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The effects of leadership change on team escalation of commitment

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ABSTRACT

Although teams benefit from developing plans and processes that boost efficiency and reduce uncertainty, they may become too attached to these plans and escalate commitment when an alternative response is needed. Drawing on theories of team leadership, team processes and escalation of commitment, we propose that a change in leadership can help the team reduce commitment to outdated plans and avoid further escalation over time. Across two studies, we tested and found support for our hypotheses and provide evidence that leadership change can break the cycle of escalation by enhancing leader-driven team reflection and refocusing the team on error correction instead of additional investment. We discuss how the results of these studies extend existing theory and add to our understanding of the important role leaders play in enhancing team adaptation and preventing team escalation.

Over the last three decades, research has associated teams with improved workplace productivity (Kirkman & Rosen, 1999), customer satisfaction (Mathieu, Gilson, & Ruddy, 2006) and product/service quality (Cohen & Ledford, 1994). It is therefore not surprising that organizations have shown a steady increase in the use of team based structures (Hollenbeck, Beersma, & Schouten, 2012; Zaccaro & Bader, 2003), given that they allow organizations to improve decision making, reduce inefficiencies, and continually improve work processes (Hunt, 1995). However, given the unpredictability and complexity of organizational and economic environments (Cummings & Worley, 2015), teams must also be able to quickly change their plans and processes in response to feedback and challenges in their environment in order to thrive (Kozlowski & Bell, 2003; Kozlowski, Gully, Nason, & Smith, 1999; Rosen et al., 2011). Therefore, team adaptation has emerged as a critical factor in dynamic situations (Christian, Christian, Pearsall, & Long, 2017), and an important challenge for leaders, because failure to adapt in a timely manner may have severe consequences for performance (Weick, 1993).

Unfortunately, teams and their leaders frequently struggle to recognize the need for change, hindering adaptation (Burke, Stagl, Salas, Pierce, & Kendall, 2006; Johnson, Hollenbeck, DeRue, Barnes, & Jundt, 2013). Once teams develop performance plans, they tend to become attached to them and often take actions “without consciously considering alternatives” (Gersick & Hackman, 1990, p. 68). Therefore, although plans can yield functional benefits, such as saving time and reducing uncertainty in the short term (Zellmer-Bruhn, 2003), they tend to persist even if an alternative response is needed. If left

unchecked, such attachment can result in escalation of commitment, where decision-makers “throw good money after bad” (Staw & Ross, 1987), pursuing a course of action even in light of negative feedback (Keil & Robey, 2001; Staw, 1976).

An excessive commitment to an initial plan therefore reflects a team's failure to adapt and can start the cycle of further escalation by the team. Gersick and Hackman (1990) suggest that a potential solution for breaking teams out of these patterns, without harming their internal cohesion or trust, is a disruptive structural change. Given the critical role that leaders play in team decision making, we suggest that *leadership change* represents a particularly salient event that is disruptive to team plans and may trigger active cognitive processing that breaks a team's existing habits and cognitive biases (Kahneman, Lovallo, & Sibony, 2011). Drawing on Kozlowski, Gully, McHugh, Salas, and Cannon-Bowers's (1996) dynamic theory of team leadership we argue that a new leader joining a team should be particularly motivated to develop an understanding of the team's current situation and to take time to diagnose and reflect on the team's existing plans and performance. Therefore, we focus on the impact of leadership change on leader-driven plan reflection, a team's commitment to a prior plan of action, and escalation behaviors.

We frame our hypotheses through the lens of Marks, Mathieu, and Zaccaro's (2001) recurring phase model of team performance, which suggests that action phases (characterized by goal-oriented behavior) are coupled with transition phases (where assessment, diagnostic and planning behaviors occur) to form complete performance episodes. We argue that during transition phases, new leaders can help the team to

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reevaluate the situation more objectively by creating opportunities for reflection on prior performance and decision making. Because the new leader is not responsible for an initial course of action, he or she is more likely to be able to help the team to reduce initial commitment to their plan when the situation requires adaptation, and also prevent escalation of commitment for subsequent performance episodes (Morgeson, DeRue, & Karam, 2010). Further, we suggest that a new leader will allow the team to objectively evaluate feedback during transition periods to make course corrections in subsequent action phases (Kozlowski et al., 1996). Contrarily, we expect that teams with ongoing leaders will be more likely to remain committed to the team's initial plan, reacting slowly to new information and demonstrating greater escalation behavior in future performance episodes.

We test these hypotheses in two studies. In Study 1, we examine leadership change in teams participating in a computer-based management simulation. For that study, we focus on the tendency of new leaders to assess and diagnose the new situation and drive reflection within the team, and to help the team reduce commitment to its initial course of action. Study 2 replicates the benefits of leader change in reducing initial plan commitment in student teams, and then extends these findings by examining the effects of leadership change on reducing escalation of the initial commitment and increasing focus on error reduction.

By examining the effect of leadership change on team escalation, we aim to advance the existing literature in several important ways. First, we extend the team escalation literature to highlight the critical role of leadership and leadership change. Little research has examined the effects of change in leadership on team performance in adaptive situations, which is surprising given the high frequency of leadership change in organizations (Manderscheid & Ardichvili, 2008) and the ubiquity of teams in dynamic situations. Second, we integrate escalation and adaptation by examining how leaders can stimulate team adaptation through inducing team reflection and helping the team reduce initial plan commitment, and prevent further escalation of commitment over time. Third, we address how leader change can allow teams to better use feedback and to focus on error reduction and performance improvement in future performance episodes.

Theory and hypotheses

Leadership change

Leadership is an important element that often determines a team's success or failure (Zaccaro, Rittman, & Marks, 2001). According to McGrath (1962), "... the primary purpose of leadership is to ensure that the group fulfills all critical functions necessary to its own maintenance and the accomplishment of its task" (p. 5). The leader helps the team develop strategic direction, promotes effective teamwork, and supports the coordination of collective actions (Mehra, Smith, Dixon, & Robertson, 2006). When team members are able to work together effectively, the team can devote its resources to its tasks rather than to internal team functioning. As a result, effective team leaders take on different role functions that are required for team's performance and goal attainment. For example, by encouraging team participation in decision making, leaders induce the feelings of empowerment (Ahearne, Mathieu, & Rapp, 2005; Leach, Wall, & Jackson, 2003). A sense of ownership and responsibility for work outcomes facilitates goal commitment, even when encountering setbacks (Chesney & Locke, 1991; Locke & Latham, 1990).

Teams, however, are not static—both the internal and external context of a team is subject to shifting events (Burke et al., 2006). One such event is a change to team composition, such as when members leave a team (Christian, Pearsall, Christian, & Ellis, 2014; DeRue, Hollenbeck, Johnson, Ilgen, & Jundt, 2008), or new members are added (Lewis, Belliveau, Herndon, & Keller, 2007; Summers, Humphrey, & Ferris, 2012). However, teams also experience leadership change, the

entry and exit of leaders in teams, which may occur due to turnover, promotion, reassignments, or changes to work design. Leaders might also be forced to leave the team due to poor performance. Regardless of its cause, such an event profoundly affects the team's social relationships, knowledge structure, and consequently, team performance (Levine, Choi, & Moreland, 2003; Lewis et al., 2007).

Given a leader's core role within a team, leadership change may be particularly detrimental to team functioning by disrupting the team's structure and processes (Rao & Argote, 2006), interfering with effective task coordination, and undermining the team's ability to effectively perform its tasks (Moreland & Levine, 1982). Likewise, it forces the team to spend time and effort adjusting to the new leader (Levine & Moreland, 1999; Moreland & Levine, 1989), while eliminating access to the knowledge of the departing leader (Argote, 1999). Nevertheless, when a situation requires adaptation, leadership change might actually facilitate effective team performance by establishing behaviors that are more appropriate to the situation at hand. In particular, new leaders may enable teams to break out of counterproductive routines and cycles of escalation of commitment (Gersick & Hackman, 1990).

Specifically, we argue that a change in leadership will enable teams to reduce their escalation of commitment by inducing leader-directed plan reflection in the team, reducing commitment to an original plan and escalation behaviors, and allowing for a greater focus on error reduction over continued investment.

Leadership change and plan reflection

Kozlowski et al.'s (1996) dynamic model of team leadership proposes that a primary function of team leadership is situational assessment and intervention. When a new leader joins a team, he or she tends to be motivated to gain an understanding of the team itself as well as its current context and prior decisions (Levine et al., 2003; Sauer, 2011). New leaders are expected to quickly capture the complexities of their environment and evaluate the effectiveness of the team's current course of action, and often feel pressure to make changes and improve upon past performance (Levine et al., 2003; O'Hara, 2014). Thus, new leaders will tend to initially set aside time to consider the consequences of their team's strategies and encourage their teams to collectively assess how they arrived at their previous choices (Zaccaro et al., 2001), since fostering collective processing is especially important following major task engagements (Kozlowski et al., 1996). Such jointly backward and forward-looking assessments are referred to as *team reflection* and are commonly identified as a means of improving processes, dealing with problems and learning from experiences (Konradt, Otte, Schippers, & Steenfatt, 2016; Schippers, Edmondson, & West, 2014). The extent to which teams reflect upon and adapt their functioning is positively related to team performance (Schippers, Den Hartog, Koopman, & van Knippenberg, 2008; Schippers, Den Hartog, Koopman, & Wienk, 2003; Schippers, Homan, & Knippenberg, 2013), team effectiveness (Widmer, Schippers, & West, 2009) and team innovation (Schippers, West, & Dawson, 2015). Reflection includes both gaining an awareness of, and challenging hidden assumptions of the team and is therefore often associated with deconstructing long-held beliefs or habitual practices (Fook & Gardner, 2007).

Unfortunately, teams rarely reflect spontaneously (Schippers, 2003; Schippers et al., 2003; Widmer et al., 2009) and tend to behave in habitual ways, even when presented with evidence that their behavior may be dysfunctional (Gersick & Hackman, 1990; Schippers et al., 2014). Careful plan reflection takes time and effort (Konradt et al., 2016; Wainwright, Shepard, Harman, & Stephens, 2010), which teams may be unwilling to expend, and instead prefer to simply follow their predetermined course of action without disrupting the team's normal behavioral patterns. Similarly, ongoing team leaders are less likely to see the need to encourage their team to reflect upon past information processing and interaction patterns, especially when their previous decisions could be thought of as successes.

Contrarily, new leaders are more likely to instigate the process of collective reflection within the team, inquiring about a team's past choices, and taking the time to discuss and evaluate the team's actions and current situation (Kozlowski et al., 1996). This might be in part due to the new leader's desire to assert himself or herself and show that he or she is now in charge. By questioning the fundamentals of the previous course of action, the new leader signals about his or her own skills and abilities to lead the team going forward (Antonakis, Bastardo, Jacquart, & Shamir, 2016; Spence, 2002). Therefore, we expect that teams that experience leadership change are more likely to engage in leader-directed plan reflection, compared to teams with ongoing leaders, and hypothesize the following:

Hypothesis 1. Leadership change is positively related to leader-directed plan reflection.

Leadership change and plan commitment

Teams often rely heavily on prior planning in performing their daily tasks (Gersick & Hackman, 1990). As teams plan and perform tasks, they gain experience with the task environment and tend to develop regular procedures and plans for dealing with repeated task demands. These plans can often be executed without devoting much attention to them, thus preserving limited information-processing and decision making capacity for other tasks (Rico, Sánchez-Manzanares, Gil, & Gibson, 2008). Plans and behavior patterns can also enable coordination and provide some degree of stability of behavior, which allow expectations about the behavior of other team members to be formed (Becker, 2004).

However, once a plan is adopted by the team members, it is more difficult for the team to expand its behavioral repertoire and continuously improve and adapt to novel and changing demands. Such commitment to the initial plan or decision can prevent the team from critically reflecting on the relevance of the existing practices and properly responding to new information (Kelly & Milkman, 2013), potentially leading to escalation of commitment. Escalation of commitment is a multi-stage process that unfolds over time. The first stage of escalation is dominated by the initial commitment to a course of action in the face of feedback. Initial commitment may often begin verbally, agreeing to a choice or decision, then compounds through investing significant time and attention, and generally culminates in an initial investment of scarce resources (Brockner, 1992; Staw & Ross, 1987). Initial commitment, therefore, often represents a significant investment in time, assets and social capital, making it difficult for decision making individuals and groups to break free from their initial plan and direction even when they receive feedback about its weaknesses or failings.

Marks et al.'s (2001) temporal model of team processes suggests that a team's focus should change as it moves through action phases, where decisions are made and actions taken, to transition phases, where teams receive and process feedback in preparation for the next action phase. Teams' initial commitment to their plan through an action phase may hamper their ability to analyze performance feedback during transition periods and adapt their behaviors in the subsequent action phase. Teams hoping to change direction must be focused on finding alternative strategies and behaviors that better fit with the new information they receive (Randall, Resick, & DeChurch, 2011). In order to adapt and avoid deepening the initial commitment, teams must identify the relevant environmental cues that indicate the need for change (Kozlowski et al., 1999; Kozlowski & Bell, 2003). Team members must also be attuned to each other's behaviors (Porter et al., 2003), and willing to "update" their behavioral repertoires and initial plans (Uitdewilligen, Waller, & Pitariu, 2013). However, plan commitment—the reliance on initial plans—can promote information processing failures. For example, by not revising conclusions in the presence of new information, teams can further promote escalation tendencies. These information

processing failures may not only lead to misinterpretation of the situation, but also prevent functional adjustments to new circumstances that require team adaptation.

The role of the leader is especially important when change is needed, given that the leader is partly responsible for ascribing meaning to the situation and communicating that meaning to other team members (Morgeson et al., 2010). Whereas ongoing leaders may be less willing to adapt to the external environment due to their commitment to a previous strategic direction (Hambrick & Fukutomi, 1991), new leaders are not as invested in the team's existing plans. Therefore, the new leader may stimulate the development of novel solutions that can help the team to accomplish tasks more efficiently (Kozlowski et al., 1999). As a result, we expect that teams that experience leadership change are less likely to remain committed to their initial plans, thus hypothesizing the following:

Hypothesis 2. Leadership change is negatively related to team initial plan commitment.

Leadership change and team escalation of commitment

During the second stage of escalation, the negative consequences of a team's initial investment are clear and unavoidable, indicating that the original course of action is unlikely to be optimal, which represents a sunk cost. Decision-makers must then either continue with further investment in an attempt to recover the previous costs or to withdraw entirely from the course of action (Staw & Ross, 1989). Escalation of commitment begins to compound when decision-makers choose to invest further resources in a failing course of action even when the available information indicates that it should be abandoned (Keil & Robey, 2001; Staw, 1976). Unfortunately, the more resources (e.g., time, effort, and money) that have already been spent on an investment, the more likely a decision maker escalates commitment to it (Whyte, 1986). The decision to persist is based not just on the action's initial gains, but also on psychological and social determinants (Staw & Ross, 1989).

Research in escalation has provided important insights into factors that cause teams to be resistant to change and to escalate commitment to existing courses of action. Staw (1981) identified several cognitive and social factors that underlie such irrational persistence (Bazerman, Giuliano, & Appelman, 1984; Staw, 1981). Most critically for teams is the need to justify their initial decision and to protect their own self-image and external reputation (Aronson, 1968). Then, as team members bond with their teammates and identify with the team, such social forces drive team members to commit additional resources to their original plan, and invest additional time and energy, in hope of turning the situation around (Keil et al., 2000; Sleesman, Conlon, McNamara, & Miles, 2012). Escalation of commitment can also be driven by the need to be consistent in one's actions (Cialdini, 1993; Staw & Ross, 1980), justifying past behavior, and avoiding the regret that would be experienced by not investing further resources (Aronson, 1968).

These cognitive and social forces drive team members and their leaders to commit additional resources, invest additional time and energy and even hold back information that would undermine their position, in hope of turning the situation around (Sleesman et al., 2012). Although the role of leaders is to evaluate feedback objectively and help their teams to strategically adapt (Kozlowski et al., 1996), they are subject to the same cognitive and emotional biases as their teams and may be unwilling or unable to assess the situation clearly. For example, because team leaders are the "face" of the team, and are often accountable for its performance, they tend to feel the need to justify the initial decision, strengthening the desire to protect the team's reputation, and exacerbating the effects of sunk costs (Brockner, 1992; Soman, 2001; Zhang & Baumeister, 2006).

Further, ongoing leaders may perceive a failing project as a personal failure, and may be thus motivated to persist with a previous decision

by further committing to their initial plans because of a need to protect their own self-image (Aronson, 1968; Brockner et al., 1986). These leaders may even choose to invest further resources to not only prove to others that they were not wrong in an earlier decision (Keil et al., 2000), but also to remain consistent for their current and future decisions. Moreover, abandoning a previous plan might also be especially difficult for teams with leaders who were personally involved during plan generation, because individuals responsible for previous failures are generally more likely to invest additional resources to these projects than people who have taken over in midstream (Bazerman et al., 1984; Staw, 1981). Therefore, by committing to the initial plan of action, ongoing leaders are more likely to engage in further escalation behaviors, which becomes increasingly difficult to break.

Whereas ongoing leaders may choose to escalate commitment to avoid appearing inconsistent, these behavioral norms do not govern the degree of commitment among new leaders. When a new leader considers a different course of action, his or her decision is less likely to be perceived as “inconsistent” with past behaviors, and he or she has less need to justify any decisions made by the team under the previous leader (Bragger, Hantula, Bragger, Kirnan, & Kutcher, 2003). Because the new leader never endorsed any previous decisions and need not feel responsible for previous mistakes, he or she has the opportunity to help the team to reevaluate the situation more objectively (Bowen, 1987; Bragger et al., 2003). Further, new leader does not perceive any direct benefits for committing to the previous plan (Schulz-Hardt, Thurow-Kröning, & Frey, 2009). Handing off decisions to a new decision-maker can decrease the effects of personal responsibility and thus reduce the likelihood of committing additional resources to any previous investments or plans (Kelly & Milkman, 2013).

Therefore, by helping the team to step away from any preconceived interpretations, the new leader can not only clarify why certain actions are more or less appropriate in a given situation (Morgeson et al., 2010; Weick, 1995), but also reduce any existent commitments or escalation tendencies. A new leader is more likely to stimulate “rethinking” in a way that inspires the team to be reflexive, and that collective reflection by the team helps members to consider new points of view and question old assumptions (Schipper et al., 2014; van Ginkel & van Knippenberg, 2009) and generate new insights and action plans (Walker, Henderson, Cooke, & Creedy, 2011).

Therefore, we argue that because teams with new leaders will engage in less initial plan commitment, they are less likely to further escalate their commitment to the original plan and hypothesize the following:

Hypothesis 3. Team initial plan commitment mediates the relationship between leadership change and team escalation of commitment.

Leadership change and team error reduction

During transition phases, teams will tend to evaluate feedback from previous performance episodes and develop new plans of action for subsequent performance episodes (Marks et al., 2001). Teams that are able to adapt and avoid committing further resources to the initial course of action should still be driven to improve their future performance. In such cases, a primary way to improve performance without additional cost is to identify and correct prior mistakes (Tovey, Uren, & Sheldon, 2010).

Teams with ongoing leaders, still committed to their initial plans, may have trouble detecting errors because they may engage in biased information processing, actively seeking evidence that support their prior decision and ignoring evidence that does not (e.g., confirmation bias, Kelly & Milkman, 2013). Due to confirmation bias, individuals do not fully analyze evidence that contradicts their preconceived notions of a current situation (Jonas, Schulz-Hardt, Frey, & Thelen, 2001). Moreover, even if the team does recognize errors and seek to correct them, a leader that has been working with the team to develop the initial plan may be unwilling to accept critical feedback and thus will be less likely to alter the plan (Brockner, 1992). When team leaders feel personally responsible for team performance, being objective about negative feedback may be difficult. Therefore, ongoing leaders might have difficulty engaging in reflective behaviors. They are less likely to challenge previously made decisions or consider new ideas (Hambrick & Fukutomi, 1991).

Contrarily, a new leader should be beneficial in helping the team to identify when errors occur and how to correct for these errors. Reflection requires the team to question their previous assumptions, especially when presented with conflicting information. For instance, by asking critical questions revolving around identifying and resolving problems, new leaders can help the team generate new insights and consider alternative actions. Moreover, because the new leader has no stake in the status quo, he or she can promote an open discussion among team members in order to further reconstruct past performance (Kasl, Marsick, & Dechant, 1997; Schippers et al., 2008; van Offenbeek, 2001).

By providing feedback on the team's prior plan and actions, the new leader can not only facilitate team learning (Gibson & Vermeulen, 2003), but also help the team members adapt their behavior in order to work more effectively in the future (Morgeson et al., 2010). Feedback allows the team to build awareness of their capabilities and encourage them to reassess their decision quality (Kozlowski et al., 1996). Thus, by not committing to the initial plan, the new leader can enhance the team's ability to self-correct and reduce the number of mistakes made by the team as a whole (Burke et al., 2006; Morgeson et al., 2010). Thus, we hypothesize the following (see Fig. 1):

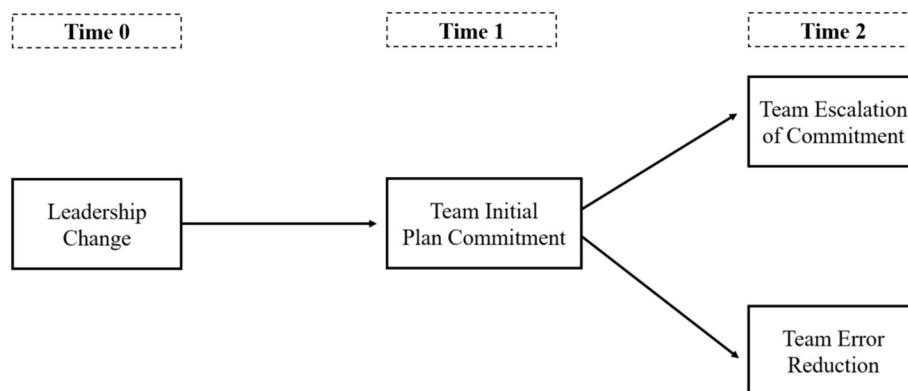


Fig. 1. Study 2: hypothesized model.

Hypothesis 4. Team initial plan commitment mediates the relationship between leadership change and team error reduction.

We conducted two studies to test these hypotheses. The first study conducted in a laboratory setting uncovered the underlying effects of leadership change on the leaders' and teams' behaviors. We link leadership change with both leader-driven plan reflection ([Hypothesis 1](#)) and team initial plan commitment ([Hypothesis 2](#)). Study 2 replicates those findings related to plan commitment and extends them by examining the effect of leadership change on escalation and error correction. Specifically, we provide additional support for [Hypothesis 2](#) and further demonstrate that by avoiding initial plan commitment, leadership change reduces escalation of commitment ([Hypothesis 3](#)) and promotes error reduction behaviors ([Hypothesis 4](#)).

Study 1 method

Sample

Participants included 132 undergraduate business students enrolled in an introductory management course at a large southeastern university in the United States. Of the 132 students, 67 (51%) were male, 82 (62%) were White. Students were randomized into 44 three-member teams and participated in exchange for course credit.

Procedures

Upon arrival at the lab, students were randomly assigned to their team and condition with one member of the team randomly assigned to be the leader. Team members were allowed to communicate freely with all members of their team and to take notes on paper that was provided. The experimenter provided a description and overview of the simulation and explained that the overall objective of each team was to maximize their revenue. Next, teams participated in an online tutorial describing the basic simulation set up and explaining the various screens and how to navigate between them (see task description below). After the tutorial, teams proceeded with the simulation which was broken into two rounds (action phases) with a transition phase in between ([Marks et al., 2001](#)). At the end of the first round, teams received the experimental manipulation (see manipulation description below) and then all leaders were instructed to take up to five minutes to discuss the results of the first round with their team members and formulate a strategy going forward (the transition phase). The team discussions were video recorded and the plan reflection measure coded from the recordings. Then, teams completed the second round of the simulation (second action phase), which provided the initial plan commitment measure.

Experimental task

Teams completed the *New Venture Exercise: The Food Truck Challenge* computer-based management simulation ([Roberto, 2016](#)). Teams collectively played the role of a food sales team and strove to maximize their revenue over five simulated weeks by selling desserts at six various locations in the city of Boomtown. Working collectively, teams reviewed basic market data, and had to decide each week whether to (1) conduct additional market research, (2) manage a food truck, or (3) manage a small pushcart. The simulation is equipped with a number of scenarios, each with different optimal outcomes, allowing the teams to complete multiple independent rounds.

Leadership change manipulation

Following completion of the first round of the simulation, 22 of the teams (50%) received the leadership change manipulation, which consisted of rotating each leader to a different team. For example, the

leader of Team 1 would become the new leader for Team 2, etc. Thus, half of the teams proceeded through the rest of the simulation with a newly assigned leader (i.e., teams with leadership change), whereas the other half continued the simulation with the originally assigned leader (i.e., teams with ongoing leadership).

Measures

Plan reflection

Leader-directed plan reflection within the team was measured by coding the leaders' interactions with their team members during the dedicated discussion session between the rounds (transition phase). Our measure of plan reflection captures whether the teams engaged in reflection and assessment of their previous performance in response to leader demands or encouragement. It was captured dichotomously, and also by the duration (in minutes) of team discussions in which the leader stimulated the team to exchange information and to reflect about team actions and events from Round 1.

Team initial plan commitment

Commitment to the initial plan was measured by the repeated use of strategies from the first round into the second. Each simulated week, the team could choose among six locations in Boomtown in which to sell (downtown, arts district, train station, university, market, and beach). We measured team initial plan commitment through the use of consecutive locations between rounds. For example, a team that sold at the beach in round 1 and then sold at the beach again three out of five weeks in round 2 was given a score of 3 for plan commitment, corresponding to the number of weeks the same location was selected in round 2. Given the large number of locations, and the fact that the relative benefits of each location were completely different between rounds, there should be a relatively low level of repeated locations in the five weeks. Thus, higher repetition of locations corresponds to greater initial plan commitment.

Study 1 results

Means, standard deviations, and intercorrelations among the variables are included in [Table 1](#).

In [Hypothesis 1](#), we proposed that leadership change would increase leader-driven plan reflection within the team. A one-way analysis of variance (ANOVA) contrast test was calculated on plan reflection. As hypothesized, teams that experienced leadership change were more likely to engage in leader-driven plan reflection ($M = 0.95$, $SD = 0.21$) than teams with ongoing leaders ($M = 0.55$, $SD = 0.51$; $t(42) = 3.47$, $p < 0.01$). As shown in [Table 2](#), a logistic regression analysis similarly showed that leadership change significantly increased plan reflection even after controlling for gender composition of the team (Wald $\chi^2(1) = 6.69$, $p < 0.01$).

We also examined the length of the plan reflection periods and found that teams with new leaders conducted longer leader-driven plan reflection episodes ($M = 2.48$ min; $SD = 1.22$), compared to teams with

Table 1

Means, standard deviations, and intercorrelations among variables of interest: Study 1.

Variable	Mean	SD	1	2	3	4
1 Leadership change	0.50	0.51	–			
2 Plan reflection	0.75	0.44	0.47**	–		
3 Team initial plan commitment	1.68	1.55	–0.36*	–0.29	–	
4 % males	0.51	0.28	–0.03	–0.15	–0.07	–

Note. N = 44 teams; leadership condition: leadership change = 1; ongoing leadership = 0.

* $p < 0.05$.

** $p < 0.01$.

Table 2
Logistic regression results: Study 1.

Independent variable	Plan reflection					
	B	SE B	Wald χ^2	p	OR	95% CI OR
Leadership change	2.90	1.12	6.69	0.01	18.15	[2.02, 163.21]
% males	-1.41	1.46	0.93	0.33	0.24	[0.01, 4.26]

Note. N = 44 teams; leadership condition: leadership change = 1; ongoing leadership = 0.

Table 3
OLS regression results: Study 1.

Independent variable	Team initial plan commitment				
	B	SE B	β	t	p
Leadership change	-1.09	0.45	-0.36	-2.46	0.02
% males	-0.44	0.82	-0.08	-0.53	0.59

Note. N = 44 teams; leadership condition: leadership change = 1; ongoing leadership = 0.

ongoing leadership ($M = 0.87$ min; $SD = 1.12$; $t(42) = 4.58$, $p < 0.01$). Together, these findings provide support for [Hypothesis 1](#).

[Hypothesis 2](#) predicted that leadership change would reduce the team's initial plan commitment. An ANOVA contrast test was calculated on team initial plan commitment by examining location usage. Teams that experienced leadership change were less likely to use the same locations ($M = 1.14$; $SD = 1.49$) compared to teams with ongoing leaders ($M = 2.23$; $SD = 1.44$; $t(42) = 2.46$, $p < 0.05$). As shown in [Table 3](#), a regression analysis also showed that leadership change significantly predicted team initial plan commitment through the usage of consecutive locations (unstandardized coefficient = -1.09 , $p < 0.05$) even after controlling for gender composition of the team. These results provide support for [Hypothesis 2](#).

Study 2 method

Sample

Participants included 255 undergraduate business students enrolled in a semester-long introductory management course at a large southeastern university in the United States. Of the 255 students, 156 (61%) were male, 145 (57%) were White. As part of their course requirement, students were configured within 50 teams of three to seven members and worked in these teams on a series of project assignments dispersed over the full semester (for similar approaches see [Walter, Cole, van der Vegt, Rubin, & Bommer, 2012](#); [Côté, 2010](#); [Kent & Moss, 1994](#); [Taggar, Hackew, & Saha, 1999](#)). Each team had on average five members ($M = 5.10$). Two teams had three members, nine teams had four members, 22 teams had five members, 16 teams had six members and one team had seven members.

Procedures

Data for Study 2 were collected over three class periods over two semesters. At the beginning of each semester, students were randomly assigned to 50 teams and one member of the team was randomly assigned to be the leader. Students worked within their teams to complete all major assignments for the class throughout the semester. Team leaders were responsible for facilitating team success by assessing progress toward team goals and keeping the team on task and on track. Toward the end of the semester, teams completed a computer-based simulation as part of their course grade, during which they received the experimental manipulation (see below). During the simulation, leaders

were responsible for getting all team members to participate and for guiding the decision-making process of the team by making sure that all team members understand the concepts and information necessary for the completion of the simulation. Overall team performance during the semester formed a substantial percentage of each individual member's class grade.

Experimental task

A computer-based change management simulation was used as the experimental platform ([ExperienceChange, 2013](#)), and it took three class periods to complete. Participants played the role of change consultants who were hired to guide the change efforts to help the target company with decreasing revenue and market share. The team's objective was to develop and implement a change plan that maximized efficiency and built stakeholder buy-in, while minimizing the associated costs. During the first two classes dedicated to the simulation (Day 1 and Day 2), each team was given two and a half hours total (across both class periods) for gathering information and planning their change approach. On Day 3 (after the leader change manipulation), all teams were given another hour for the actual implementation of their plan.

The simulation portrayed a realistic business situation that provides a good platform for a variety of team-based behaviors such as communication, coordination and team decision making. It includes an objective scoring system that assigns a score to each change tactic based on implementation sequence. Although the teams could implement any number of tactics, each tactic had associated cost in terms of time and budget. More successful change efforts used the fewest number of tactics possible (thereby using less time and money). In their first two simulation meeting sessions (during Day 1 and Day 2), the teams reviewed the background information of the case, the list of possible tactics, and the change model upon which the simulation was based. The teams then created an action plan (during Day 2), in which they detailed the specific tactics they intended to use during the execution of the plan in the final day of class (Day 3). Once the plan was finalized, the teams were encouraged to run the simulation using their pre-determined plan of action during the first round of performance.

Then, between the planning phase and actual simulation, half of the teams received the leadership change manipulation (between Days 2 and Day 3 of the simulation; see below). In the class immediately following the change in leadership, the team performed the simulation for the first time (Round 1) based on their initial plan, and then had the opportunity to run the simulation a second time (Round 2; during which escalation of commitment and error reduction were measured).

Leadership change manipulation

Once each team completed the planning stage (at the end of Day 2), but before actually engaging in implementing task decisions, half of the teams received the leadership change manipulation, by rotating the leaders across the teams. Specifically, the leader of Team 1 became the new leader for Team 2 and the leader for Team 2 transitioned to be the leader for Team 3, etc. Thus, half of the teams proceeded through the rest of the simulation with a newly assigned leader (i.e. teams with leadership change), whereas the rest of the teams continued the simulation with the originally assigned leader (i.e. teams with ongoing leadership).

The data was collected during two separate semesters. The control condition was run during one semester and the experimental condition was run during a second semester (three sections per condition). Our design allowed us to maintain consistency across sections and prevent students from learning about the manipulation from their peers across conditions.

Measures

Team initial plan commitment

An overall effectiveness score was calculated by the computer for each team at the end of the simulation, reflecting team performance during each round (870 was the highest score achieved out of 1000 possible points). The score was calculated based on the proper application of the change model presented with the simulation and taught in class, and the number of tactics required to complete it, with the most efficient use of tactics receiving higher scores. As team members implemented their initial plan, after each action they received positive or negative feedback from the simulation for their choice. At various points, superior options to the original plan would be available if the team was willing to deviate in its course of action by breaking their commitment to the initial plan. Because teams in both conditions prepared for the simulation and developed plans in exactly the same ways, without any external feedback, any differences in performance reflect their willingness to make adjustments to their original plan in response to performance feedback from their choices during the simulation.

Therefore, we assessed the teams' commitment to their initial plan through their lack of dynamic adaptation to feedback and new information as the simulation progressed by reverse coding it (i.e., 870 minus their score). The recoding reflected the negative relationship between blindly following an outdated plan and adapting to feedback and new information during the course of the round. Thus, higher scores indicate *greater* commitment to their plan, and a lack of adaptation.

Escalation of commitment

Escalation of commitment during the second round was measured by the level of increased resource investment by the team in terms of spending additional time and money to implement further tactics in response to their performance in the first simulation run. Teams that chose to simply add tactics to improve their score, rather than to replace poor tactics with better ones, demonstrated escalation of commitment to their original course of action. Therefore, we calculated the number of additional tactics each team added between Round 1 and Round 2 as the degree to which they escalated their commitment to their initial plan.

Error reduction

In contrast to investing further resources in an attempt to make a plan of action successful, an alternative strategy is to improve performance by removing counterproductive tactics from the plan. We measured error reduction behavior from Round 1 to Round 2 of the simulation by the overall percentage improvement in counterproductive behaviors. According to the simulation, there were 9 tactics that were designed to be counterproductive (i.e., were a poor fit in terms of the change plan and thus represented a "waste" of resources). Teams that reduced their number of such tactics, therefore, after receiving feedback from their first simulation run reduced their errors from their initial planning and execution. Because the number of such initial errors varied from team to team based on how many counterproductive tactics they initially employed, we used the percentage reduction in errors rather than the actual number.

Study 2 results

Means, standard deviations, and intercorrelations among the variables are included in Table 4.

In Hypothesis 2, we proposed that leadership change would reduce the team's commitment to its original plan. An ANOVA contrast test was calculated on team initial plan commitment in Round 1. Teams that experienced leadership change altered their course of action based on feedback and new information and demonstrated lower plan commitment ($M = 388.00$; $SD = 276.67$), compared to teams with ongoing

leadership that remained consistent to their initial plan ($M = 636.12$; $SD = 246.23$; $t(48) = 3.35$, $p < 0.01$). As shown in Table 5, a regression analysis similarly showed that leadership change significantly reduced team initial plan commitment (the reversed performance score) even after controlling for team size and gender composition of the team (unstandardized coefficient = -253.01 , $p < 0.01$). Similar to the results of Study 1, these findings provide further support for Hypothesis 2.

For Hypotheses 3 and 4, we proposed that the relationship between leadership change and escalation of commitment and error reduction were both mediated by teams' commitment to their initial plan. To test both hypotheses, we used a bootstrapping based procedure suggested by Edwards and Lambert (2007) and other researchers (Preacher & Hayes, 2008; Shrout & Bolger, 2002) in testing our mediation model. The indirect path through team initial plan commitment was significantly related to both escalation of commitment (unstandardized coefficient = -3.510 , 95% confidence interval [CI] $[-5.825, -1.194]$) and error reduction (unstandardized coefficient = 0.296 , 95% confidence interval [CI] $[0.037, 0.555]$). These results demonstrate that teams that experience leadership change were less likely to escalate commitment and were more likely to correct errors, providing support for Hypothesis 3 and Hypothesis 4, respectively.

A common problem in testing mediated models is that most analytical techniques assume that the error terms in the equations that are used to predict the mediator and outcome variables are unrelated. However, these error terms are often related due to the omission of common causes of both variables, resulting in an inconsistent estimate of the relationship between the mediator and outcome variable (Antonakis, Bendahan, Jacquart, & Lalive, 2010). This problem can be avoided by using two-stage least squares (2SLS) regression. Using 2SLS, a consistent estimate of the relationship between the mediator and outcome variables can be derived by first identifying instrumental variables (Antonakis et al., 2010). The relationship between the instrumental variables and the mediator variable is first estimated, providing predicted values of the mediator. These predicted values of the mediator are then used to determine an estimate of the relationship between the mediator and outcome variables.

First, we tested whether our mediator is endogenous with our dependent variables by estimating the Hausman test (Hausman, 1978). To do so we compared our estimates from the OLS regression to those from a 2SLS regression using the leadership change manipulation as the instrument. Leadership change is theoretically an appropriate instrumental variable because it is exogenous and theoretically associated with the mediator variable, team initial plan commitment (Antonakis et al., 2010). For escalation of commitment, the Hausman test statistic revealed that the chi-square (0.09) was non-significant, suggesting a lack of endogeneity. The results of both OLS and 2SLS analysis for escalation of commitment is reported in Table 5.

For error reduction, the Hausman test statistic comparing the estimates from the OLS and the 2SLS analyses revealed that the chi-square (0.52) was non-significant, also suggesting a lack of endogeneity. Nonetheless, for error reduction, the partial correlation between the instrument and the included endogenous variable is low, indicating a weak instrument problem. The observed minimum eigenvalue statistic of 6.63 is between the critical values of 6.66 and 5.53 and indicates a 2SLS relative bias of $> 20\%$ and $< 25\%$. However, several studies have shown that weak instruments may lead not only to larger standard errors but may, in fact, lead to estimates that have larger bias than OLS (Hahn & Hausman, 2002; Staiger & Stock, 1997). The results of both OLS and 2SLS analysis for error reduction is reported in Table 6.

Taken together, these results demonstrate that teams that experience leadership change were less likely to escalate commitment and were more likely to correct errors, providing support for Hypothesis 3 and Hypothesis 4, respectively. Overall, the results of this study supported the proposed mediated model (Fig. 1). Teams that experienced leadership change were less likely to remain committed to their initial plans. As a consequence of avoiding that initial commitment, the teams

Table 4
Means, standard deviations, and intercorrelations among variables of interest: Study 2.

	Variable	Mean	SD	1	2	3	4	5	6
1	Leadership change	0.50	0.51	–					
2	Team initial plan commitment ^a (time 1)	512.06	287.91	–0.44**	–				
3	Escalation of commitment (time 2)	6.12	5.98	–0.33*	0.62**	–			
4	Error reduction (time 2)	0.41	0.72	0.28	–0.58**	–0.43**	–		
5	Team size	5.10	0.86	–0.07	–0.16	0.05	0.24	–	
6	% males	0.61	0.26	0.04	–0.14	0.08	0.03	0.04	–

Note. N = 50 teams; leadership condition: leadership change = 1; ongoing leadership = 0.

^a Indicates reverse coded variable.

* $p < 0.05$.

** $p < 0.01$.

were less likely to further escalate their investment and instead more likely to focus on error reduction activities in the next performance episode.

Discussion

As team members work together over time, they tend to rely on planned interactions that might save time and reduce uncertainty. However, habitual reliance on plans and routines tends to persist even if an alternative response is needed (Gardner, Gino, & Staats, 2012; Gersick & Hackman, 1990). By not recognizing the need for change, the team fails to adapt, thus harming long-term team performance. Given the critical role that leaders play in team decision-making (Morgeson, 2005), we argue that a change in leadership – a disruptive event – can help the team to adapt to the changing environment. We found evidence that a new leader promoted reflection behaviors within the team and reduced commitment to outdated plans. Therefore, teams that experienced leadership change avoided escalation of commitment over time. Further, such teams were better able to respond to feedback, to identify and correct errors in their updated plan and make course corrections by focusing on error reduction. In contrast, teams with ongoing leaders were more likely to remain committed to their initial plans, which then lead to greater escalation behavior and less of a focus on error reduction in the next performance episode.

Theoretical implications

First, our work contributes to research on team escalation of commitment by extending the literature to include the critical role of leadership and leadership change. These findings support our argument that new leaders are less committed to the previously established plans and are more likely to reevaluate the situation more objectively, thus

directly affecting team performance. Although some prior research has considered change processes in teams (Rink, Kane, Ellemers, & Van der Vegt, 2013), most of the work had focused on either changes in team membership or the influences of member loss on team performance. Other work has examined specific leader behaviors such as leader briefings (Marks et al., 2001; Serfaty, Entin, & Volpe, 1993) or sense-making activities (Morgeson, 2005) in the role of team adaptation and performance. Extending prior work, we demonstrate that simply a change in leadership can facilitate the conditions required to increase the team's propensity to perform when a situation requires adaptation.

We also extend leadership theories by explicating the key behaviors that result from new leaders' impetus to engage in active situational diagnosis to gain a clear understanding of their new responsibilities (Kozlowski et al., 1996; Morgeson et al., 2010). Specifically, leadership change drives leader reflection behaviors, which triggers internal processes among the team members that lead to questioning current plans and developing new approaches to future decisions. A key contribution of our research involved findings that leadership change influences teams' commitment to their initial plans by disrupting existing patterns of interaction, "breaking" the team from escalation practices, consequently reducing escalation tendencies among team members. Thus, leadership change indirectly facilitates team adaptation.

Second, we integrate escalation and adaptation by uncovering the important role that leaders play in stimulating reflection behavior and adaptive team performance over time. As proposed in Kozlowski et al.'s (1996) dynamic theory of team leadership, by facilitating the development of shared understanding of the changing environment, the leader helps the team to ascribe meaning to the situation and thus engage in adaptive team behavior. Although research has shown that these processes lead to the emergence of shared mental models and team situational awareness (Burke et al., 2006), we demonstrate that it also contributes to the reduction of escalation bias among team

Table 5
Unstandardized regression results for escalation of commitment: Study 2.

Variables	OLS regression		Two-stage least squares (2SLS) regression			
			1st stage		2nd Stage	
	Team initial plan commitment	Escalation of commitment	Team initial plan commitment	Escalation of commitment	Team Initial plan commitment	Escalation of commitment
Team size	–60.88	1.01	–60.88	0.15	–60.88	1.08
% males	–126.01	3.76	–126.01	2.04	–126.01	3.96
Leadership change	–253.01**		–253.01**	–3.86*	–253.01**	
Team initial plan commitment		0.01**				0.01**
R ²	0.24	0.44	0.24	0.11	0.24	0.43
F-statistic	F(3,46) = 4.79**	F(3,46) = 11.88**	F(3,46) = 4.79**	F(3,46) = 1.98	F(3,46) = 4.79**	F(3,46) = 3.08*

Note. N = 50 teams; leadership condition: leadership change = 1; ongoing leadership = 0.

The magnitude of the unstandardized coefficient for team initial plan commitment reflects the large scale of the variable measure.

* $p < 0.05$.

** $p < 0.01$.

Table 6
Unstandardized regression results for error reduction: Study 2.

Variables	OLS regression		Two-stage least squares (2SLS) regression			
			1st stage		2nd stage	
	Team initial plan commitment	Error reduction	Team initial plan commitment	Error reduction	Team initial plan commitment	Error reduction
Team size	-53.39	0.12	-53.39	0.21	-53.39	0.09
% males	-223.97	-0.35	-223.97	-0.03	-223.97	-0.53
Leadership change	-190.14*		-190.14*	0.42*	-190.14*	
Team initial plan commitment		-0.00**				-0.00*
R ²	0.21	0.37	0.21	0.14	0.21	0.32
F-statistic	F(3,42) = 3.83*	F(3,42) = 8.27**	F(3,42) = 3.83*	F(3, 42) = 2.35	F(3, 42) = 3.83*	F(3, 42) = 2.94*

Note. N = 46 teams (4 teams are excluded implemented no errors in Round 1); leadership condition: leadership change = 1; ongoing leadership = 0. The magnitude of the unstandardized coefficient for team initial plan commitment reflects the large scale of the variable measure.

* $p < 0.05$.

** $p < 0.01$.

members. Moreover, in these studies we establish that teams that experienced leadership change mitigate their resource investment behaviors over time by reducing their commitment to their initial plans. Although these teams choose not to invest in the previously established routines, they simultaneously engage in reevaluation of their current strategies. This type of behavior results in improved decision-making and further adaptation, such that the likelihood of committing to bad decisions is reduced.

Further, past work on leadership and team adaptation has focused on the role of *external* leaders and their behaviors in triggering adaptive team responses through briefings, coaching, sensemaking, and accelerated cognitive processing (Edmondson, Bohmer, & Pisano, 2001; Morgeson, 2005). According to Morgeson and his colleagues (Morgeson, 2005; Morgeson et al., 2010), these external leaders, whether they are occupying formal or informal role, represent leaders who are *not* members of the team (i.e., do not perform any of the team's day-to-day tasks). Such leaders are often called coaches, advisors, team mentors or executive coordinators (Zaccaro, Heinen, & Shuffler, 2009). We take an important step in considering the role of leaders *internal* to the team. These internal leaders are active, contributing members of the team and thus have a strong stake in the team's decision-making, perhaps even stronger than external leaders (Morgeson et al., 2010).

Finally, we address how leadership change can allow teams to focus on error reduction and performance improvement in future performance episodes. The new leader not only offers an unbiased perspective that helps the team to realize how to improve their work in subsequent performance episodes, but also facilitates in error reduction by making sense of feedback. To date, most research on leadership change focused on the disruption it causes to team interactions and effectiveness (Day, Gronn, & Salas, 2004). However, our contribution to the literature focuses on the changing patterns of interaction that teams undergo due to leadership change. By examining team escalation across two different studies, our research sheds some light on how teams adapt to changing circumstances and the leader's role in facilitating these processes.

Practical implications

Our research offers important practical implications for organizations. Our findings suggest that teams undergo changing patterns of interaction when responding and adapting to disruptive events, such as leadership change. Ensuring that employees are aware that leadership change can result in reevaluation of current practices can benefit the team decision making processes. It may also increase the chances that employees recognize the value of such transition, and encourage team

members to be more receptive to new ideas and thus make the transition smoother.

In addition, organizations can anticipate the effects of leadership change on team dynamics and thus try to foster an environment that can help teams to capitalize on the benefits of leadership change. During the transition time, the organization might promote reflexivity training that can further encourage both leaders and team members to understand the importance of reflecting on past experiences (Hirst, Mann, Bain, Pirola-Merlo, & Richver, 2004). For example, leaders and teams can be trained in situation assessment, and to question whether objectives and methods are still appropriate and whether alternative courses of action may be viable, especially following environmental or other changes (Gurtner, Tschan, Semmer, & Nägele, 2007; Konradt et al., 2016). By finding ways to incorporate reflection into their regular activities, employees can better understand their actions and carefully diagnose the gap between what actually happened with what should or could have happened. Similarly, leaders can better see the benefits of prompting reflective behavior in their subordinate teams. Similar reflective practice has already been incorporated into the professional development of a range of health disciplines and social care professions (Leung, Pluye, Grad, & Weston, 2010; Morgan, 2009). Furthermore, training interventions have been found to be important for developing adaptive performance in teams (Chen, Thomas, & Wallace, 2005). These interventions will thus pave the way to increase an organization's control over the outcomes of leadership change.

Furthermore, demonstrating that a new leader can actively influence the team performance shortly after taking over an existing team, may help management better plan leadership transitions. Specifically, the leader's ability to decrease team initial plan commitment and thus reduce the tendency for escalation might be a critical determinant in deciding which teams may most benefit from a leadership change. New leaders may not make a meaningful difference for teams that struggle with efficiency or coordination issues, but might be very helpful for teams that tend to become stuck in a failing course of action that are facing critical investment decisions.

Limitations and future directions

These studies have several limitations which should be noted and might guide future research. First, given that these findings were obtained from undergraduate students performing simulated tasks, external validity may be a concern. Specifically, the participants did not face real consequences for their decisions, compared to project teams in the field. Therefore, it is not clear to what extent these findings will

generalize beyond these settings. We encourage researchers to test our theoretical propositions in other contexts, and examine whether these findings are relevant to field settings where team leaders must adapt to changing work demands and may have a harder time mitigating escalation tendencies of individual team members.

Nonetheless, although existing literature on team leadership relies on subjective measures of team processes and performance, these studies use objective measures which helps avoid many of the methodological problems associated with self-report data and enabled us to empirically link team behaviors with overall team performance. Additionally, the simulations provided a platform for teams to make strategic decisions and receive feedback on the consequences of their decisions. Therefore, the tasks used in these studies contained relatively high levels of psychological realism, which is an especially important design consideration for laboratory research (Berkowitz & Donnerstein, 1982; Marks, 2000).

Second, we focused on project teams, which have moderate authority and skill differentiation and relatively short temporal stability. Researchers have argued that examining teams in terms of underlying dimensions rather than team categories is most helpful for understanding generalization (Hollenbeck et al., 2012). Therefore, we believe that our results are likely to best apply to other team contexts with these characteristics, along with high levels of interdependence and internal leadership. Furthermore, as suggested by Morgeson et al. (2010), the role of team leadership may change depending on the unique needs of the team. Therefore, it is possible that teams with different needs and different types of team leader roles will exhibit different patterns concerning the effects of the leadership variables we examined, motivating others to examine more complex types of leadership processes in teams. Such research may also identify important moderators of effects examined in these studies. For example, future research can investigate the effects of leader specific traits or style, or examine other type of behaviors new leaders engage in that help the team to be particularly adaptive, given that these might provide an alternative explanation for the observed relationships.

Third, although our research focuses on leadership change and its effect on team level outcomes, it is possible that change in team membership can also trigger similar behaviors among the remaining team members. However, these effects are likely to be weaker due to the important role leaders play in teams (Morgeson et al., 2010; Zaccaro et al., 2001). Unlike team members (with the exception of self-managed teams), leaders often have the ultimate authority to make a decision, and shoulder the majority of the responsibility should a team perform poorly (Kozlowski et al., 1996). Thus, a team should be particularly susceptible to suggestions and information from a new leader. However, it is also possible that many of the benefits of leadership change in preventing escalation may come from gaining “the outside view” by having any respected external person raise questions about current plans (Lovallo, Clarke, & Camerer, 2012). Future research should further examine these propositions and focus on illuminating the difference between change in leadership and change in membership and its effect on team behavior and outcomes.

The potential benefits of leadership change must also be viewed with a clear understanding of their boundaries. New leaders may help the team prevent plan commitment and irrational further investment in the initial decision, but that does not guarantee a better outcome for the team. Avoiding one mistake does not prevent another, and there is nothing inherently better about a new leader than an existing one. Furthermore, while we demonstrate that the new leader engages in certain behavior that help the team correct their course of action, our current investigation does not allow us to test the specific drivers behind these behaviors. New leaders might be more likely to question the fundamentals of the previous course of action not because they disagree with it, but out of a desire to assert their leadership capabilities (Antonakis et al., 2016; Spence, 2002). This remains an important question for future research to address by explicitly investigating the

underlying intentions behind leaders' behaviors, possibly by collecting data concerning new versus ongoing leader assertive behavior based on team member perceptions and through ratings of assertiveness coded from video recordings.

In addition, there is no reason to believe that leader change will be beneficial in general. In fact, a random leadership change might be harmful to the team, given the benefits teams and leaders develop through performance routines (Gersick & Hackman, 1990). Therefore, although a leadership change may provide specific benefits in terms of escalation of commitment, it is important to keep in mind that this benefit holds only for a specific problem, and there may be offsetting costs.

Lastly, we did not directly test many other relevant boundary conditions of the effects of leadership change on team outcomes, such as team member characteristics, team performance expectations, or situational factors behind leadership change. There are a number of team and member characteristics that may enhance or impair the benefits of leadership change on team escalation of commitment. For example, a team with a strong learning orientation (Bunderson & Sutcliffe, 2003), or norms of reflexivity (Schippers et al., 2014) may be much more likely to engage in reflection and avoid escalation without the need for leader change. Similarly, leadership approaches and leader characteristics may also affect the degree to which new leaders are influential in the team. For example, general intelligence, openness to experience and leader's task-relevant expertise may further strengthen our effects (Antonakis & House, 2014; Morgeson et al., 2010). Further, the relative reputation and skill level of the team and/or leader may interact to influence the relative benefit of installing a new leader. Given the large number of potentially important factors in the leadership change process, it is difficult to test all of the boundary conditions in one study.

However, it would be a promising direction for future research to further explore under what conditions leadership change is more likely to be effective. With the increasing number of self-managing work teams (Douglas, Martin, & Krapels, 2006), future work may also shed light on certain behaviors that can be implemented by “informal” groups in leaderless settings to help teams move away from unproductive plans. It would also be valuable to examine the benefits of promoting new leaders from within teams, rather than bringing in external leaders. Although some work has examined the effects of leader loss on team decision making (e.g., DeRue et al., 2008), work on promotion within teams has been limited and raises further questions. For example, Sauer (2011) found that the status of the newly promoted leader was a critical moderator of their success, since low-status leaders were viewed as more effective when directive, and a high-status leaders viewed as more effective when participative. The confluence of leadership style and leader status may be particularly salient to research seeking to understand the benefits of leadership change in reducing team escalation of commitment.

References

- Ahearne, M., Mathieu, J., & Rapp, A. (2005). To empower or not to empower your sales force? An empirical examination of the influence of leadership empowerment behavior on customer satisfaction and performance. *Journal of Applied Psychology*, 90(5), 945–955.
- Antonakis, J., Bastardoz, N., Jacquart, P., & Shamir, B. (2016). Charisma: An ill-defined and ill-measured gift. *Annual Review of Organizational Psychology and Organizational Behavior*, 3, 293–319.
- Antonakis, J., Bendahan, S., Jacquart, P., & Lalive, R. (2010). On making causal claims: A review and recommendations. *The Leadership Quarterly*, 21(6), 1086–1120.
- Antonakis, J., & House, R. J. (2014). Instrumental leadership: Measurement and extension of transformational-transactional leadership theory. *The Leadership Quarterly*, 25(4), 746–771.
- Argote, L. (1999). *Organizational learning: Creating, retaining, and transferring knowledge*. Kluwer Academic Publishers.
- Aronson, E. (1968). Dissonance theory: Progress and problems. In R. P. Abelson, E. Aronson, W. J. McGuire, T. M. Newcomb, M. J. Rosenberg, & P. H. Tannenbaum (Eds.), *Theories of cognitive consistency: A sourcebook* (pp. 5–27). Chicago, IL: Rand McNally.
- Bazerman, M. H., Giuliano, T., & Appelman, A. (1984). Escalation of commitment in

- individual and group decision making. *Organizational Behavior and Human Performance*, 33(2), 141–152.
- Becker, M. C. (2004). Organizational routines: A review of the literature. *Industrial and Corporate Change*, 13(4), 643–678.
- Berkowitz, L., & Donnerstein, E. (1982). External validity is more than skin deep: Some answers to criticisms of laboratory experiments. *American Psychologist*, 37(3), 245–257.
- Bowen, M. G. (1987). The escalation phenomenon reconsidered: Decision dilemmas or decision errors? *Academy of Management Review*, 12(1), 52–66.
- Bragger, J. D., Hantula, D. A., Bragger, D., Kirman, J., & Kutcher, E. (2003). When success breeds failure: History, hysteresis, and delayed exit decisions. *Journal of Applied Psychology*, 88(1), 6–14.
- Brockner, J. (1992). The escalation of commitment to a failing course of action: Toward theoretical progress. *Academy of Management Review*, 17(1), 39–61.
- Brockner, J., Houser, R., Birnbaum, G., Lloyd, K., Deitcher, J., Nathanson, S., & Rubin, J. Z. (1986). Escalation of commitment to an ineffective course of action: The effect of feedback having negative implications for self-identity. *Administrative Science Quarterly*, 109–126.
- Bunderson, J. S., & Sutcliffe, K. M. (2003). Management team learning orientation and business unit performance. *Journal of Applied Psychology*, 88(3), 552.
- Burke, C. S., Stagl, K. C., Salas, E., Pierce, L., & Kendall, D. (2006). Understanding team adaptation: A conceptual analysis and model. *Journal of Applied Psychology*, 91(6), 1189–1207.
- Chen, G., Thomas, B., & Wallace, J. C. (2005). A multilevel examination of the relationships among training outcomes, mediating regulatory processes, and adaptive performance. *Journal of Applied Psychology*, 90(5), 827–841.
- Chesney, A. A., & Locke, E. A. (1991). Relationships among goal difficulty, business strategies, and performance on a complex management simulation task. *Academy of Management Journal*, 34(2), 400–424.
- Christian, J. S., Christian, M. S., Pearsall, M. J., & Long, E. C. (2017). Team adaptation in context: An integrated conceptual model and meta-analytic review. *Organizational Behavior and Human Decision Processes*, 140, 62–89.
- Christian, J. S., Pearsall, M. J., Christian, M. S., & Ellis, A. P. (2014). Exploring the benefits and boundaries of transactive memory systems in adapting to team member loss. *Group Dynamics: Theory, Research, and Practice*, 18(1), 69–86.
- Cialdini, R. B. (1993). *Influence: Science and practice*. New York, NY: Harper Collins College.
- Cohen, S. G., & Ledford, G. E. (1994). The effectiveness of self-managing teams: A quasi-experiment. *Human Relations*, 47(1), 13–43.
- Côté, S. (2010). Taking the “intelligence” in emotional intelligence seriously. *Industrial and Organizational Psychology*, 3(2), 127–130.
- Cummings, T., & Worley, C. (2015). *Organization development and change*. Stamford, CT: Cengage Learning.
- Day, D. V., Gronn, P., & Salas, E. (2004). Leadership capacity in teams. *The Leadership Quarterly*, 15(6), 857–880.
- DeRue, D. S., Hollenbeck, J. R., Johnson, M. D., Ilgen, D. R., & Jundt, D. K. (2008). How different team downsizing approaches influence team-level adaptation and performance. *Academy of Management Journal*, 51(1), 182–196.
- Douglas, C., Martin, J. S., & Krapel, R. H. (2006). Communication in the transition to self-directed work teams. *Journal of Business Communication*, 43(4), 295–321.
- Edmondson, A. C., Bohmer, R. M., & Pisano, G. P. (2001). Disrupted routines: Team learning and new technology implementation in hospitals. *Administrative Science Quarterly*, 46(4), 685–716.
- Edwards, J. R., & Lambert, L. S. (2007). Methods for integrating moderation and mediation: A general analytic framework using moderated path analysis. *Psychological Methods*, 12(1), 1–22.
- ExperienceChange (2013). *GlobalTech player's guide*. Menlo Park, CA: ExperiencePoint.
- Fook, J., & Gardner, F. (2007). *Practising critical reflection: A resource handbook: A handbook*. McGraw-Hill Education (UK).
- Gardner, H. K., Gino, F., & Staats, B. R. (2012). Dynamically integrating knowledge in teams: Transforming resources into performance. *Academy of Management Journal*, 55(4), 998–1022.
- Gersick, C. J., & Hackman, J. R. (1990). Habitual routines in task-performing groups. *Organizational Behavior and Human Decision Processes*, 47(1), 65–97.
- Gibson, C., & Vermeulen, F. (2003). A healthy divide: Subgroups as a stimulus for team learning behavior. *Administrative Science Quarterly*, 48(2), 202–239.
- van Ginkel, W. P., & van Knippenberg, D. (2009). Knowledge about the distribution of information and group decision making: When and why does it work? *Organizational Behavior and Human Decision Processes*, 108(2), 218–229.
- Gurtner, A., Tschan, F., Semmer, N. K., & Nägele, C. (2007). Getting groups to develop good strategies: Effects of reflexivity interventions on team process, team performance, and shared mental models. *Organizational Behavior and Human Decision Processes*, 102(2), 127–142.
- Hahn, J., & Hausman, J. (2002). A new specification test for the validity of instrumental variables. *Econometrica*, 70(1), 163–189.
- Hambrick, D. C., & Fukutomi, G. D. (1991). The seasons of a CEO's tenure. *Academy of Management Review*, 16(4), 719–742.
- Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica: Journal of the Econometric Society*, 1251–1271.
- Hirst, G., Mann, L., Bain, P., Pirola-Merlo, A., & Richver, A. (2004). Learning to lead: The development and testing of a model of leadership learning. *The Leadership Quarterly*, 15(3), 311–327.
- Hollenbeck, J. R., Beersma, B., & Schouten, M. E. (2012). Beyond team types and taxonomies: A dimensional scaling conceptualization for team description. *Academy of Management Review*, 37(1), 82–106.
- Hunt, M. (1995). *Lessons learned from high-performing organizations in the federal government*. DIANE Publishing Company.
- Johnson, M. D., Hollenbeck, J. R., DeRue, D. S., Barnes, C. M., & Jundt, D. (2013). Functional versus dysfunctional team change: Problem diagnosis and structural feedback for self-managed teams. *Organizational Behavior and Human Decision Processes*, 122(1), 1–11.
- Jonas, E., Schulz-Hardt, S., Frey, D., & Thelen, N. (2001). Confirmation bias in sequential information search after preliminary decisions: An expansion of dissonance theoretical research on selective exposure to information. *Journal of Personality and Social Psychology*, 80(4), 557–571.
- Kahneman, D., Lovallo, D., & Sibony, O. (2011). Before you make that big decision. *Harvard Business Review*, 89(6), 50–60.
- Kasl, E., Marsick, V. J., & Dechant, K. (1997). Teams as learners a research-based model of team learning. *The Journal of Applied Behavioral Science*, 33(2), 227–246.
- Keil, M., & Robey, D. (2001). Blowing the whistle on troubled software projects. *Communications of the ACM*, 44(4), 87–93.
- Keil, M., Tan, B. C., Wei, K.-K., Saarinen, T., Tuunainen, V., & Wassenaar, A. (2000). A cross-cultural study on escalation of commitment behavior in software projects. *MIS Quarterly*, 24(2), 299–325.
- Kelly, T. F., & Milkman, K. L. (2013). Escalation of commitment. In E. H. Kessler (Ed.). *Encyclopedia of management theory*. Thousand Oaks, CA: Sage Publications, Inc.
- Kent, R. L., & Moss, S. E. (1994). Effects of sex and gender role on leader emergence. *Academy of Management Journal*, 37(5), 1335–1346.
- Kirkman, B. L., & Rosen, B. (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal*, 42(1), 58–74.
- Konradt, U., Otte, K.-P., Schippers, M. C., & Steenfatt, C. (2016). Reflexivity in teams: A review and new perspectives. *The Journal of Psychology*, 150(2), 153–174.
- Kozlowski, S. W., & Bell, B. S. (2003). Work groups and teams in organizations. In W. C. Borman, & D. R. Ilgen (Vol. Eds.), *Handbook of psychology: Industrial and organizational psychology*. Vol. 12. *Handbook of psychology: Industrial and organizational psychology* (pp. 333–375). New York: Wiley.
- Kozlowski, S. W., Gully, S., McHugh, P., Salas, E., & Cannon-Bowers, J. (1996). A dynamic theory of leadership and team effectiveness: Developmental and task contingent leader roles. *Research in Personnel and Human Resources Management*, 14, 253–306.
- Kozlowski, S. W., Gully, S. M., Nason, E. R., & Smith, E. M. (1999). Developing adaptive teams: A theory of compilation and performance across levels and time. In D. R. Ilgen, & E. D. Pulakos (Eds.), *The changing nature of work performance: Implications for staffing, personnel actions, and development* (pp. 240–292). San Francisco: Jossey-Bass.
- Leach, D. J., Wall, T. D., & Jackson, P. R. (2003). The effect of empowerment on job knowledge: An empirical test involving operators of complex technology. *Journal of Occupational and Organizational Psychology*, 76(1), 27–52.
- Leung, K. H., Pluye, P., Grad, R., & Weston, C. (2010). A reflective learning framework to evaluate CME effects on practice reflection. *Journal of Continuing Education in the Health Professions*, 30(2), 78–88.
- Levine, J. M., Choi, H.-S., & Moreland, R. L. (2003). Newcomer innovation in work teams. In P. Paulus, & B. Nijstad (Eds.), *Group creativity: Innovation through collaboration* (pp. 202–224). New York: Oxford University Press.
- Levine, J. M., & Moreland, R. L. (1999). Knowledge transmission in work groups: Helping newcomers to succeed. In L. L. Thompson, J. M. Levine, & D. M. Messick (Eds.), *Shared cognition in organizations: The management of knowledge* (pp. 267–296). Mahwah, NJ: Erlbaum.
- Lewis, K., Belliveau, M., Herndon, B., & Keller, J. (2007). Group cognition, membership change, and performance: Investigating the benefits and detriments of collective knowledge. *Organizational Behavior and Human Decision Processes*, 103(2), 159–178.
- Locke, E. A., & Latham, G. P. (1990). Work motivation and satisfaction: Light at the end of the tunnel. *Psychological Science*, 1(4), 240–246.
- Lovallo, D., Clarke, C., & Camerer, C. (2012). Robust analogizing and the outside view: Two empirical tests of case-based decision making. *Strategic Management Journal*, 33(5), 496–512.
- Manderscheid, S. V., & Ardichvili, A. (2008). New leader assimilation: Process and outcomes. *Leadership & Organization Development Journal*, 29(8), 661–677.
- Marks, M. A. (2000). A critical analysis of computer simulations for conducting team research. *Small Group Research*, 31(6), 653–675.
- Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and taxonomy of team processes. *Academy of Management Review*, 26(3), 356–376.
- Mathieu, J. E., Gilson, L. L., & Ruddy, T. M. (2006). Empowerment and team effectiveness: An empirical test of an integrated model. *Journal of Applied Psychology*, 91(1), 97–108.
- McGrath, J. E. (1962). The influence of positive interpersonal relations on adjustment and effectiveness in rifle teams. *The Journal of Abnormal and Social Psychology*, 65(6), 365–375.
- Mehra, A., Smith, B. R., Dixon, A. L., & Robertson, B. (2006). Distributed leadership in teams: The network of leadership perceptions and team performance. *The Leadership Quarterly*, 17(3), 232–245.
- Moreland, R. L., & Levine, J. M. (1982). Socialization in small groups: Temporal changes in individual-group relations. *Advances in Experimental Social Psychology*, 15, 137–192.
- Moreland, R. L., & Levine, J. M. (1989). Newcomers and oldtimers in small groups. In P. B. Paulus (Vol. Ed.), *Psychology of group influence* (2nd ed.). Vol. 12. *Psychology of group influence* (pp. 143–186). Hillsdale, NJ: Erlbaum.
- Morgan, G. (2009). Reflective practice and self-awareness. *Perspectives in Public Health*, 129(4), 161.
- Morgeson, F. P. (2005). The external leadership of self-managing teams: Intervening in the context of novel and disruptive events. *Journal of Applied Psychology*, 90(3), 497–508.
- Morgeson, F. P., DeRue, D. S., & Karam, E. P. (2010). Leadership in teams: A functional approach to understanding leadership structures and processes. *Journal of*

- Management, 36, 5–39.
- van Offenbeek, M. (2001). Processes and outcomes of team learning. *European Journal of Work and Organizational Psychology*, 10(3), 303–317.
- O'Hara, C. (2014). What new team leaders should do first. Retrieved from Harvard Business Review <https://hbr.org/2014/09/what-new-team-leaders-should-do-first>.
- Porter, C. O., Hollenbeck, J. R., Ilgen, D. R., Ellis, A. P., West, B. J., & Moon, H. (2003). Backing up behaviors in teams: The role of personality and legitimacy of need. *Journal of Applied Psychology*, 88(3), 391–403.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavioral Research Methods*, 40, 879–891.
- Randall, K. R., Resick, C. J., & DeChurch, L. A. (2011). Building team adaptive capacity: The roles of sensegiving and team composition. *Journal of Applied Psychology*, 96(3), 525–540.
- Rao, R. D., & Argote, L. (2006). Organizational learning and forgetting: The effects of turnover and structure. *European Management Review*, 3(2), 77–85.
- Rico, R., Sánchez-Manzanares, M., Gil, F., & Gibson, C. (2008). Team implicit coordination processes: A team knowledge-based approach. *Academy of Management Review*, 33(1), 163–184.
- Rink, F., Kane, A. A., Ellemers, N., & Van der Vegt, G. (2013). Team receptivity to newcomers: Five decades of evidence and future research themes. *The Academy of Management Annals*, 7(1), 247–293.
- Roberto, M. A. (2016). *New Venture Exercise: The Food Truck Challenge*. Boston MA: Harvard Business School Publication.
- Rosen, M. A., Bedwell, W. L., Wildman, J. L., Fritzsche, B. A., Salas, E., & Burke, C. S. (2011). Managing adaptive performance in teams: Guiding principles and behavioral markers for measurement. *Human Resource Management Review*, 21(2), 107–122.
- Sauer, S. J. (2011). Taking the reins: The effects of new leader status and leadership style on team performance. *Journal of Applied Psychology*, 96(3), 574.
- Schippers, M. (2003). *Reflexivity in teams*. Dissertation Amsterdam: Vrije Universiteit.
- Schippers, Den Hartog, D., Koopman, P., & van Knippenberg, D. (2008). The role of transformational leadership in enhancing team reflexivity. *Human Relations*, 61(11), 1593–1616.
- Schippers, M., Den Hartog, D., Koopman, & Wienk (2003). Diversity and team outcomes: The moderating effects of outcome interdependence and group longevity and the mediating effect of reflexivity. *Journal of Organizational Behavior*, 24(6), 779–802.
- Schippers, M., Edmondson, A. C., & West, M. A. (2014). Team reflexivity as an antidote to team information-processing failures. *Small Group Research*, 45(6), 731–769.
- Schippers, M., Homan, & Knippenberg, D. (2013). To reflect or not to reflect: Prior team performance as a boundary condition of the effects of reflexivity on learning and final team performance. *Journal of Organizational Behavior*, 34(1), 6–23.
- Schippers, M., West, & Dawson (2015). Team reflexivity and innovation: The moderating role of team context. *Journal of Management*, 41(3), 769–788.
- Schulz-Hardt, S., Thurow-Kröning, B., & Frey, D. (2009). Preference-based escalation: A new interpretation for the responsibility effect in escalating commitment and entrapment. *Organizational Behavior and Human Decision Processes*, 108(2), 175–186.
- Serfaty, D., Entin, E. E., & Volpe, C. (1993). Adaptation to stress in team decision-making and coordination. *Paper presented at the proceedings of the Human Factors and Ergonomics Society annual meeting*.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and non-experimental studies: New procedures and recommendations. *Psychological Methods*, 7, 422–445.
- Sleesman, D. J., Conlon, D. E., McNamara, G., & Miles, J. E. (2012). Cleaning up the big muddy: A meta-analytic review of the determinants of escalation of commitment. *Academy of Management Journal*, 55(3), 541–562.
- Soman, D. (2001). The mental accounting of sunk time costs: Why time is not like money. *Journal of Behavioral Decision Making*, 14(3), 169–185.
- Spence, M. (2002). Signaling in retrospect and the informational structure of markets. *American Economic Review*, 92(3), 434–459.
- Staiger, D., & Stock, J. H. (1997). Instrumental variables regression with weak instruments. *Econometrica*, 65(3), 557–586. <http://dx.doi.org/10.2307/2171753>.
- Staw, B. M. (1976). Knee-deep in the big muddy: A study of escalating commitment to a chosen course of action. *Organizational Behavior and Human Performance*, 16(1), 27–44.
- Staw, B. M. (1981). The escalation of commitment to a course of action. *Academy of Management Review*, 6(4), 577–587.
- Staw, B. M., & Ross, J. (1980). Commitment in an experimenting society: A study of the attribution of leadership from administrative scenarios. *Journal of Applied Psychology*, 65(3), 249–260.
- Staw, B. M., & Ross, J. (1987). Behavior in escalation situations: Antecedents, prototypes, and solutions. In L. L. Cummings, & B. M. Staw (Vol. Eds.), *Research in organizational behavior*. Vol. 9. *Research in organizational behavior* (pp. 39–78). Greenwich, CT: JAI Press.
- Staw, B. M., & Ross, J. (1989). Understanding behavior in escalation situations. *Science*, 246(4927), 216–220.
- Summers, J. K., Humphrey, S. E., & Ferris, G. R. (2012). Team member change, flux in coordination, and performance: Effects of strategic core roles, information transfer, and cognitive ability. *Academy of Management Journal*, 55(2), 314–338.
- Taggar, S., Hackew, R., & Saha, S. (1999). Leadership emergence in autonomous work teams: Antecedents and outcomes. *Personnel Psychology*, 52(4), 899–926.
- Tovey, M. D., Uren, M.-A. L., & Sheldon, N. E. (2010). *Managing performance improvement*. Frenchs Forest, N.S.W: Pearson.
- Uitdewilligen, S., Waller, M. J., & Pitariu, A. H. (2013). Mental model updating and team adaptation. *Small Group Research*, 44(2), 127–158.
- Wainwright, S. F., Shepard, K. F., Harman, L. B., & Stephens, J. (2010). Novice and experienced physical therapist clinicians: A comparison of how reflection is used to inform the clinical decision-making process. *Physical Therapy*, 90(1), 75–88.
- Walker, R., Henderson, A., Cooke, M., & Creedy, D. (2011). Impact of a learning circle intervention across academic and service contexts on developing a learning culture. *Nurse Education Today*, 31(4), 378–382.
- Walter, F., Cole, M. S., van der Vegt, G. S., Rubin, R. S., & Bommer, W. H. (2012). Emotion recognition and emergent leadership: Unraveling mediating mechanisms and boundary conditions. *The Leadership Quarterly*, 23(5), 977–991.
- Weick, K. E. (1993). The collapse of sensemaking in organizations: The Mann Gulch disaster. *Administrative Science Quarterly*, 628–652.
- Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage.
- Whyte, G. (1986). Escalating commitment to a course of action: A reinterpretation. *Academy of Management Review*, 11(2), 311–321.
- Widmer, P. S., Schippers, M. C., & West, M. A. (2009). Recent developments in reflexivity research: A review. *Psychology of Everyday Activity*, 2(2), 2–11.
- Zaccaro, S. J., & Bader, P. (2003). E-leadership and the challenges of leading e-teams: Minimizing the bad and maximizing the good. *Organizational Dynamics*, 31(4), 377–387.
- Zaccaro, S. J., Heinen, B., & Shuffler, M. (2009). Team leadership and team effectiveness. *Team effectiveness in complex organizations: Cross-disciplinary perspectives and approaches* (pp. 83–111).
- Zaccaro, S. J., Rittman, A. L., & Marks, M. A. (2001). Team leadership. *The Leadership Quarterly*, 12(4), 451–483.
- Zellmer-Bruhn, M. E. (2003). Interruptive events and team knowledge acquisition. *Management Science*, 49(4), 514–528.
- Zhang, L., & Baumeister, R. F. (2006). Your money or your self-esteem: Threatened egotism promotes costly entrapment in losing endeavors. *Personality and Social Psychology Bulletin*, 32(7), 881–893.