PSYCHOLOGICAL SAFETY

Diversity is a key element of the modern landscape, but left unchecked, it can impair both performance and learning. The antidote: psychological safety.

by Amy Edmondson and Kathryn Roloff

A NURSE WORKING THE NIGHT SHIFT in a busy urban hospital makes her evening rounds – reviewing patients' treatment plans, taking temperatures and administering medications. She notices that the dosage for one of the patient's meds seems a bit high. Fleetingly, she considers calling the doctor at home to check the order. Just as fleetingly, she recalls the doctor's disparaging comments about her abilities the last time she called. All but certain that the dose is in fact fine (the patient has an unusual condition and is on an experimental protocol, justifying the high dose), she pulls the drug from the supply cabinet and heads for the patient's bed.

In the nurse's hesitation and almost imperceptible decision not to call the physician, she has implicitly considered – and effectively discounted – the possibility that a patient may be harmed. The discount is not caused by a lack of caring about human life; quite

the contrary, this person has devoted her career to caring for and helping to heal the sick. Instead, in that subtle moment of opportunity to voice rather than suppress a concern, her brain has exaggerated the importance of the doctor's scorn and minimized to near zero the chance of future harm to the patient.

Far from the urban hospital, a young pilot in a military training flight notices that the senior pilot, a captain, may have made a crucial misjudgment, but lets the moment go by without pointing out the error. The young pilot is not only of lower rank and status but is also formally evaluated on every flight. The prospect of speaking up to the superior officer brings significant emotional costs, even though the pilots are thought of as interdependent members of a cockpit team. Unlike the nurse, the pilot chooses silence possibly over preservation of his *own* life. Here again, he inadvertently dis-

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counts the chances that not speaking up will lead to a fatal crash and lets the anticipated discomfort of being chastised or ignored distort his judgment.

A senior executive, recently hired by a successful consumer products company, has grave reservations about a planned takeover. New to the top management team and conscious of his status as an outsider, he remains silent because other executives seem uniformly enthusiastic. Many months later, when it is clear that the takeover has failed badly, the team gathers to review what happened. Aided by a consultant, each executive muses on what he or she might have done to contribute to the failure. The silent executive, now less of an outsider, reveals his prior concerns, openly apologetic about his silence, explaining—with palpable emotion—that the others' enthusiasm left him afraid to be 'the skunk at the picnic'.

What these vignettes capture are moments of failed collaboration. Unfortunately, such moments happen countless times throughout the day in virtually every workplace, usually without much conscious attention. When uncertainty clouds our tentative thoughts and views – views that may be at odds with those of others' – we often take the path of 'reduced interpersonal resistance'; it feels natural to do so in all but the most familiar settings. This can happen when a lot is at stake (a patient's health, an aircraft's safety, a costly takeover) and when not much is at stake (a small improvement idea is not communicated to the individual who could act on it.) Either way, the silence, along with the incomplete thoughts that lie behind it, inhibits team learning in organizations that depend upon such learning for their ongoing viability.

Effective communication across boundaries – whether they be disciplinary, status-based, geographic or demographic — is particularly challenging under conditions of uncertainty. In this article we propose that 'psychological safety' can mitigate the challenges posed by such boundaries.

Psychological Safety

Psychological safety, or the belief that one will not be rejected or humiliated in a particular setting or role, describes a climate in which people feel free to express work-relevant thoughts and feelings. In psychologically-safe environments, people believe that if they make a well-intentioned mistake, others will not think less of them for it, nor will they resent or penalize them for asking for help, information or feedback. Psychological safety thus fosters the confidence to take interpersonal risks, allowing oneself and one's colleagues to learn and focus on collective goals and problem prevention rather than on self-protection.

While this may sound simple, expressing work-relevant thoughts and feelings can be unexpectedly challenging when those thoughts stand a chance to oppose the views of others, and when uncertainty makes it hard to know for sure whether one is right or how one might be received. Yet this is exactly what is required of teams and their members if they are to realize the promise of collaboration across boundaries.

My own [Prof. Edmondson's] research in a variety of organizations has shown that perceptions of psychological safety (whether high or low) tend to be very similar among people who work closely together, such as members of a team. This happens both because team members are subject to the same set of contextual influences and because these perceptions develop out of salient shared experiences. A team with high psychological safety is not one characterized by an unrelentingly positive affect or a careless sense of permissiveness, but rather one in which members are confident that their team will not embarrass, reject or punish someone for speaking up.

Team psychological safety thus describes an interpersonal climate characterized by trust and respect, in which people are comfortable being themselves. Leaders are instrumental in creating such a climate by explicitly inviting input and feedback, being inclusive and fostering trust and respect, while modeling openness and fallibility themselves. Consequences of a psychologically-safe environment may include help and feedback seeking, speaking up about errors and concerns, innovation and boundary spanning behaviour.

In organizations with salient power hierarchies such as hospitals, the interpersonal risks of speaking up can be particularly acute. Team leaders are often high-status senior physicians whose role and stature can be intimidating to members of other professions, such as nursing, social work, or physical therapy. In a study of cardiac surgery teams, I showed that physicians play a critical role in mitigating self-censorship by inviting team members to speak, minimizing the effect of status differences by explicitly stating that all team members' input is essential to providing high-quality care. Another study with Yale Professor Ingrid Nembhard looked at psychological safety and professional status in hospitals and its effect on improvement efforts. Notably, although psychological safety increased, on average, with professional status, in some work groups, inclusive leadership mitigated the status differences, and these groups were found to have greater engagement in quality improvement and more extensive team learning.

Three Types of Diversity

Organizations of all types rely heavily on the collaboration and learning of diverse teams. To date, researchers have often treated diversity as a single idea, diluting the interpretability of different findings. Penn State Professor **David Harrison** and Wharton's **Katherine Klein** propose organizing diversity into three categories: *separation*, *variety* and *disparity*. We will examine each in turn.

1. Separation Diversity

This type of diversity occurs when differences in a particular attribute within a group take different values along a horizontal continuum. For example, differences in opinion with respect to a particular issue represent a form of separation diversity, as do differences in time zone or physical location. Research shows that psychologically, individuals have a strong preference for others in a perceived 'in-group' and a bias against those in perceived 'outgroups'. As a result, when salient horizontal differences exist between members of a team, individuals categorize members as

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in-group or *out-group*, depending upon similarity to, or distance from them. Working in teams, people tend to prefer homogeneity over heterogeneity due to a preference for being with others who are perceived to be similar in values, attitudes and beliefs. On average, homogeneous teams experience greater trust and communication among members.

Despite deeply-entrenched cognitive biases towards similarity, it is well established that group conformity often leads to group-think and interferes with the creative process. The quality of the communication in non-diverse groups is likely to be narrow in scope and less useful for accomplishing team goals. Researchers have noted that the 'positive conflict' that arises from disagreement stimulates learning and collaboration in teams. However, achieving this is difficult because differences in values, attitudes or belief are deeply personal. However, with leadership and attention, groups with separation diversity can work together to build trust and psychological safety, enabling appreciation of others' differences.

Literal separation, in terms of physical location, is an increasingly common form of separation diversity, as a growing number of teams work across different locations. In many global companies, work teams in geographically-dispersed locations are used to integrate expertise. Harvard researcher **Debora Sole** and I showed that team members at specific locations can develop situated knowledge, or site-specific work practices and understanding, that team members in other locations lack. Such knowledge functions as a form of tacit team knowledge and can be a source of useful input for geographically-dispersed work teams. Yet without psychological safety and active sharing of this knowledge, it is ignored or underutilized, much the same way that tacit individual knowledge is underutilized.

2. Variety Diversity

With this type of diversity, group differences are categorical. For example, differences in education may categorize individual members into groups as 'psychologists', 'lawyers' or 'engineers'. Other categorical differences include gender or ethnicity. One of the major sources of variety diversity in organizational teams stems from differences in expertise. Teams with high levels of expertise differences are often called 'cross-functional teams'. Such multi-

disciplinary integration is on the rise, especially for innovation projects. Under the right conditions, expertise differences can stimulate learning behaviours, as cross-functional teams can serve as a mechanism for combining different sets of highly-specialized skills into one cohesive group.

The obvious benefit of this form of collaboration is the qualified, high-level information that can be brought to the table by each team member. On the other hand, specialized team members can become entrenched in the values and knowledge of their discipline, resulting in reduced flexibility and increased conflict. When teamwork is hampered by goals narrowly associated with discipline identity, consensus becomes difficult. However, the conflict that arises in groups with expertise differences can improve team learning because it is caused in part by the sharing of multiple perspectives and scenarios while preventing the threats of groupthink.

Demographic differences serve as another major source of variety diversity in work teams, stemming from the increases in travel and immigration. Organizations recognize this trend and often create diverse teams to access unique cultural perspectives. Yet, merely having members of various cultures on a team is not enough to realize the associated benefits. In one study, researchers found that when significant cultural differences are apparent in groups, individuals will often identify more strongly with their cultural subgroup rather than with the larger group. This is because being in the cultural minority is often an obvious part of the individual's identity, and these individuals perceive their evaluation as team members as tied to their cultural identity. Here too, it takes effort to build an interpersonal climate in which these differences can be enriching to the team's process and output.

3. Disparity Diversity

Disparity diversity is manifested as group differences falling along a vertical continuum, ranked according to the social value of a particular attribute. For example, differences in professional status among team members. This type of diversity may be the most challenging for ensuring collaboration: when differences between members fall on a vertical scale where those at the top have the most power and those at the bottom have the least, lower-power individuals may find it hard to speak up, as illustrated in our opening vignettes.

Examples of Team Diversity Figure One				
	Demographic	Expertise	Location	Status
Type of Diversity:	Variety and/or disparity	Variety	Separation	Disparity
Composition of Team:	Multiple identity groups based on demographic origins	Multiple sets of skills and expertise based on education and work experience	Geographically dispersed team members	More than one status level
Team Challenges:	Tacit knowledge based on culture, gender, race, age or other salient identity	Team members who identify with expertise-related subgroups over team identity	Creating a team goal adapted to multiple local needs	Social norms of deference to authority
Collaboration Enabled By:	Sharing individual perspectives Creating an orientation towards valuing cultural differences	Sharing expertise- based knowledge as possible Fostering a collective group identity	Periodic visits to other sites Attention to unique local knowledge and focus on shared goal Periodic visits to other sites.	Leadership inclusiveness to minimize experienced status gaps

Although demographic differences are categorical, they sometimes also fall along a power hierarchy due to the nature of social power hierarchies in society; for example, power differences in organizations have been documented for gender and race. Individuals cognizant of the threat of negative stereotypes associated with cultural identity may become hindered by self-fulfilling prophecies or a perceived need to 'overcome' negative stereotypes before being valued on equal turf with the other members of the team. Similarly, unconscious negative stereotypes significantly hinder the team's performance by virtue of team members 'dancing around the issue,' which allows negative stereotypes to arise in other, more subtle ways.

Teams and organizations that work to actively acknowledge and utilize unique cultural knowledge *ipso facto* support many of the factors associated with increased psychological safety, notably respect for different points of view and norms of openness in communication. Thus, in culturally-diverse teams, members' perspectives on cultural diversity can serve to increase or decrease team psychological safety and learning.

When teams are initially formed, cultural diversity can promote team learning by including a wide range of perspectives, which increases the amount of team knowledge. However, over time, if the power hierarchies associated with ethnic differences persist, these differences can limit the effectiveness of communication and hence collaboration. Without active attempts to reduce power differences, over time ethnic diversity is likely to limit the effectiveness of communication by silencing less powerful team members and reducing collaboration. This is in part because members of different identity groups – whether based on age, race,

gender or cultural background – come to the team with different taken-for-granted assumptions that, when left unexplored and unchallenged, can give rise to misunderstandings.

Teams can also encompass differences in professional status, another form of disparity diversity. Professional status has been found to significantly impact team beliefs about psychological safety. Team members are well aware of the benefits that come with professional status. Yet, even team members with identical professional identities can have status differences (consider intern-level and senior attending physicians working together to care for patients, or the pilots with whom we opened this chapter). When teams include one or more members of different status, the stakes for taking interpersonal risks increase for the lower-status members. Lower-status team members are often fearful of the negative consequences associated with perceived incompetence such as lowered chances of promotion or salary increase. Such fears can prohibit a candid flow of discourse, which is replaced instead by politeness and indirectness, abstract conversation and feigned reflective discussion.

When Diversity Types Co-Occur

The three types of diversity described above are not mutually exclusive. In fact, teams are likely to contain combinations of them. For example, an emergency room team comprised of nurses, residents and physicians faces issues of status, expertise, and oftendemographic differences as well. Teams with more than one kind of diversity will face even more serious barriers to collaboration, particularly if the areas of diversity overlap, creating deeper fissures or 'faultlines'. These occur when two or more identity groups

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in a team show a high degree of overlap (e.g., 'gender and function', or 'status and expertise'), increasing the chances of conflict.

While the various types of diversity described here create potential barriers to collaboration, each can be overcome through careful attention to group process. For demographic differences, it is helpful to ensure that the unique perspectives that come with age, gender, race or cultural background are discussable. Discussion can help people value these differences and see them as resources for the group's task. Similarly, expertise diversity can be mitigated by skillful sharing of relevant knowledge, and by a strong collective group identity. For example, field research on dispersed teams shows that visiting each others' work sites is a powerful way to build trust and understanding and facilitate collaboration, long after the visits are over.

If teams facing more than one collaboration barrier experience significantly greater obstacles to collaboration than teams without such barriers then, as argued above, working to establish a climate of psychological safety may be progressively more important for teams with multiple types of diversity.

In closing

The vignettes we opened with remind us that human beings often fail to act in their own or in their organization's best interest when small interpersonal risks loom large in the moment, and that communication with colleagues can be thwarted in mundane ways, despite shared aims and considerable motivation to achieve them.

Creating psychologically-safe environments is one way to overcome such incidences and unlock the enormous potential of team collaboration. Clearly, effective collaboration is a necessary component of team learning, and team learning is a critical component of performance. Despite the barriers to collaboration discussed here, team diversity can stimulate learning if the organizational context supports open communication. Psychological safety is a critical component of a context that moderates a team's ability to overcome barriers to collaboration.

In the end, psychological safety can enable team diversity to be better accessed and leveraged, reaping the benefits associated with diverse sets of skills, experience, knowledge and backgrounds in ways that would not be possible if team members were unwilling to speak up and listen carefully to each other. **R**





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