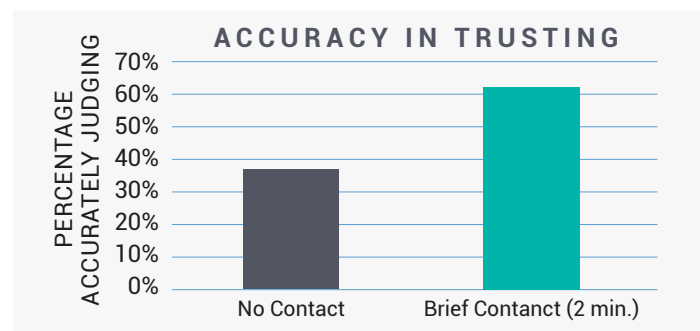**ACCURACY IN TRUSTING** — PERCENTAGE ACCURATELY JUDGING (No Contact ~37%, Brief Contact (2 min.) ~62%)

FIGURE 13

Across Teams: Building Team-to-Team Connections

In today's organizations, multiple teams often have to work across different areas of the organization to deliver results. The ability of teams to work effectively across their boundaries and throughout the organization is critical to team-to-team effectiveness and the success of the broader business.

Myth #10   Team-to-team connections are best orchestrated by an organization's senior leaders.

It can seem like senior leaders are best positioned to help guide the connections that form among teams. In reality, though, there are several ways in which leadership can unfold in multi-team systems (Zaccaro, Dubrow, Torres, & Campbell, 2020). In some contexts, leadership may be shared, rotated, or distributed across multiple groups. For example, in managing the care of a cancer patient, different medical teams may need to actively share influence and distribute information across the entire system (Taplin et al., 2015) (Figure 14. Distributed Leadership in Multi-Team Systems). In this system, each team has its own respective formal leader (i.e., the role marked with an *). However, there is no single individual who is formally responsible for all three teams. Instead, influence would ideally be shared simultaneously within each group and across teams depending on the patient's prognosis, stage of treatment, and specific needs. In fact, in the absence of such collective leadership, and a corresponding lack of shared direction, alignment, and commitment across this "team of teams", we would expect this patient's care to suffer (Taplin et al., 2015).
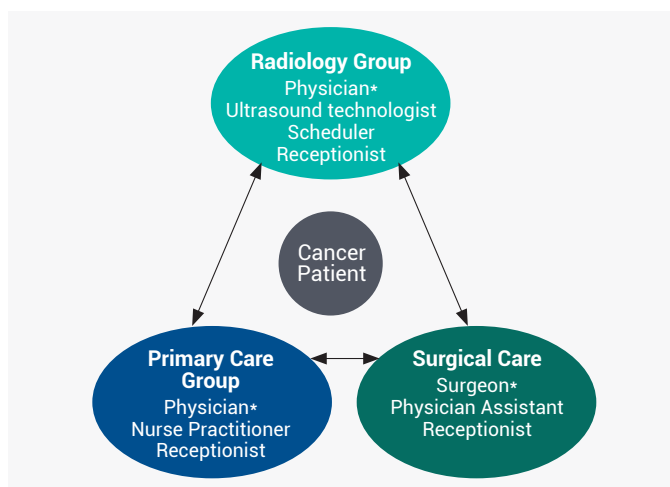
DISTRIBUTED LEADERSHIP IN MULTI-TEAM SYSTEMS

FIGURE 14

In other contexts, formal leaders may occupy more direct, oversight functions when coordinating relationships between teams. For example, teams within rail systems are often arranged hierarchically (see Figure 15. Hierarchical Leadership in Multi-Team Systems). If an operational challenge or crisis emerges (e.g., a blizzard), leaders within network traffic control centers are responsible for synthesizing information across increasingly smaller regional centers. Then, they select an appropriate contingency plan or response and monitor the implementation of this plan (Schipper, 2017). To be clear, even in such a hierarchical structure, leaders in the command center rely on timely and accurate information flowing upwards from the local teams (i.e., dispatcher) and regional teams so that the contingency plans they select are beneficial for the entire system. However, key aspects of formal decision-making and authority rest within the command center.
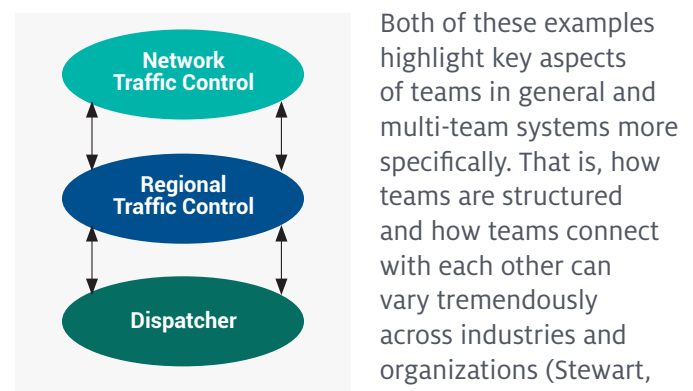
HIERARCHICAL LEADERSHIP IN MULTI-TEAM SYSTEMS

FIGURE 15

Both of these examples highlight key aspects of teams in general and multi-team systems more specifically. That is, how teams are structured and how teams connect with each other can vary tremendously across industries and organizations (Stewart, 2006; Zaccaro et al., 2020). Thus, myths that allude to a "one-size-fits-all" approach to understanding teams, especially team-to-team connections, quickly unravel when considering the nuances of specific contexts.

Myth #11 Effective boundary spanning emerges mainly due to strong team-to-team relationships.

In reality, evidence suggests what occurs *within* the team is often a precursor or catalyst for team-to-team connections. Effective planning among team members allows the group to maintain its own responsibilities while contributing to the entire multi-team system's goals. Thus, these internal processes help teams understand how to balance their own objectives relative to those of other teams within the context of changing conditions (Zaccaro et al., 2020).

As an example, one study examined the effects of different coordination activities within a multi-team system using a simulation for Air Force captains (Davison, Hollenbeck, Barnes, Sleesman, & Ilgen, 2012). This study featured over 3,000 individuals working in 233 fourteen-person systems during a five week course. The course featured a high-fidelity, military-based simulation where three teams had to coordinate their activities: a leadership team with command and oversight responsibilities, an intelligence team that gathered key pieces of information related to the

mission, and the operations team who executed the systems actions (see Figure 16 for an overview of this system).

In this simulation, the three teams performed better if they made more accurate decisions when destroying hostile targets and sparing friendly targets. When examining the results, the researchers found that effective coordination within either operations or intelligence team accounts for more variability in the multi-team systems' performance than all other relationships combined (see Figure 13. Coordination Within Teams Exerts Most Influence on Multi-Team Systems Performance).

These results, as well as those of other studies (Ernst & Chrobot-Mason, 2011; Zaccaro et al., 2020), highlight the importance of the other three components of CCL's Team Effectiveness framework for facilitating strong relationships across teams (i.e., within, among, between team members).

COORDINATION WITHIN TEAMS EXERTS MOST INFLUENCE ON MULTI-TEAM SYSTEMS PERFORMANCE
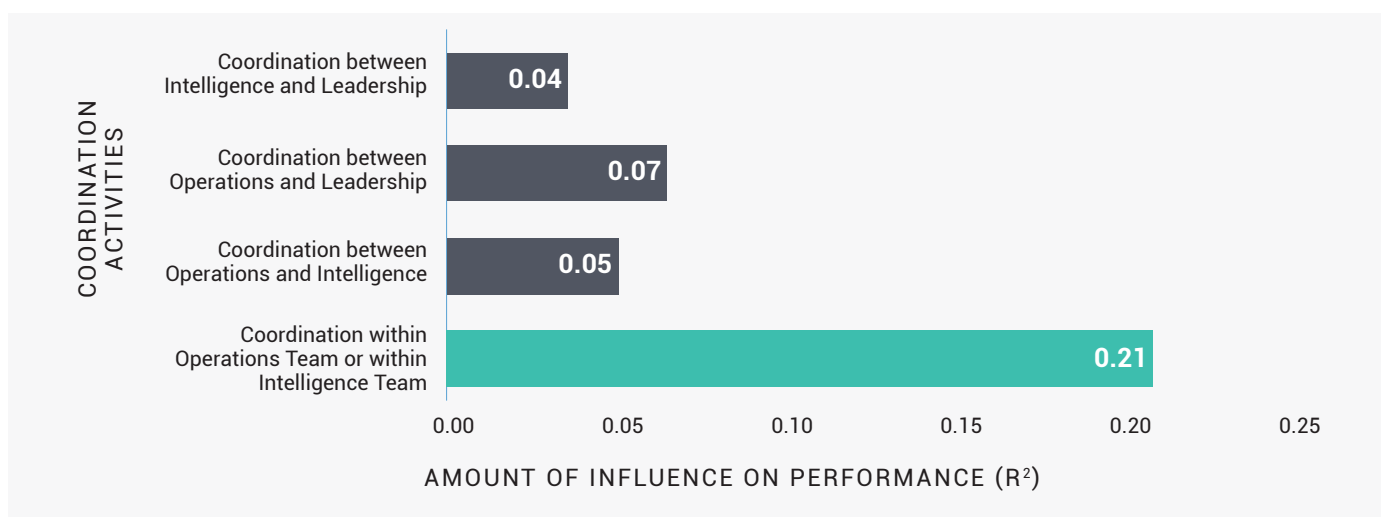

FIGURE 16

Leveraging CCL's Framework to Reveal Broader Truths

If we take a step back and consider these myths as a whole, as well as their corresponding kernels of truth and points of clarification, then four broader truths begin to emerge that can help guide team development. Collectively, they can debunk myths existing within current teams and limit adoption of myths by newly formed teams. These include:

- **Effective teams need intentional and systemic support.** Today's organizations are geared towards supporting and developing individuals. At the same time, team effectiveness represents a broad range of indicators and criteria (e.g., performance, satisfaction, viability, creativity). Taken together, these two commonly endorsed myths point to the need to recognize a larger truth: teams need to be intentionally supported with ongoing development and broader systems.

- **Teams simultaneously reflect "sums" and "parts."** Although teams come together to achieve shared and collective goals, they are, fundamentally, a combination of distinct individuals. The more leaders and team members can keep these somewhat contradictory ideas in mind, the more apt they will be to avoid falling prey to myths.

- **Teams are dynamic.** Although it can be tempting to rely on snapshots or a static perspective of teams, it is more accurate to recognize that the team you are leading tomorrow will look, feel, and collectively think differently than the one you are leading today. Although the degree and pace of change can seem daunting, leaning into and embracing a dynamic perspective on teams can unlock new pathways for facilitating team development.

- **Beliefs about teams and teamwork need to be (re)surfaced.** Given the pervasiveness of myths and misconceptions about teamwork, there is value in openly discussing, questioning, and challenging assumptions about how teams can be the most effective. Once these beliefs are identified, teams and their leaders can consider whether those beliefs are based on anecdotes and personal experience or broader evidence and best practices.

Along with being fundamental components of the CCL Framework of Team Effectiveness (see Figure 17), these truths are cornerstones within the broader work we're doing at CCL. In fact, as evidence of the benefits of challenging myths, we found the largest differences between CCL Alumni and U.S. working adults emerged for several myths that are commonly scrutinized in our work (see Figure 14. CCL Alumni Are Substantially More Likely to Disagree with Myths Related to Top-Down Leadership). CCL Alumni were two to three times more likely than U.S. work adults to *disagree* with statements about top-down, position-focused leadership (52% vs. 26%). This myth is regularly confronted throughout our programs and in our work on collective leadership (McCauley & Fick-Cooper, 2020).

CCL ALUMNI ARE SUBSTANTIALLY MORE LIKELY TO DISAGREE WITH MYTHS RELATED TO TOP-DOWN LEADERSHIP.
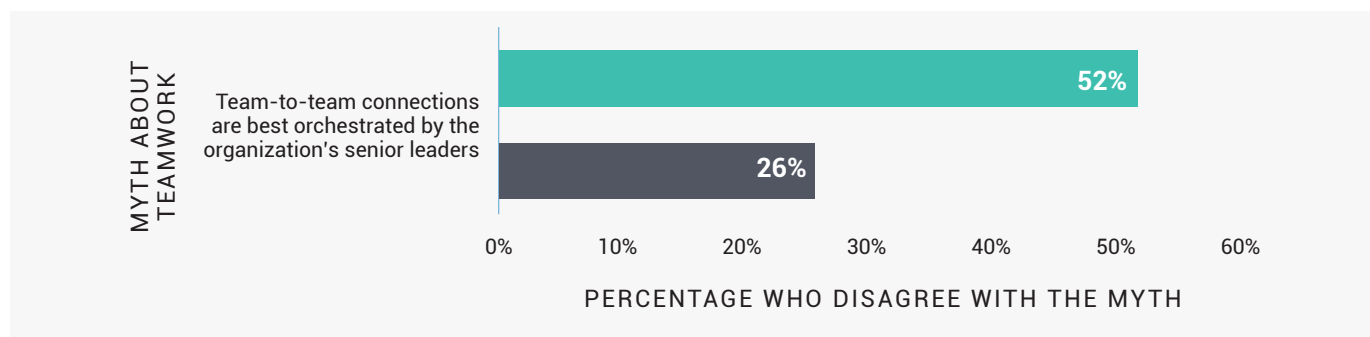

MYTH ABOUT TEAMWORK

Team-to-team connections are best orchestrated by the organization's senior leaders
- 52%
- 26%

0% 10% 20% 30% 40% 50% 60%

PERCENTAGE WHO DISAGREE WITH THE MYTH

FIGURE 17

Conclusion

Organizations continue to rely on teams to accomplish their missions and realize their visions. Teams are often the primary site of idea generation, decision-making, problem-solving, and coordination. At the same time, the proliferation of teams requires careful consideration regarding what we expect and think about these groups. Given the ubiquity of teams, team leaders may run the risk of relying too much on our own experience and falling victim to myths about teamwork. We believe the current insights paper is a first step in offering a fresh point of view that's grounded in evidence-based findings and leverages rigorous models of team effectiveness, like CCL's Team Effectiveness Framework.

References

Aguinis, H., Gottfredson, R. K., & Joo, H. (2013). Avoiding a ''me'' versus ''we'' dilemma: Using performance management to turn teams into a source of competitive advantage. *Business Horizons, 56*, 503-512.

Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology, 32*(4), 665-683.

Barsade, S. G., & Knight, A. P. (2015). Group affect. *Annual Review of Organizational Psychology and Organizational Behavior, 2*, 21-46.

Bell, S. T. (2007). Deep-level composition variables as predictors of team performance: A meta-analysis. *Journal of Applied Psychology, 92*(3), 595-615.

Bell, S. T., & Marentette, B. J. (2011). Team viability for long-term and ongoing organizational teams. *Organizational Psychology Review, 1*(4), 275-292.

Berger, S., van den Brake, H. J., & Bruch, H. (2022). Resource leverage, resource depletion: A multilevel perspective on multiple team membership. *Journal of Applied Psychology, 107*(2), 298-309.

Bosco, F. A., Aguinis, H., Singh, K., Field, J. G., & Pierce, C. A. (2015). Correlational effect size benchmarks. *Journal of Applied Psychology, 100*(2), 431-449.

Bowers, C. A., Baker, D. P., & Salas, E. (1994). Measuring the importance of teamwork: The reliability and validity of job/task analysis indices for team-training design. *Military Psychology, 6*(4), 205-214.

Cahill, A. (2020). *Are You Getting the Best Out of Your Leadership Team?* Retrieved from https://www.ccl.org/articles/white-papers/getting-best-executive-team/

Carton, A. M., & Cummings, J. N. (2012). A theory of subgroups in work teams. *Academy of Management Review, 37*(3), 441-470.

Courtright, S. H., Thurgood, G. R., Stewart, G. L., & Pierotti, A. J. (2015). Structural interdependence in teams: An integrative framework and meta-analysis. *Journal of Applied Psychology, 100*(6), 1825-1846.

Davison, R. B., Hollenbeck, J. R., Barnes, C. M., Sleesman, D. J., & Ilgen, D. R. (2012). Coordinated action in multiteam systems. *Journal of Applied Psychology, 97*(4), 808-824.

Day, D. V., & Dragoni, L. (2015). Leadership development: An outcome-oriented review based on time and levels of analyses. *Annual Review of Organizational Psychology and Organizational Behavior, 2*, 133-156.

DeChurch, L. A., & Marks, M. L. (2001). Maximizing the benefits of task conflict: The role of conflict management. *The International Journal of Conflict Management, 12*(1), 4-22.

DeChurch, L. A., & Mesmer-Magnus, J. R. (2010). The cognitive underpinnings of effective teamwork: A meta-analysis. *Journal of Applied Psychology, 95*(1), 32-53.

DeJong, B. A., Dirks, K. T., & Gillespie, N. (2016). Trust and team performance: A meta-analysis of main effects, moderators, and covariates. *Journal of Applied Psychology, 101*(8), 1134-1150.

deWit, F. R. C., Greer, L. L., & Jehn, K. A. (2012). The paradox of intragroup conflict: A meta-analysis. *Journal of Applied Psychology, 97*(2), 360-390.

Eden, D. (1992). Leadership and expectations: Pygmalion effects and other self-fulfilling prophecies in organizations. *The Leadership Quarterly, 3*(4), 271-305.

Ernst. C. & Chrobot-Mason, D. (2011). *Boundary spanning leadership: Six practices for solving problems, driving innovation, and transforming organizations.* McGraw-Hill: New York.

Frazier, M. L., Fainschmidt, S., Klinger, R. L., Pezeshkan, A., & Vracheva, V. (2017). Psychological safety: A meta-analytic review and extension. *Personnel Psychology, 70*, 113-165.

Frederickson, B. L. (2004). The broaden and build theory of positive emotions. *Philosophical transactions of the royal society of London. Series B: Biological Sciences, 359*, 1367-1377.

Gigerenzer, G., Reb, J., & Laun, S. (2022). Smart heuristics for individuals, teams, and organizations. *Annual Review of Organizational Psychology and Organizational Behavior, 9*, 171-198.

Gladstein, D. L. (1984). Groups in context: A model of task group effectiveness. *Administrative Science Quarterly, 29*(4), 499-517.

Gonzalez-Mule, E., Cockburn, B. S., McCormick, B. W., & Zhao, P. (2020). Team tenure and team performance: A meta analysis and process model. *Personnel Psychology, 73*(1), 151-198.

Hackman, J. R. (1987). The design of work teams. In J. W. Lorsch (Ed.), *Handbook of organizational behavior.* (pp. 315-342). Englewood Cliffs, NJ: Prentice Hall.

Jackson, C. L., Colquitt, J. A., Wesson, M. J., & Zapata-Phelan, C. P. (2006). Psychological collectivism: A measurement validation and linkage to group member performance. *Journal of Applied Psychology, 91*(4), 884-899.

Jehn, K. A., & Mannix, E. A. (2001). The dynamic nature of conflict: A longitudinal study of intragroup conflict and group performance. *Academy of Management Journal, 44*(2), 238-251.

Keiser, N. L., & Arthur Jr., W. (2021). A meta-analysis of the effectiveness of the after-action review (or debrief) and factors that influence its effectiveness. *Journal of Applied Psychology, 106*(1007-1032).

Kozlowski, S. W. J., & Bell, B. S. (2003). Work groups and teams in organizations. In W. C. Borman, D. R. Ilgen, & R. J. Klimoski (Eds.), *Handbook of psychology: Industrial and Organizational Psychology* (Vol. 12, pp. 333-375). New York: Wiley-Blackwell.

Kozlowski, S. W. J., & Ilgen, D. R. (2006). Enhancing the effectiveness of work groups and teams. *Psychological Science in the Public Interest, 7*(3), 77-124.

LePine, J. A., Piccolo, R. F., Jackson, C. L., Mathieu, J. E., & Saul, J. R. (2008). A meta-analysis of teamwork processes: Tests of a multidimensional model and relationships with team effectiveness criteria. *Personnel Psychology, 61*, 273-307.

Leslie, J., & Hoole, E. (2018). *How to lead virtual teams: The power of leveraging polarities*. Retrieved from Greensboro, NC:

Lewis, K. (2003). Measuring transactive memory systems in the field: Scale development and validation. *Journal of Applied Psychology, 88*(4), 587-604.

Liden, R. C., Wayne, S. J., Jaworski, R. A., & Bennett, N. (2004). Social loafing: A field investigation. *Journal of Management, 30*(2), 285-304.

Loignon, A. C., & Wormington, S. (2022). *Psychologically Safe for Some, but Not All?: The Downsides of Assuming Shared Psychological Safety among Senior Leadership Teams.* Retrieved from

Lombardo, M. M., & Eichinger, R. W. (1999). *Eighty-eight assignments for development in place: Enhancing the developmental challenge of existing jobs*. Retrieved from Greensboro, NC:

Loughry, M. L., Ohland, M. W., & Moore, D. D. (2007). Development of a theory based assessment of team member effectiveness. *Educational and Psychological Measurement, 67*, 505-524.

Marlow, S. L., Lacerenza, C. N., Paoletti, J., Burke, C. S., & Salas, E. (2018). Does team communication represent a one-size-fits-all approach? A meta-analysis of team communication and performance. *Organizational Behavior and Human Decision Processes, 144*, 145-170.

Martin, A., & Bal, V. (2015). *The state of teams*. Retrieved from Greensboro, NC:

Mathieu, J., Kukenberger, M. R., D'Innocenzo, L., & Reilly, G. (2015). Modeling reciprocal team cohesion-performance relationships, as impacted by shared leadership and members' competence. *Journal of Applied Psychology, 100*(3), 713-734.

Mathieu, J., Maynard, M. T., Rapp, T., & Gilson, L. (2008). Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future. *Journal of Management, 34*, 410-476.

Mathieu, J., Tannenbaum, S. I., Donsbach, J. S., & Alliger, G. M. (2014). A review and integration of team composition models: Moving toward a dynamic and temporal framework. *Journal of Management, 40*(1), 130-160.

McCauley, C. D., & Fick-Cooper, L. (2020). *Direction, alignment, commitment: Achieving better results through leadership*: Center for Creative Leadership.

Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological Methods, 17*(3), 437-455.

Meyerson, D., Weick, K. E., & Kramer, R. M. (1996). Swift trust in temporary groups. In R. M. Kramer & T. R. Tyler (Eds.), *Trust in organizations* (pp. 166-195). Thousand Oaks, CA: Sage.

Mistry, S., Kirkman, B. L., Moore, O. A., Hanna, A. A., & Rapp, T. (in press). Too many teams? Examining the impact of multiple team memberships and permanent team identification on employees' identity strain, cognitive depletion, and turnover. *Personnel Psychology*. doi:10.1111/peps.12515

Mohammed, S., Ferzandi, L., & Hamilton, K. (2010). Metaphor no more: A 15-year review of the team mental model construct. *Journal of Management, 36*(4), 876-910.

Robert, L. P., Dennis, A. R., & Hung, Y.-T. C. (2009). Individual swfit trust and knowledge-based trust in face-to-face and virtual

team members. *Journal of Management Information Systems, 26*(2), 241-279.

Rousseau, V., Aube, C., & Savoie, A. (2006). Teamwork behaviors: A review and integration of frameworks. *Small Group Research, 37*, 540-570.

Saavedra, R., Earley, P. C., & Van Dyne, L. (1993). Complex interdependence in task-performing groups. *Journal of Applied Psychology, 78*(1), 61-72.

Salas, E., Burke, C. S., & Fowlkes, J. E. (2006). Measuring team performance "in the wild": Challenges and tips. In W. Bennett, C. E. Lance, & D. J. Woehr (Eds.), *Performance measurement: current perspectives and future challenges.* (pp. 245-272). New York: Psychology Press.

Salas, E., Goodwin, G. F., & Burke, C. S. (2009). *Team effectiveness in complex organizations: Cross-disciplinary perspectives and approaches.* New York, NY: Psychology Press.

Salas, E., Sims, D. E., & Burke, C. S. (2005). Is there a "Big Five" in teamwork? *Small Group Research, 36*, 555-599.

Schilke, O., & Huang, L. (2018). Worthy of swift trust? How brief interpersonal contact affects trust accuracy. *Journal of Applied Psychology, 103*(11), 1181-1197.

Schipper, D. (2017). Challenges to multiteam system leadership: An analysis of leadership during the management of railway disruptions. *Cognitive Technological Work, 19*, 445-459.

Shah, P. P., Peterson, R. S., Jones, S. L., & Ferguson, A. J. (2021). Things are not always what they seem: The origins and evolution of intragroup conflict. *Administrative Science Quarterly, 66*(2), 426-474.

Singh, P. (2008). Job analysis for a changing workplace. *Human Resource Management Review, 18*(2), 87-99.

Steiner, I. (1972). *Group processes and productivity.* New York: Academic Press.

Stewart, G. L. (2006). A meta-analytic review of relationships between team design features and team performance. *Journal of Management, 32*(1), 29-54.

Sy, T., Cote, S., & Saavedra, R. (2005). The contagious leader: Impact of the leader's mood on the mood of group members, group affective tone, and group processes. *Journal of Applied Psychology, 90*(2), 295-305.

Taplin, S. H., Weaver, S., Chollette, V., Marks, L. B., Jacobs, A., Schiff, G., . . . Salas, E. (2015). Teams and teamwork during a cancer diagnosis: Interdependency within and between teams. *Journal of Oncology Practice, 11*(3), 231-238.

Tuckman, B. W. (1965). Developmental sequence in small groups. *Psychological Bulletin, 63*(6), 384-399.

Van De Ven, A., Delbecq, A. L., & Koenig, R. (1976). Determinants of coordination modes within organizations. *American Sociological Review, 41*, 322-338.

Vandenberg, R. J. (2006). Statistical and Methodological Myths and Urban Legends: Where, Pray Tell, Did They Get This Idea? *Organizational Research Methods, 9*(2), 194-201.

Volini, E., Schwartz, J., Roy, I., Hauptmann, M., & Van Durme, Y. (2019). Organizational performance: It's a team sport. Retrieved from https://www2.deloitte.com/us/en/insights/focus/human-capital-trends/2019/team-based-organization.html

Walters, S. L., Seibert, S. E., Goering, D., & O'Boyle, E. (2019). A tale of two samples: Do results from online panel data and conventional data converge? *Journal of Business and Psychology, 34*, 425-452.

Wolfson, M. A., D'Innocenzo, L., & Bell, S. T. (in press). Dynamic team composition: A theoretical framework exploring potential and kinetic dynamism in team capabilities. *Journal of Applied Psychology.*

Zaccaro, S. J., Dubrow, S., Torres, E. M., & Campbell, L. N. P. (2020). Multiteam systems: An integrated review and comparison of different forms. *Annual Review of Organizational Psychology and Organizational Behavior, 7*, 479-503.

Appendix: Examining Myths about Teams

To determine the likelihood that people would endorse the myths described in Table 1, we conducted two field studies. One field study recruited working adults from the United States, while the other featured clients who had previously completed an open enrollment course at CCL. Below we describe each of these studies as well as additional results.

Study 1: U.S. Working Adults: Participants and Procedure

Our first study consisted of 947 respondents and was collected via CloudResearch, a company that gives researchers immediate access to millions of diverse, high-quality respondents.[1] The sample of respondents was diverse in terms of their backgrounds and work experience (see Figure A1. Demographic Characteristics of Sample in Study 1). For example, most identify as white (73%), female (60%), and are between 25 and 44 years old (63%). At the same time, approximately half of the respondents indicated they are individual contributors (48%), while the other half (52%) held some position of leadership (ranging from first level to top level). We also observed substantial variability in the respondent's experience working in teams. Specifically, half of the sample currently work in a team (55%) and, of those respondents, the majority (81%) had worked in their team for at least one year.

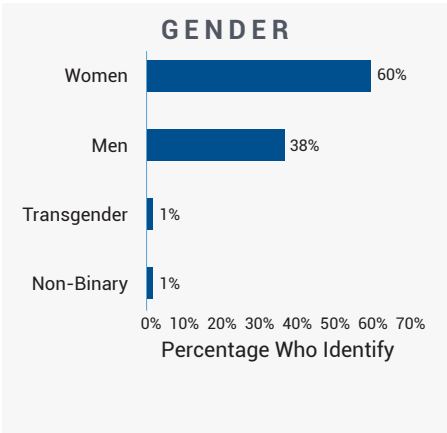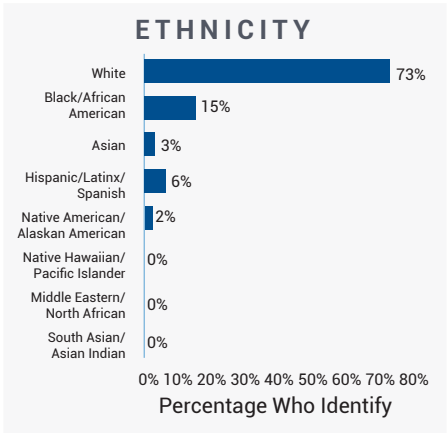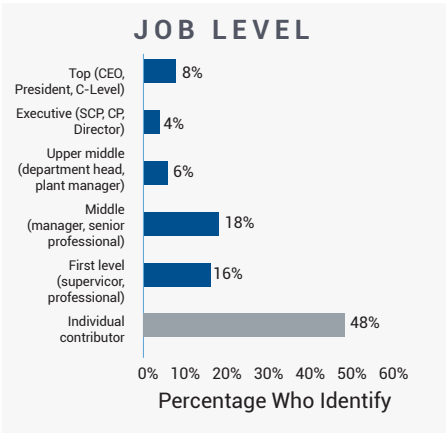### DEMOGRAPHIC CHARACTERISTICS OF SAMPLE IN STUDY 1

FIGURE A1
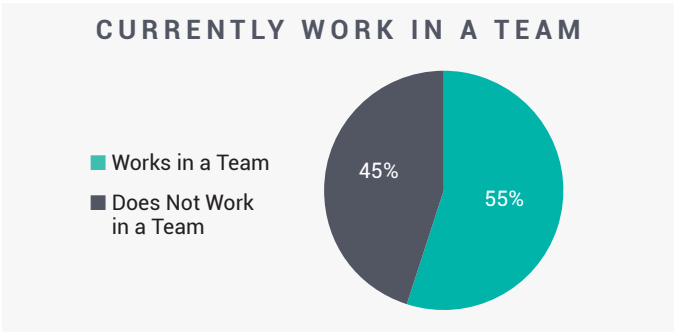

FIGURE A2

FIGURE A3

FIGURE A4

FIGURE A5

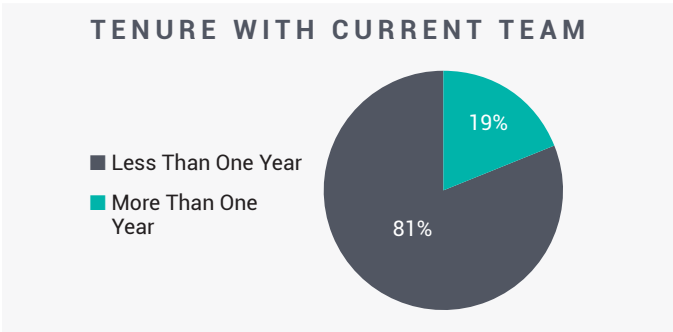[1] Past research has found that participants from online panels provide responses that are of similar, if not better, quality than traditional sources (e.g., subject pools) (e.g., Walters, Seibert, Goering, & O'Boyle, 2019). Nevertheless, we removed 145 participants who failed an attention check item, completed the survey too quickly (< 2 minutes), or provided the same response across the items before proceeding to our analysis (Meade & Craig, 2012).

The survey in this study was part of a larger data collection focusing on myths about various topics at work. When considering the myths about teams, respondents were provided with the following instructions:

"Below are several statements about teams and groups in today's workplace. Please indicate how much you either disagree or agree with each statement. You can base your answers on your personal experiences, what you have heard about these topics from others, or your general impression of today's workplace. If you are unsure about your response, you can select the middle option - "Neither agree nor disagree." Lastly, if you'd like, you can also skip any item below."

Participants rated myths using a five-point scale ranging from *1 – Strongly Disagree to 5 – Strongly Agree*. To reduce fatigue and the amount of burden on a given respondent, participants were randomly presented with seven of the myth statements.

Study 2: Center for Creative Leadership's Clients: Participants and Procedure

Our sample of CCL clients consisted of 402 respondents. As we anticipated, this sample of CCL clients diverged from a traditional working population (i.e., Study 1) in several ways (see Figure A2. Demographic Characteristics of Sample in Study 2). First, more than 90% of the respondents indicated they held a position of leadership (ranging from first level to top level). Second, nearly all of the respondents currently work in a team (93%) and, of those respondents, the majority (89%) had worked in their team for at least one year. Lastly, most of the respondents were white (75%) and male (51%).

We used the same procedure as in Study 1 when surveying former clients from CCL. Specifically, respondents were asked to consider several statements about teams based on their personal experiences, what they heard about those topics, or even their general impressions. All ratings were provided using a 5-point scale *(1 – Strongly Disagree to 5 – Strongly Agree)*. We again sought to reduce the amount of burden on a given respondent by randomly presenting with 5 of the myth statements.
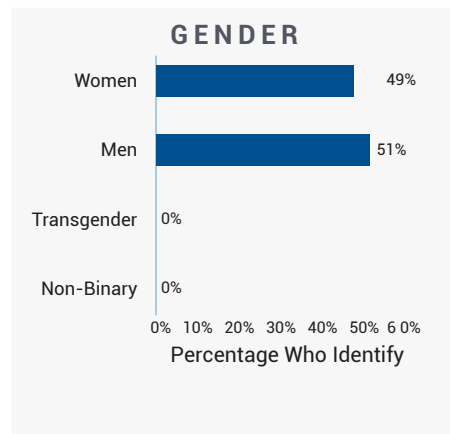
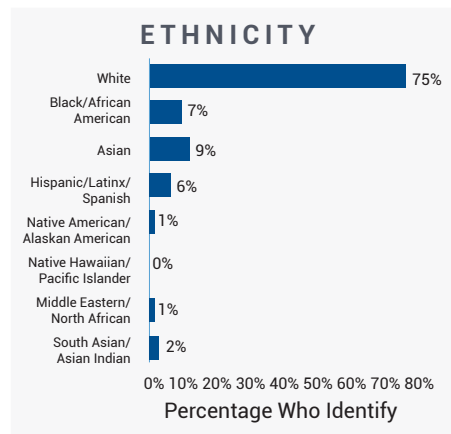## DEMOGRAPHIC CHARACTERISTICS OF SAMPLE IN STUDY 2
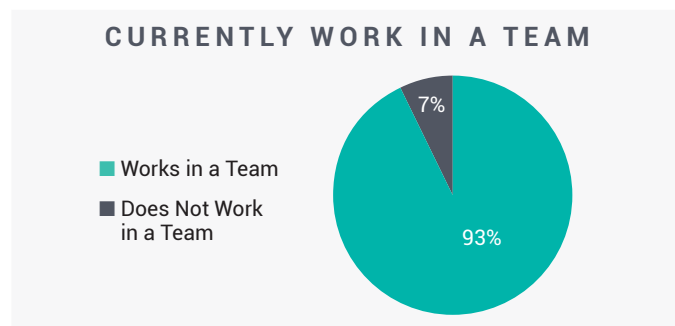

FIGURE A6

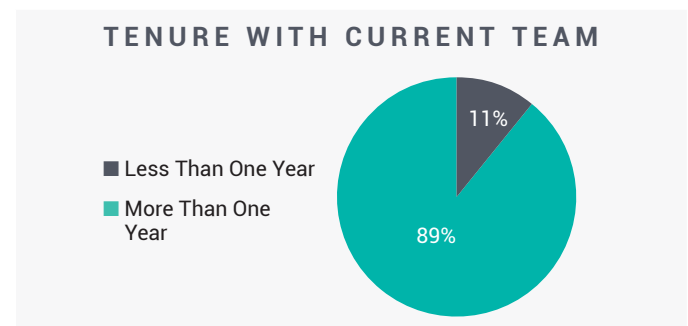FIGURE A7

FIGURE A8

FIGURE A9

FIGURE A10

Reconsidering Myths about Teamwork Using CCL's Framework on Team Effectiveness

Supplementary Analyses

Along with the main findings reported previously, we also conducted several additional analyses to provide further insights. These include calculating descriptive statistics, examining the level of precision for the extent a myth is endorsed, and assessing the degree to which respondent's beliefs about team myths are associated with particular backgrounds.

Descriptive Statistics

Below we report descriptive statistics for each study (Table A1. Descriptive Statistics for Ratings of Team Myths Across Studies). One key finding is that each myth was rated by approximately 40% of the sample in Study 1(n = 367 to 404) and 29% of the sample in Study 2 (n =113 to 124). This reflects our decision to only present a subset of all possible myths to each respondent as a means of reducing their fatigue and enhancing the quality of responses.

Another finding that is worth highlighting is that there is quite a bit of consistency in the distribution of ratings across the myths. That is, these ratings tend to follow a normal distribution with most myths being endorsed to a moderate extent (Study 1: min. average = 3.16 to maximum average = 4.19; Study 2: min. average = 2.84 to maximum average = 4.63) with similar standard deviations and median values.

TABLE A1. DESCRIPTIVE STATISTICS FOR RATINGS OF TEAM MYTHS ACROSS STUDIES

TEAM MYTH	STUDY 1				STUDY 2			
	n	M	MED.	SD	*n*	M	MED.	SD
1. How people feel at work each day largely reflects their personal experiences.	384	3.86	4.00	1.00	122	4.22	4.00	0.79
2. Today's organizations are designed to support effective teamwork.	383	3.59	4.00	1.06	113	2.99	3.00	1.07
3. Teams whose members are satisfied with each other can be considered a high performing group.	389	4.08	4.00	0.90	115	3.44	4.00	1.14
4. Whenever possible, team members should work closely together and rely on one another.	385	4.15	4.00	0.92	120	4.22	4.00	0.90
5. When it comes to staffing teams, it's better to include anyone who has relevant expertise.	389	3.82	4.00	1.02	124	3.30	4.00	1.25
6. It is preferable for team members to "divide and conquer" their work because it is more efficient than other approaches.	389	3.49	4.00	1.09	114	3.28	4.00	1.14
7. By working together and collaborating, team members develop a shared understanding of the tasks at hand.	404	4.19	4.00	0.94	120	4.63	5.00	0.69
8. Teams experience conflict as a group and must collectively work through their disagreements.	397	4.08	4.00	0.98	115	4.23	4.00	0.92
9. Trust among team members takes weeks, if not months, to develop.	380	3.82	4.00	1.06	120	4.16	5.00	1.08
10. Team-to-team connections are best orchestrated by the organization's senior leaders.	387	3.58	4.00	1.04	124	2.84	2.00	1.24
11. Effective boundary spanning emerges mainly due to strong team-to-team relationships.	397	3.90	4.00	0.87	117	4.18	4.00	0.79

---

2   We again removed 4 respondents who completed the survey too quickly (< 2 minutes).

Reconsidering Myths about Teamwork Using CCL's Framework on Team Effectiveness

Level of Precision in Estimating Degree of Endorsement

Because our primary focus in this study was the extent to which respondents endorsed a given myth, the level of precision in the mean values obtained for a particular item is a key metric. Thus, we estimated the standard error of the mean for each myth (SEM). The SEM reflects how much variability we would expect between the average obtained in the current study would generalize to a broader population. The SEM is calculated by dividing the amount of variability observed in the ratings (i.e., the standard deviation) by the square root of the sample size (i.e., n). Thus, the degree to which a study's estimate of the population differs from the population declines as either the standard deviation decreases or the sample size increases.

In both studies, we found relatively small SEMs. For example, in Study 1, the average SEM for any particular myth was .05 (min. = .04; max. = .06). This indicates that the average value reported in this study can be expected to differ from the population by a value of .05 (1% out of the entire 5-point scale). Similarly, with Study 2, the average SEM for any particular myth was .09 (min. = .06; max. = .11), which corresponds with 2% of the entire 5-point scale. Ultimately, this suggests an adequate degree of precision in interpreting the mean level of endorsement for myths across both studies.

Predicting Likelihood of Endorsing or Expressing Uncertainty about Myths

We also considered whether respondents' backgrounds and experiences were associated with their evaluations of the myths about teamwork. We were curious as to whether certain demographic variables predicted their likelihood of endorsing or expressing uncertainty about myths.

Thus, for each respondent, we calculated two additional variables. First, we created an endorsing variable that reflected their average ratings across all myths they were presented. Higher scores for endorsing indicate that a respondent was more likely to agree with the myths they rated. We also created an uncertainty variable,

which reflected the total number of times a respondent selected "neither agree nor disagree" when rating the myths. Thus, higher scores reflect an increased level of uncertainty regarding the myths about teamwork.

Table A2 below provides a bit more information about these variables. Similar to the descriptive statistics presented earlier (Table A1), the typical respondent endorsed the myths they were presented (M = 3.65, SD = 0.62). We also found that, on average, respondents were unsure about at least one myth (M = 1.33, SD = 1.66). Lastly, as one would expect, endorsing was negatively correlated with uncertainty (i.e., the more one endorsed the myths, the less uncertainty they expressed).

TABLE A2. DESCRIPTIVE STATISTICS FOR AND CORRELATION BETWEEN ENDORSING AND UNCERTAINTY

	M	SD	R
Endorsing	3.65	0.62	
Uncertainty	1.33	1.66	-.35 (p <.001)

Note. n = 1347.

We then estimated two separate ordinary least square (OLS) regression models where endorsing and uncertainty where regressed onto various demographic variables (Table A3. More Experience in Teams and Leadership Is Related to Stronger Endorsement of, and Less Uncertainty about, Team Myths.). To maximize the precision of our models, these analyses were conducted using a sample that combined the respondents from both studies (i.e., Study 1 – U.S. population, Study 2 – CCL). The model also features a dummy code for the particular study from which a respondent was drawn (1 = U.S. population).

Perhaps the most interesting finding from these analyses are the effects of experience. Specifically, individuals who were currently working in a team were significantly more likely to endorse the myths (b = .10, p < .05) and significantly less likely to express uncertainty (b = -.39, p < .01). A similar pattern was observed for the job level that respondents occupied. That is, the more senior position of leadership a respondent held, the more likely they were to endorse the myths (b = .04, p < .05) and the less uncertainty they expressed (b = -.06, p = .08).

TABLE A3. MORE EXPERIENCE IN TEAMS AND LEADERSHIP IS RELATED TO STRONGER ENDORSEMENT OF, AND LESS UNCERTAINTY ABOUT, TEAM MYTHS

PREDICTORS	ENDORSING MYTHS			UNCERTAINTY ABOUT MYTHS		
	b	SE	*P*	*b*	SE	*P*
Intercept	3.00	0.21	0.00	0.70	0.54	0.20
Currently Work in Team? (1 = Yes)	0.10	0.05	0.03	-0.39	0.12	0.00
Job Level	0.04	0.01	0.00	-0.06	0.04	0.08
Ethnicity (1 = White)	-0.05	0.05	0.23	-0.17	0.12	0.15
Gender (1= Female)	-0.12	0.04	0.01	0.16	0.11	0.14
Education (1 > High School)	-0.05	0.05	0.28	0.24	0.13	0.05
Fixed Effects: Industry	Yes			Yes		
Fixed effects: Study	Yes			Yes		
R²	.08			.12		
F (df)	2.01 (37, 942)			3.58 (37, 944)		
N	1,144			1,146		

Note. Coefficients are unstandardized.

To be clear, the effects of working in a team and one's level of leadership are relatively small (i.e., <= 40th percentile for effects usually observed in the literature) (Bosco et al., 2015). However, these findings are still consistent with the premise that myths emerge, and can perpetuate, based on an overgeneralization of one's experience working in teams (cf., Vandenberg, 2006).

About The Authors

Andy Loignon

As a Senior Research Scientist at CCL, Andy Loignon is currently working on projects related to work teams and emerging leaders. For work teams, he is exploring how groups engage in different actions and processes in unique ways to reach their objectives as well as how these processes intersect with informal networks in the teams. For emerging leaders, his research is focused, in part, on how young people can overcome socioeconomic barriers and thrive as effective leaders.

Stephanie Wormington

Stephanie Wormington is the Director of Global Strategic Research at CCL, where she oversees the Leadership Analytic and Strategic Research team. A developmental and educational psychologist by training, much of Stephanie's current work focuses on helping individuals, groups, organizations, and communities foster relationships and critically develop equitable, diverse, and inclusive cultures. She is also committed to listening to young and emerging leaders as they navigate key transitions and overcome contextual barriers on their personal and professional trajectories.

George Hallenbeck

As Global Content Lead for CCL's Consultative Portfolio, George has the responsibility for ensuring that the breadth and depth of CCL's world-class content is strategically aligned and configured to meet the needs of clients. Previously in his career at CCL, George has led innovation efforts behind several CCL solutions including Lead 4 Success, Better Conversations Every Day, and several workshop kits. George has authored or co-authored 8 books including *FYI for Learning Agility and Learning Agility: Unlock the Lessons of Experience.* He has written numerous white papers and journal articles and been featured in publications such as The Wall Street Journal, BusinessWeek Online, and CLO Magazine.

CCL LOCATIONS

Americas

+1 336 545 2810

[ccl.org](ccl.org)

Europe, Middle East, Africa

+32 (0) 2 679 09 10

ccl.org/emea

Asia Pacific

+65 6854 6000

ccl.org/apac

Greater China

+86 21 6881 6683

ccl.org/china

Center for Creative Leadership

The Center for Creative Leadership (CCL)® is a top-ranked, global, nonprofit provider of leadership development. Over the past 50 years, we've worked with organizations of all sizes from around the world, including more than 2/3 of the Fortune 1000. Our cutting-edge solutions are steeped in extensive research and our work with hundreds of thousands of leaders at all levels.