RESEARCH PAPER

Center for Creative Leadership

Reading the Room

BEHAVIORAL SIGNALS LEADERS CAN USE TO FOSTER PSYCHOLOGICAL SAFETY

By: Andy Loignon, Lauren Millender, Daniel Smith, & Diane Bergeron

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Executive Summary

Psychological safety is defined as a shared belief that it is safe to take interpersonal risks within a team (Edmondson, 1999). Teams with higher levels of psychological safety report increased engagement, creativity, and task performance (Frazier et al., 2017). Despite its importance, psychological safety often remains implicit and taken for granted.

By focusing on conversations, leaders can gain insights into the signals of psychological safety present within their teams. Understanding these signals can help leaders and team members better identify and reflect on the signals they may be sending, consciously or inadvertently. By selecting and practicing intentional signals, leaders can model and reinforce the desired level of psychological safety within their team.

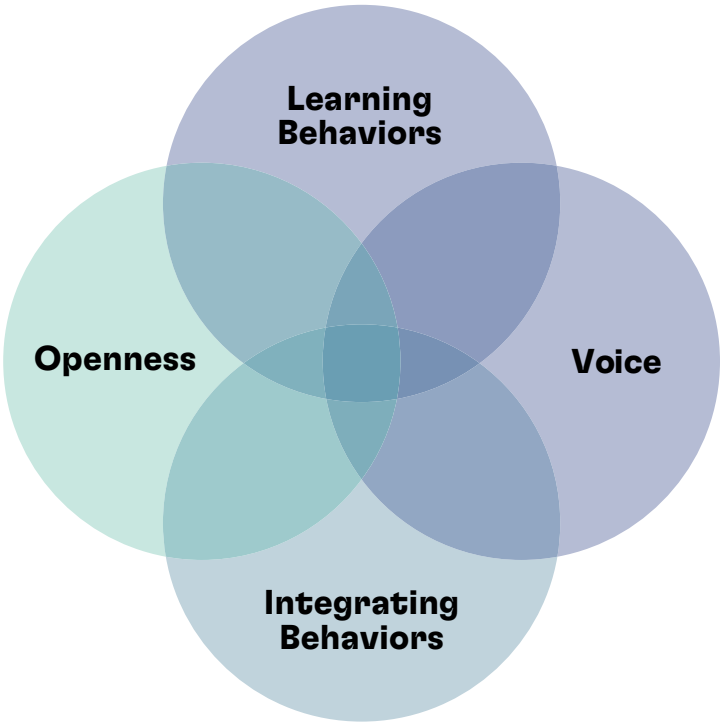

Figure E1. Overview of Behavioral Categories Identified

Our review identified 4 behavioral categories related to psychological safety: learning behaviors, voice, openness, and integrating behaviors (see Figure E1). These categories are not mutually exclusive and thus may overlap, reinforcing the complex nature of team interactions. For instance, a single behavior may align with both openness and learning behaviors. To aid the practical application of our framework, we also developed a checklist of prototypical signals that can make these categories more intuitive and concrete for leaders and team members as they implement new behaviors.

We offer 4 key recommendations for leaders: leverage your outsized role, focus on each team members' unique signals, encourage team members to look out for these signals themselves, and recognize that psychological safety is dynamic and subject to change. By implementing these strategies, leaders can foster an environment in which team members feel safe to express themselves and take risks, which ultimately enhances team effectiveness.

Reading the Room: Behavioral Signals Leaders Can Use to Foster Psychological Safety

Psychological safety is considered a critical component of team effectiveness (Duhigg, 2016). In psychologically safe team environments, members share the belief that it is safe to take interpersonal risks (Edmondson, 1999). Teams with higher levels of psychological safety consistently reported higher engagement, creativity, and task performance (Frazier et al., 2017). Given the importance of psychological safety, leaders are encouraged to regularly assess and cultivate such a climate among their teams.

However, it's important to note that psychological safety is often implicit, unspoken, and taken for granted (Edmondson, 1999). Ask yourself:

When was the last time you openly discussed with your team members how psychologically safe you were feeling? Alternatively, have you talked about how safe your team members feel taking interpersonal risks? Chances are, these kinds of conversations are rare — if they happen at all.

Rather than explicitly discussing interpersonal riskiness, leaders and team members tend to *signal* their perceptions of psychological safety to each other through their behavior. Many behaviors, then, can be thought of as signals that can help reduce instances when one team member may have information another member does not (e.g., Connelly et al., 2011). Because each team member will independently calculate their own level of perceived risk, another person's precise judgment of the existing level of psychological safety is largely unobservable. Behavioral signals, then, can help team members better understand and anticipate one another's personal level of psychological risk (e.g., Liu et al., 2017) and afford a shared experience within the team. This will allow the team to function as a collective unit (Loignon & Wormington, 2022).

At the Center for Creative Leadership, we believe that leadership is a social process. As such, leadership is not the purview of a select few. Instead, leadership is actively cultivated through the interactions among members of a collective, such as a team or organization (Drath et al., 2008). What's more, this social process largely unfolds through leaders' and team members' conversations (Loignon et al., 2024). Thus, when trying to ascertain the degree to which a team is psychologically safe, paying attention to the dialogue among team members — and the signals of psychological safety it sends — is a useful way to start.

BEHAVIORAL SIGNALS OF PSYCHOLOGICAL SAFETY

How do leaders and team members signal their psychological safety to each other during conversation? Answering the following question, even tentatively, could help leaders:

- become better at "reading the room" and getting a sense of their team's level of psychological safety,
- reflect upon the signals they may be (inadvertently) sending during their conversations, and
- select, practice, and use intentional signals to model and reinforce the level of psychological safety they want their team to experience.

Even during relatively brief interactions, leaders and team members bombard each other with actions and statements; therefore, it's critical to carefully choose which psychological safety signals to use (or not use).

First, consider what is required for a signal to effectively convey one's level of psychological safety (Connelly et al., 2011). The most fundamental requirement is that the signals be observable. If team members are not reliably observing signals, those signals cannot be depended on to consistently and reliably transmit information (Connelly et al., 2011). We propose that effective signals of psychological safety are observable and largely transmitted via behaviors during leaders' and team members' conversations. Behaviors, in this context, can be thought of as both the actions or inactions of group members in response to their own internal experience of what is occurring in their environment (Banks et al., 2021, p. 1; Levitis et al., 2009, p. 103).[1]

Choosing which signals of psychological safety to use (or not use) is critical. This is because leaders and team members are bombarded with actions, phrases, and statements – even during relatively brief interactions.

What people say and do during conversation often qualifies as "behavior," which others can readily observe (e.g., Loignon et al., 2025). Furthermore, the same behavior, if repeated over time or expressed more intensely, becomes even more observable (Connelly et al., 2011).

In addition to being observable, effective signals must also "cost" something to the person sending the signal, whether by their perception or that of others (Connelly et al., 2011). If a signal isn't costly, it means that it can be sent by *any* team member regardless of their actual motivation, which in our case, is their underlying level of psychological safety. These low-cost signals, therefore, will eventually be ignored by others in the group because they fail to convey meaningful information

[1] Importantly, any single, or even set of, behavior(s) may convey information regardless of one's intention. Thus, behavioral signals may not always produce their intended effect.

and, eventually, become treated as noise (e.g., Bangerter et al., 2012). Essentially, costly signals carry more weight. To make it more complicated, however, the concept of "cost" can be thought of in several different ways.[2]

Cost may, for instance, reflect how difficult it is to engage in a particular behavior. For example, certain behaviors require an exceptional level of skill or expertise (Akstinaite et al., 2024; Tskhay et al., 2017). One example of this is engaging in charismatic leadership behaviors (e.g., using metaphors or narratives when describing a valued collective outcome), which require concerted practice, certain predispositions, and sufficient abilities (Akstinaite et al., 2024; Antonakis et al., 2011). This signal is costly because it is well-known that their ability to exhibit it at all requires a timely investment. Beyond acquiring the ability to use signals like this, individuals must then practice the behavior extensively or take advantage of certain natural dispositions that make it easier to express the behavior (e.g., Antonakis et al., 2011). Thus, for some signals of psychological safety to be effective, we would expect them to require some level of expertise, skill, or practice. For example, to signal psychological safety, team members must navigate juxtapositions like admitting mistakes while still maintaining perceptions of competence or vulnerable disclosure, all while upholding expectations of professionalism.

Signals may also entail social costs (e.g., Feldman, 1984). For example, if a team member takes an interpersonal risk, they may find themselves dismissed, challenged, or even ridiculed within the team. These social sanctions can be quite costly for those who express them.

Social costs may also increase if a team member or leader sends an unintentionally *misleading* signal (e.g., Bird & Smith, 2005). Within the context of psychological safety, this involves signals that inadvertently suggest a team member's willingness to take interpersonal risks when, in fact, they do not want to take such a risk. For instance, a team member may appear willing to share concerns about existing processes, but upon being asked to share, they realize it may be risky to provide this feedback and backpedal. This form of costliness, then, can help ensure that honest or accurate signals are sent during a conversation.

Taken together, observable and costly signals of psychological safety cut through the "noise" during any conversation. During most conversations, multiple team members jostle for airtime, sending various signals simultaneously or in quick succession, with each likely trying to convey some message of varying importance. Theoretically, then, team members are much more likely to be attuned to signals they can see and that might incur some cost for the sender. Without these 2 features (observability and cost), a signal cannot be expected to garner attention, which ultimately defeats the purpose of sending a signal.

OUR CURRENT WORK

Given that psychological safety is both critical for a team's effectiveness and rarely discussed explicitly, we have set out to identify the signals most likely to be effective during a team conversation. We conducted a systematic review of existing research literature to identify *behavioral* signals of psychological safety in teams. By identifying and synthesizing these signals, we

[2] To make the concept of costly signals clearer, we might think about how one's knowledge or skills are signaled in a labor market (e.g., Spence, 2002). In labor markets, educational credentials are thought to function as costly signals of an applicant's unobservable qualities (e.g., skills or knowledge). The cost of these credentials stem from natural ability, effort, or the risk of dishonesty. That is, individuals with greater abilities or who expend more effort are more apt to attain such credentials and, conversely, there are penalties for those who forge such credentials. If degrees lose their costliness (e.g., via inflation or lax standards), they would be less costly and lose their signaling value.

hope leaders can use our findings to more easily "read the room," make real-time inferences about psychological safety, and adjust their actions accordingly.

Psychological Safety: Our Review of the Literature

In this section, we describe how we approached the prevailing literature on psychological safety and how we set out to collect and synthesize this research.

Our Approach to the Literature

Before beginning our review of the literature, we considered, broadly, how leaders and team members may signal their psychological safety. Because psychological safety emerges through social interactions among team leaders and their team members, we anticipated that signals would pertain to both an individual's own actions (e.g., what they express during a conversation) and what they perceive others to be doing during the team's conversation. As others have noted (Bandura, 1977; Salancik & Pfeffer, 1978), leaders and team members regularly observe each other in their immediate context, form judgments about what is appropriate, and update their perceptions accordingly.

We also explicitly considered signals that would connote feelings of either psychological *safety* or *unsafety*. Like other constructs where positively or negatively valanced dimensions are thought to be conceptually distinct (e.g., positive vs. negative mood; Watson et al., 1988), we intentionally sought to identify behavioral signals that could evidence perceptions of minimal risk (i.e., the team is psychologically safe) or an abundance of risk (i.e., the team is psychologically unsafe). Because both sets of signals may manifest at different rates, co-occur, and ebb and flow over the course of a team's conversation, it seemed important to make this initial conceptual distinction in our efforts.

Lastly, when conducting our literature search, we focused on behaviors. That is, we were primarily concerned with research identifying actions or inactions that group members exhibit in response to both their own internal experiences and what is happening in their environment (Banks et al., 2021). Taking this approach resulted in a 2x2 framework that guided our literature search, coding efforts, and our understanding of existing research (Figure 1).

	Psychologically Unsafe	**Psychologically Safe**
Individual Expresses	Actions an *individual* engages in that signal that they perceive the group to be *unsafe*.	Actions an *individual* engages in that signal that they perceive the group to be *safe*.
Others Connote	Actions *others* engage in that signal they perceive the group to be *unsafe*.	Actions *others* engage in that signal that they perceive the group to be *safe*.

Figure 1. Organizing Framework for Systematic Literature Review

How We Synthesized the Literature

Having established an organizing framework, we proceeded to conduct a systematic search of the existing psychological safety research (see Figure 2). First, we accessed articles from the Web of Science database that cited Edmondson's (1999) seminal article, which is largely credited with establishing the construct of psychological safety in teams within the academic literature. This initial step generated a total of 4,974 articles.

Second, we screened and retained articles at this stage if they were (1) empirical in nature, (2) published in a peer-reviewed journal, and (3) measured psychological safety within the study. From these screened articles, we systematically sampled articles to identify a subset that represented distinct time periods and levels of influence within the literature. Specifically, we sorted articles into 5 time periods by capturing, approximately, 5-year publication intervals (i.e., 1999–2005, 2006–2010, 2011–2015, 2016–2020, 2021–2025). Within each time period, we rank-ordered articles by publication citation strength. In the academic literature, citations to a given article are a measure of the article's impact on the field (e.g., Aguinis et al., 2012). Citation strength was operationalized using each article's normalized citations and represents the number of times an article has been cited relative to the average number of times an article from that same publication year has been cited (Waltman & van Eck, 2015). This metric effectively adjusts a given article's raw citation count to account for the year it was published (because more recently published articles have had fewer years over which to be cited). Based on this rank-ordering, the author team sampled 2 empirical articles from the top and bottom of this rank-ordered list that explicitly measured psychological safety. Additionally, one random article was sampled from the remaining articles after identifying the 2 top and bottom articles. Ultimately, 5 articles from each time period were sampled and subsequently coded. In the end, 468 of the original 4,974 articles were screened in the coding process.

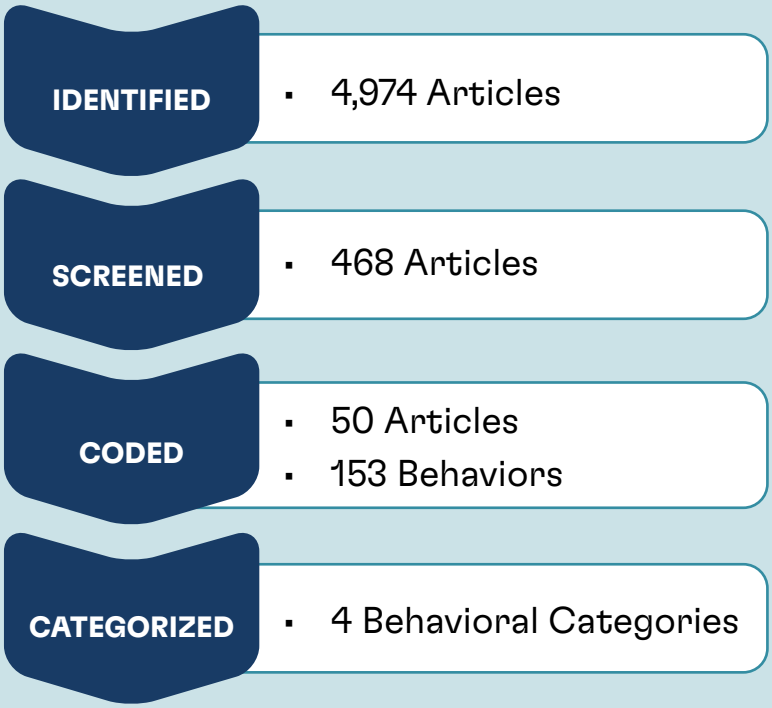

Figure 2. Summary of Major Steps in Literature Review

Note. "Behaviors" refers to the various actions that may signal the presence or absence of psychological safety among team members.

This entire process was repeated twice to ensure saturation, resulting in 50 sampled articles (see Appendix A for the articles included in our

review). A wide range of disciplines, including articles from psychology, management, medicine, and education, were represented in our final sample. Importantly, the total number of articles included in our sample is comparable to the number previously included in prior meta-analyses or syntheses of the literature (maximum k = 30 studies) using primary studies of psychological safety (Frazier et al., 2017). Thus, our sampling strategy, although focused, is well-equipped to provide representative results.

Next, within each sampled article, we then coded and extracted instances where psychological safety was measured as either an antecedent or outcome for behavioral measures, how the presence (or absence) of psychological safety was explicitly signaled via behaviors by others, and whether psychological safety was reported as co-occurring with another variable. This process yielded 153 distinct actions or behaviors.

Rather than explicitly discussing interpersonal riskiness, leaders, and team members tend to signal their perceptions of psychological safety to each other with behavior.

The first and second authors sorted these actions or behaviors into distinct categories using a thematic analysis approach. Each author read the full set of behaviors independently and identified a list of potential categories. Once the initial list of categories was established, the coders assigned the behaviors to one or more categories. Across the categories, the 2 authors obtained, on average, a Cohen's kappa of .77 (Cohen, 1968), which suggests that both agreed in their assignment of behaviors to categories (i.e., adequate levels of inter-rater agreement).

After this initial step, the authors examined the remaining unassigned behaviors and determined that a fourth category accurately represented most of the unassigned behaviors. For the few remaining noncategorized behaviors, other categories were considered but ultimately rejected because the remaining behaviors either reflected nonbehavioral correlates of psychological safety (e.g., demographic characteristics), distal outcomes of psychological safety (e.g., team performance), or an insufficient number of behaviors to justify an additional behavioral category.

THE PREVAILING BEHAVIORAL SIGNALS OF PSYCHOLOGICAL SAFETY

In this section, we first provide an overview of our findings (e.g., summary-level results of our review). We then discuss each behavioral signal category that emerged. Finally, we advance several holistic interpretations that we hope will facilitate the integration of the signals into a more meaningful framework.

Initial Overview of Our Findings

Figure 3 provides an overview of our literature review findings. The top panel depicts the 4 behavioral categories that emerged: *learning behaviors*, *voice*, *openness*, and *integrating behaviors*. Our choice to adopt a Venn diagram is intentional and reflects the theoretically integrated nature of these behaviors. As noted earlier, certain behaviors aligned with multiple, broader categories in some cases. For instance, a single verbal behavior during a conversation could potentially be classified as both openness and a learning behavior. Furthermore, it is likely that these behaviors will co-occur during a conversation. For example, individuals with particular dispositions (e.g., agreeableness) or skills (e.g., empathy) may be more apt to exhibit behaviors across several categories in our framework (e.g., openness and learning behaviors).

The lower panel in Figure 3 summarizes how frequently each category appeared in the reviewed literature. Behaviors were most commonly assigned to the *Learning Behaviors* category (45%). This finding is consistent with the fact that the original work on psychological safety obtained clear association with these kinds of behaviors (Edmondson, 1999). We identified 3 other categories of behaviors: *Voice* (15%), *Integrating Behaviors* (13%), and *Openness* (9%).

CONSIDERING EACH CATEGORY OF BEHAVIORAL SIGNALS IN MORE DETAIL

In this section, we review each of the 4 categories of behavioral signals in more detail, including how they're defined, specific examples of observable and costly signals, and other practical considerations.

Learning Behaviors

Learning behaviors, in general, represent actions that leaders and team members take to allow the group to detect and correct errors (Edmondson, 1999). For instance, team leaders and members may explicitly admit when they have made an error and seek help to rectify the issue (Tynan, 2005). Such learning behaviors, regardless of who exhibits them, carry an inherent risk of a cost, which increases their effectiveness (Connelly et al., 2011). For example, if a leader or team member tells others they made an error, it may help the team learn, but it may also increase the risk of others perceiving the one who made the mistake as less competent or conscientious. Likewise, a request for help to rectify an error could be eschewed or denied rather than being welcomed (Barnes et al., 2008).

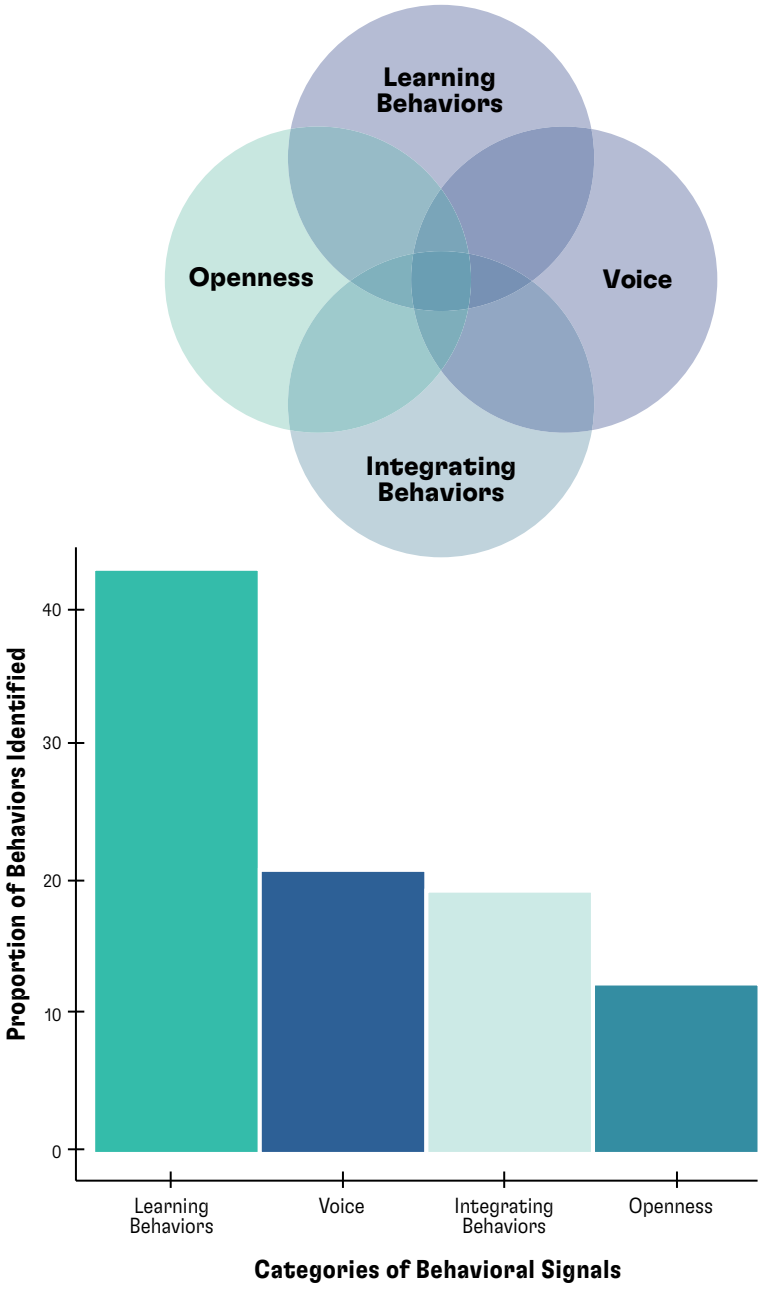

Figure 3. Overview (Top Panel) and Frequency of Behavioral Categories Identified in Literature Review (Lower Panel)

Note. We chose to display the 4 behavioral categories conceptually as a Venn diagram because it depicts the interrelated nature of behaviors during leader and team member interactions (e.g., behaviors likely co-occur and the same behavioral signal may functionally operate in multiple categories). The y-axis in the bar chart depicts the proportion of all behavioral signals assigned to a given category, thus excluding nonbehavioral categories that emerged during the coding process (e.g., outcomes of psychological safety, such as team performance).

We also identified actions within this category that may *undermine* a team's climate of psychological safety. Some examples include instances where leaders and team members discouraged others from suggesting new ideas or displayed negative behaviors like blaming, chastising, or penalizing for perceived errors (Ocampo et al., 2025). Each action is likely to signal that a team is psychologically unsafe and that it is unwise to take interpersonal risks.

Voice

Voice is defined as the "informal and discretionary communication of ideas, suggestions, concerns, problems, or opinions about work-related issues, with the intent to bring about improvement or change" (Morrison, 2023, p. 80; Van Dyne & LePine, 1998). Prior research has found that perceptions of voice behaviors are positively and consistently related to ratings of psychological safety (Sherf et al., 2021).

Importantly, voice can manifest in a variety of ways (Morrison, 2023). For example, team members may suggest new ideas or alternative procedures (i.e., promotive voice) or they may raise concerns about existing approaches (i.e., prohibitive voice). People may also invite others to contribute ideas or amplify others' voices (Bain et al., 2021; Javed et al., 2019).

In each case, action has real costs. Making a critical suggestion that is effective and brings about the intended change requires some level of communication skills, yet it may still elicit negative reactions from those who prefer the status quo, or it may be costly in terms of social capital. Thus, voice in organizations may prove to be a costly behavior as individuals navigate how and when to speak up.

Silence also emerged as a unique signal in this category, given that it may indicate that team members believe the team is psychologically *unsafe*. Silence occurs when individuals actively withhold their ideas and thoughts rather than sharing them (Sherf et al., 2021). At the extreme, some have identified instances where colleagues withheld or "hid" knowledge from one another (Jiang et al., 2019). Importantly, withholding input, such as declining to share expertise and make contributions, also likely entails costs. Such withholding may result in opportunity costs in terms of missing instances to garner influence within the group (DeRue, 2011). Alternatively, one may incur formal and social sanctions if, somehow, it comes to light that they were actively holding back from the group (e.g., Brinsfield, 2013; Gruys & Sackett, 2003).[3]

Behaviors were most commonly assigned to the Learning Behaviors category (45%). Followed by Voice (15%), Integrating Behaviors (13%), and finally Openness (9%).

Integrating Behaviors

Signals within the category of integrating behaviors reflect actions that, when taken as a whole, are intended to further include, embed, and involve other group members. Importantly, this category appears to manifest in 2 interrelated but distinct ways. First, we identified signals that helped increase the accountability of others within the team. For example, monitoring team members' performance emerged as a signal of psychological safety in our review (e.g., Wu & Wang, 2020). This finding is consistent with prior

[3] Interestingly, compared to other behavioral signals of psychological unsafety, silence may elicit the most inconsistent responses. This is because silence, by definition, entails the absence of a behavior and tends to elicit more misattributions regarding one's motives (Knoll & Van Dick, 2013).

psychological safety research that has discussed how leaders can provide, and then hold employees to, clear performance standards (Walumbwa & Schaubroeck, 2009). Furthermore, prior research has found that accountability exerts important moderating effects that further enable the benefits of psychological safety to emerge (Higgins et al., 2022).

Along with integrating others in pursuit of performance accountability, there were also several behaviors or actions that sought to cultivate more relational inclusion. For instance, we identified actions that signaled friendliness and positivity (Hedlund et al., 2015), cohesion (e.g., Kayes, 2006), and trust (e.g., Y. Zhang et al., 2010). This trend is consistent with the original qualitative work on psychological safety, which emphasized the importance of team climates that engender a "feeling [to be] able to show and employ one's self without fear of negative consequences" (Kahn, 1990, p. 708).

Psychological safety is, by definition, a collective or shared experience within teams (Edmondson, 1999). This means, then, that all members of the group (especially if their actions or behaviors are visible to others) can have a role to play in shaping these climates.

Ultimately, such behaviors can incur costs for team members who choose to display them. For instance, deftly monitoring a peer's progress on a task requires a non-negligible amount of skill (Loughry & Tosi, 2008). Such efforts may be perceived as overreaching and therefore elicit backlash or be considered unhelpful. Likewise, those who initially send signals of friendliness, cohesion, and trust may be rebuffed if such behaviors are perceived as being overly familiar or personal and are not congruent with team norms (De Jong et al., 2016). Thus, integrating behaviors have the potential to meaningfully signal one's level of psychological safety to others.

Openness

Finally, our review identified several types of behaviors that we classified as reflecting openness. Relative to other categories, this group of behaviors is more diffuse, yet our review suggests that actions that exhibit openness are frequently connected with perceptions of psychological safety. Behaviors of openness include listening to others, expressing interest in another's ideas, giving fair consideration to ideas when they are presented, and taking action to address issues that are raised (Coutifaris & Grant, 2022; Detert & Burris, 2007; Van Quaquebeke & Felps, 2018). Other studies emphasize the importance of exhibiting both curiosity and humility to demonstrate one's openness (Ocampo et al., 2025; Thompson & Klotz, 2022). Several studies also argued that acknowledging one's own errors or mistakes is a distinct signal of one's openness (Coutifaris & Grant, 2022; Walumbwa & Schaubroeck, 2009; Yi et al., 2017; Zhang & Song, 2020). Finally, greater openness can be demonstrated through one's positive affect (Liu et al., 2017; Ocampo et al., 2025). Conversely, negative affect or anger seems to uniquely predict lower psychological safety within groups (Liu et al., 2017; Ocampo et al., 2025).

If we think of these actions as a group, the potential costs become clear. For instance, acknowledging one's own ignorance or errors, although likely helpful for making others feel more psychologically safe, also increases the risk of losing status or incurring both formal and informal organizational sanctions. Likewise, being open to suggestions can be helpful but may eventually elicit costly reactions if actions are not seen to be taken (Bergeron et al., 2023).

CONSIDERING A HOLISTIC VIEW OF BEHAVIORAL SIGNALS

Having reviewed a more detailed view of the 4 categories of behavioral signals that indicate psychological safety, we now elaborate on our findings and seek to conceptually organize our results within a framework (Figure 4). This framework, which extends our initial Venn diagram, depicts the 4 categories along 2 distinct dimensions. The x-axis, which runs along the bottom of the figure, indicates which categories of behavior are typically the purview of leaders and team members. For example, within the existing literature (Detert & Burris, 2007), openness is regarded as a signal that leaders exhibit in most cases. In fact, some of the earliest research on openness considered how senior leaders responded to potentially contentious information or ideas (Ashford et al., 1998; House & Rizzo, 1972). Voice, on the other hand, is, by definition, something that is expressed by individuals with less formal authority to those who are capable of taking explicit action and making decisions (Detert & Burris, 2007; Morrison, 2023). Thus, all else being equal, the degree to which we might expect a signal to originally emanate from a leader or team member is reflected in this model.

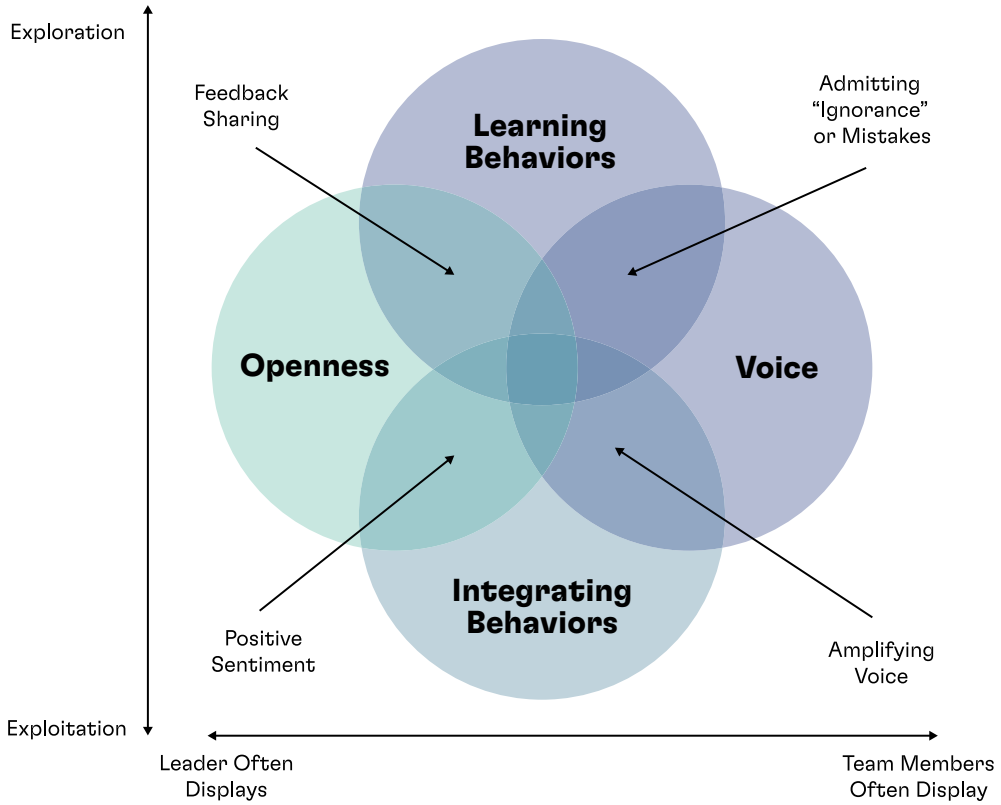

Figure 4. Expanded Conceptual Framework for Behavioral Signals of Psychological Safety

Note. The x-axis displays who within a group is expected, theoretically, to display certain signals more often. The y-axis displays which categories of signals are, theoretically, more relevant for taking advantage of current resources (i.e., exploitation) versus pursuing new resources (i.e., exploration)[4] (e.g., Gupta et al., 2006). Specific examples of behaviors that fall within overlapping regions of the categories are also depicted.

We also organized the categories vertically, along the y-axis, based on the extent to which the behavioral signal may lend itself to exploration or exploitation. Teams, like most systems, must pursue new resources and information that are focused on future performance (i.e., exploration) and take advantage of currently available resources and information (i.e., exploitation).[4] Both sets of activities are thought to be critical for team learning and adaptation (Gupta et al., 2006; Rosing et al., 2011). Integrating behaviors, with an emphasis on monitoring, performance accountability, and cohesion would, in general, contribute to more of an exploitation-focused behavior (i.e., extracting more output from the resources available to the team). Learning behaviors that emphasize effort identification and correction are more likely to contribute to exploration-focused objectives. Thus, as leaders and team members seek to signal their psychological safety, the team's current goals and objectives (e.g., exploration or exploitation) may shape what behaviors are most conducive or likely to occur.

Finally, as noted previously, our decision to use a Venn diagram is intentional, given the conceptual and empirical overlap among these categories. Thus, in Figure 4, we highlight specific examples of signals of psychological safety that would be classified into multiple categories. For example, feedback sharing, or instances where team members, though more often the team leader, provide feedback to others, can both help identify and correct errors while also exhibiting one's openness by being willing to discuss suggestions (Coutifaris & Grant, 2022).

Similarly, expressing positive sentiment during one's conversations can both signal openness and serve as an integrating behavior (Liu et al., 2017). That is, positive affect often indicates that one is curious and willing to entertain new ideas. Such a tone can also invite others into the conversation, since individuals are more apt to engage with others they perceive as warm and approachable (Fiske et al., 2002).

Amplifying others' voices can also function as a signal of psychological safety in interrelated ways (Bain et al., 2021). If, for example, a new critique is shared during a group's conversation, and someone else in the group "seconds" or "endorses" the idea, it helps propel the conversation forward (i.e., it is harder to ignore a subgroup compared with a single, token perspective). Such an action also serves to socially integrate the dissenting group member into the conversation.

Finally, the admission of ignorance or mistakes emerged as a unique type of signal in our review (Carucci, 2023; Coutifaris & Grant, 2022). Such admissions can help unearth previously unseen errors and facilitate further learning within the team, represent a strong signal of one's own openness, and, if these errors challenge existing processes, may serve as helpful critique of the status quo (i.e., voice). This specific example also further supports several of our propositions regarding the costliness of signals of psychological safety. Arguably, these kinds of admissions are some of the most costly actions a leader or team member can take. In turn, we would expect then that such admissions could also be one of the most impactful behaviors one could engage in.

[4] The terms "exploration" and "exploitation" are widely used within the broader academic literature (e.g., Gupta et al., 2006; Klonek et al., 2023; March, 1991; Rosing et al., 2011). In line with academic norms, and for clarity and consistency in the literature, we continue to use these terms. However, we acknowledge that such terms can invoke connections to other more problematic histories (e.g., colonization, social class conflict, destruction of the natural environment).

Imagine a leader saying, "I screwed up, and this is how we might change our processes." This is a very costly signal that, theoretically, stands a strong chance of cutting through the noise.

A CHECKLIST OF SIGNALS TO HELP LEADERS "READ THE ROOM"

To help leaders and their team members better apply our framework, we developed a checklist of prototypical signals that we hope will make each of the 4 categories feel more intuitive and concrete. Checklists are a long-standing practice used when facilitating observations within groups and can help team development (e.g., Brauner et al., 2018; Loignon et al., 2017).

Category of Signal	Type of Signal	Exemplary Signal
Learning Behavior	Pausing to reflect on how the team works	*"Let's take a moment to think about how we're working."*
	Discussing ways to improve	*"Maybe we should set up some time to talk about how we can work better."*
	Questioning assumptions	*"Can we take a step back and look at the assumptions we're making here?"*
	Seeking input from outside the team	*"Let's check in with our customers and get their feedback."*
Voice	Making recommendations	*"I have an idea to improve our process."*
	Suggesting new projects or changes	*"We could try a new tool or approach."*
	Advising against certain actions	*"Let's avoid what might slow us down."*
Openness	Valuing other suggestions	*"That's a really good point — I'll bring it up at our next management meeting."*
	Evaluating ideas	*"We'll definitely make sure your idea gets a fair look along with the others."*
	Endorsing others' ideas	*"I really like that idea — let's dig into it a bit more together."*
	Admitting mistakes	*"Sorry about that — I know I messed up, and I'm working on getting better."*
	Acknowledging when one is unsure	*"I'm not totally sure, but I'll check and let you know."*

Category of Signal	Type of Signal	Exemplary Signal
Integrating Behaviors	Monitoring – Notice	*"Sarah really stepped up with the presentation, and it's looking awesome."*
	Monitoring – Praise	*"Next meeting, let's highlight how David kept the project on track."*
	Monitoring – Correct	*"Hey Mark, I spotted a mistake in the spreadsheet. Can we fix it before we present?"*
	Monitoring – Discuss	*"Let's talk about how we're tackling tasks and maybe swap some tips."*
	Monitoring – Urge	*"We can crush this project. Let's give it our all and see what we achieve."*
	Accountability	*"Let's keep each other on our toes — it pushes us to be our best."*
	Accountability	*"These metrics are important — they show where we need to improve."*
	Inclusion – Uniqueness	*"Your design background brings something different to the table."*
	Inclusion – Belonging	*"I think the folks here genuinely get me."*

Note. The specific types of signals were identified based on the highest loading items from survey-based instruments that are widely used in the literature (e.g., Chung et al., 2020; Detert & Burris, 2007; Edmondson, 1999; Higgins et al., 2022; House & Rizzo, 1972; Liang et al., 2012; Ohland et al., 2012; Thompson & Klotz, 2022; Van Dyne & LePine, 1998). Our review also indicated that the emotional valence of a signal (i.e., positive or negative sentiment) can, itself, indicate the level of psychological unsafety in a team. Thus, observers using this checklist may also consider whether a signal was sent with a positive sentiment (e.g., happy, with ease) versus a negative sentiment (e.g., anxious, annoyed).

To develop the checklist (see Table 1), we extracted items from previously validated construct assessments within each category. We then prompted a large language model (LLM) to generate signals that were both realistic and likely to appear during a team's meeting or conversations.[5] Importantly, the checklist represents prototypical examples of the kinds of statements corresponding to categories of signals that were identified in our review. How such statements manifest in a particular meeting or conversation will likely vary based on the broader context (e.g., Johns, 2024). Nevertheless, by using this checklist, we anticipate that leaders, team members, and even coaches may be able to better determine their team's level of psychological safety.

Finally, it's important to reiterate that exemplary signals in the checklist seemingly correspond with characteristics of effectiveness signals. That is, whether the statements entail encouraging team reflections, making recommendations, endorsing others' ideas, or simply expressing feelings of group belonging, they likely elicit a range of potential costs (e.g., saying such statements skillfully, risking social sanctions, or avoiding inaccurate messaging (Connelly et al., 2011). Leaders and team members, then, are likely to attune to these kinds of signals — especially if they are displayed consistently within the group.

HOW LEADERS CAN "SEE" PSYCHOLOGICAL SAFETY IN A TEAM

Drawing on the 4 categories of behavioral signals we have identified, we now make 4 recommendations for how leaders and team members can better "see" psychological safety.

Team Leaders Should Leverage Their Outsized Role

Prior research suggests that formal team leaders have an outsized effect on the signals sent and received among their team members. A leader's actions and words are thought to be central in setting their team's climate (Salancik & Pfeffer, 1978). Team members are keenly aware of the signals their leaders send and thus rely on their leaders to interpret signals within the group. This outsized effect would apply to leaders who want to set the stage for psychological safety (Ocampo et al., 2025). Thus, we invite leaders to think about how they can intentionally harness this important team position.

First, a critical part of any conversation is the frequency with which each person speaks. If someone does not speak at all, there will be limited signals available for making inferences about psychological safety. Interestingly, in a recent study, we found that team leaders tend to be far more vocal than team members (in some conditions, as much as 150% to 300%!; Loignon et al., 2025). A leader's signals may be particularly observable and salient to others, simply because of their outsized role in the conversation.

Leaders who intentionally and actively create conversational space for others may find that team members send an entirely new range of signals, which can help leaders better assess the group's perception of psychological safety (Loignon & Bergeron, 2025).

When leaders speak with the intention of signaling their own level of psychological safety, we recommend reflecting on our emphasis on signal costliness. Recall that costly signals often require more ability or skill, might elicit strong reactions from others (i.e., social sanctions), and could cause others to call one's bluff (i.e., there are penalties for dishonesty). Leaders may find themselves in a predicament if they try to send what some call "cheap" signals (Bangerter et al., 2012). Consider, for example, a leader who initially asserts that they don't have the answer to a pressing problem their team is facing and who then invites their colleagues to provide input. In many ways, this signal incurs substantial costs for the leader (e.g., potentially indicating their lack of expertise). However, if the leader preferred a particular solution and simply invited feedback for strategic purposes, the signals they intended to send are cheapened and unlikely to yield the intended effect (e.g., Carucci, 2023). That is, the cost of admitting one's ignorance, and accordingly encouraging others to do the same, is diminished when it emergesz through subsequent interactions, that the leader was not genuine in their admission. Thus, in future interactions, team members may be less likely to attend to this leader's signals as they're now perceived as cheap.

[5] LLMs are an example of artificial intelligence and are capable of predicting patterns of behavioral data (e.g., Banks et al., 2025). We prompted CCL's internal LLM, which leverages Open's AI GPT4o model, by asking it to "generate questions or statements for each (item) that someone might say to exhibit the behaviors in the statements." The items that we provided the LLM were selected by selecting the highest scoring items from measures within the literature for each category (i.e., *Learning Behaviors, Voice, Integrating Behaviors* and *Openness*).

[6] Many of our recommendations are concerned with the interactions and conversations that unfold among leaders and their team members. However, we also acknowledge the importance of organizational-level mechanisms for "seeing" distal signals of psychological safety (e.g., employee engagement results, team- or division-level employee turnover rates). These kinds of measures may serve as valuable signals of broader, systemic issues within a particular area of an organization.

This does not mean that leaders need to wear their hearts on their sleeves (e.g., Pfeffer, 2015). Instead, authentic and appropriate signals selected for the moment and context are likely to be more effective. Consider, for example, one of the signals that emerged in our review expressing positive affect. Signaling positive emotions often suggests to others that one is feeling optimistic and open to experimentation (Liu et al., 2017), which enhances a climate of psychological safety.

Psychological safety is often assumed in teams but rarely discussed .

Such signals, though, may be less costly (and therefore ineffective) if they are communicated while one is in a negative mood. In fact, emotional surface acting can be taxing and quite exhausting (e.g., Grandey, 2000). Instead, we recommend leaders lean into sets of signals that may be easier to regulate and less impacted by in-the-moment moods (see Table 1 for some options).

Focus on Parts, Not the Whole

Psychological safety is, inherently, a personal perception (James et al., 1988). That is, although it is cognitively convenient to think of the team's psychological safety as a whole, each "part" (team member) has unique experiences despite being a member of the group. Each member has distinct conversations, occupies specific roles, and has been a part of the team for different lengths of time (Bransby et al., 2024). It is thus reasonable that team members would take in and synthesize the signals sent within the group to form personal judgments about how safe they feel, individually, within the team. In fact, it is quite common for team members to *disagree* about perceptions of psychological safety. These patterns of disagreement can help predict team performance (Loignon & Wormington, 2022). Extending this logic, then, a leader might periodically reflect upon each team member's actions using our framework (Figure 4) and checklist (Table 1). Have certain team members not spoken up lately? Are ideas coming from a small number of team members? Who is (or is not) challenging others' assumptions? Have you, the leader, endorsed certain team members more than others (e.g., those who share a similar perspective)? Considering individual team members' signals serially, rather than as an amalgamation across team members, will likely yield interesting insights and lend itself to more targeted interventions, which is consistent with how psychological safety emerges (Frazier et al., 2017).

Encourage Members to Own the Team's Psychological Safety Climate

We also encourage team members to take responsibility for the psychological safety within their team. Formal team leaders may have heard something to the effect of, "Well, psychological safety is a leader's responsibility," and, in many ways, this statement is true (see the preceding section). Yet, psychological safety is, by definition, a collective or shared experience *within* teams (Edmondson, 1999). This means, then, that all members of the group (especially if their actions or behaviors are visible to others) have roles to play in shaping the climate of their team.

To facilitate collective ownership, our checklist in Table 1 could be shared with all team members. Ideally, this list of categories and exemplars can take what, at times, is implicit and taken-for-granted and make it more explicit, salient, and easier to discuss. In fact, team members can be asked to reflect upon what behaviors they have (or have not) noticed lately. At this point, it

might be helpful to encourage team members to be particularly mindful of behaviors that could signal an environment that is not psychologically safe. For example, silence or the withholding of one's ideas or perspectives is something that is difficult for others to assess and often provides unique information compared to other signals (e.g., Sherf et al., 2021). Similarly, a swift rebuke or sanctioning due to an error is different from offering praise for a success. Prior research would suggest that negatively valenced signals (i.e., those reflecting unsafety) may exert outsized influence on the team's climate, over and above those that are positively valenced (e.g., Kahneman & Tversky, 2013).

These initial, observational assessments may ultimately help team members consider what *they* typically do if the climate starts to feel psychologically unsafe. For example, are there some statements from the checklist that feel more natural? When a team member personally feels psychologically safe, what do they gravitate toward doing: sharing their ideas or encouraging others' thoughts? Are there certain behaviors that trigger feelings of unsafety for some team members due to past experiences? Identifying and talking about these kinds of habits or responses can help others better anticipate and understand what is being conveyed during the team's conversations.

Finally, team members can be encouraged to *resend* signals. Recall that consistent signals tend to be more effective. If the first attempt doesn't seem to register with others, team members can be encouraged not to assume that the climate is, in fact, unsafe. Instead, they may first try to resend the signal to ensure that others see it, respond to it, and receive their message.

Don't "Send It and Forget It"

Psychological safety, like all climates, will ebb and flow over time because of factors within and outside a leader's control (Higgins et al., 2022; Marlow et al., 2025). In fact, in a separate study with 1,300 student-based project teams, we found that team members' personal experiences of psychological safety could *shift* meaningfully over the course of just a few weeks. This finding is consistent with earlier research, which indicates that psychological safety varied from meeting to meeting among leaders-followers in the course of just 2 weeks, based on an average of just 7 meetings (Liang et al., 2012). Thus, rather than assuming that a team's psychological safety is (ever) firmly established (Loignon et al., 2022), leaders and team members should intentionally reflect across meetings, especially in the wake of major milestones, and reassess whether recent signals suggest any upward or downward trends in the team's psychological safety.

LIMITATIONS AND FUTURE RESEARCH

As with any research, our study has several limitations. First, we chose to systematically screen, sample, and then code psychological safety articles. This process, although helpful for enhancing the efficiency of our review, raises the possibility that we may have missed unique examples of behavioral signals of psychological safety that do not conform with our broader framework. That said, our literature search is comparable in size to what has been reported in prior empirical literature reviews (Frazier et al., 2017), thus likely providing a reasonable assessment of the major themes within the extant research. Second, we should note that our framework is conceptual in nature. Kurt Lewin, a renowned psychologist, once noted that there is "nothing so practical as a good theory" (Lewin, 1943). Rigorous conceptual theories and frameworks help us focus our efforts and attention on the things that matter, help guide informative assessments, and allow us to identify key mechanisms for intervention. That said, we recommend that future research empirically test, and perhaps falsify, the proposed framework as the appropriate data becomes available.

Conclusion

Psychological safety is often presumed to exist in teams but is rarely discussed (Edmondson, 1999). Furthermore, differences among team members are seldom expressed or acknowledged (Loignon & Wormington, 2022). By drawing upon prevailing insights from the literature on psychological safety, our framework includes 4 behavioral signal categories that both leaders and team members can use. Leaders *need* psychologically safe teams to get the creativity, engagement, and performance such climates often afford (Frazier et al., 2017) — and team members need to feel safe to perform at their best. Our framework can help leaders and team members to better "see" and respond to psychological safety as it unfolds within their teams. When leaders and team members learn to "read the room," they can be more intentional with the signals they send and will be better able to interpret the signals they see.

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Authors

Andy Loignon, PhD is a Senior Research Scientist at CCL. His interests lie at the intersection of teams and leadership and the role of social class in organizations. He is currently studying topics like collective leadership, network models of boundary spanning, and how influence is shared and negotiated in groups. You can find some of his other research by visiting his Google Scholar page.

Lauren Millender, MA is a doctoral candidate in organizational science at the University of North Carolina at Charlotte. Her research centers on organizational communication and investigates questions of identification in organizations, relational leadership, and employee voice. Her work can be found by visiting her Google Scholar page.

Daniel Smith, PhD is an Applied Research Associate at CCL. His research spans the topics of leadership development, succession planning, psychological capital, executive coaching, and bibliometric methods. At CCL, he also works with clients to bring research insights into the foreground of their developmental experiences. More of his work can be found on his Google Scholar page

Diane Bergeron, PhD is a Senior Research Scientist at CCL. Her research areas include women's leadership and how workplace helping can hinder women's career advancement, the impact of leader listening on employees' speaking up, and bereavement and grief in the workplace, including bereavement-related organizational policies and practices. You can find more of her research by visiting her Google Scholar page.

Appendix A: References Included in Literature Review

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