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How to create psychological safety in virtual teams

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HIGHLIGHTS:

- Virtual teams are less likely to develop psychological safety organically over time

- Teams should proactively invest effort to cultivate psychological safety virtually

- We need to connect as human beings to feel psychologically safe in a virtual world

- Many otherwise implicit rules must be discussed explicitly when working virtually

- Essential skills to enhance virtual teamwork can be learned and applied immediately

CAN TECHNOLOGY REPLACE THE COFFEE TALK?

Remote work and, with it, virtual teamwork have taken the world by storm as the coronavirus pandemic forced countries around the globe into lockdown. With Google, Microsoft, Uber, American Express, and Airbnb announcing to extend their work-from-home policies for the long term, it can no longer be denied that remote work is a trend that is here to stay. What does this mean for collaboration and teamwork? Or, more specifically, how can we develop virtual teams, so they can keep up with and ultimately exceed the performance they formerly delivered on-site?

In this study, we have taken what Google revealed to be the secret ingredient of their highest-performing teams in 2015, psychological safety, and investigated how to cultivate it in virtual teams. In a psychologically safe team, members feel safe to speak up without fear of being

rejected, which is mostly facilitated by frequent, spontaneous, and informal conversations. The construct has been around for decades but thus far has mainly been studied in 'ordinary', face-to-face teams. The problems that virtual teams experience, however, are entirely different. Conversations are suddenly less frequent, less spontaneous, and less informal. Team members feel isolated, disconnected from their teams, and often underappreciated. Trust and interpersonal relationships that were formerly built incidentally suddenly require our attention. The invisible glue of teamwork which used to grow naturally suddenly requires us to take conscious action.

The question at the core of this study is: how can we create psychological safety in virtual teams? We approached this question by investigating specific barriers and enablers through qualitative research and aimed to develop a practical guide for managers on how to cultivate psychological safety in their virtual teams.

The term psychological safety was coined by Edgar Schein in the 1960s, and extensively studied over the last three decades by Amy Edmondson. According to Edmondson's definition, a team is psychologically safe when all members feel safe to take interpersonal risks and feel valued by the team. Taking interpersonal risks can refer to speaking up about a problem, raising a difficult issue, or simply asking the team for help. While those are natural behaviours in psychologically safe teams, they may bring along the fear of shame or even ostracism in others.

Psychological safety is not to be mistaken with trust, however. One key differentiating factor, according to Edmondson, is that trust can only exist in the relationship between two people, while psychological safety permeates an entire group. What is more, trust is focused on whether *you* give another person the benefit of the doubt (in saying, "I trust you that you won't hurt me"), while psychological safety is focused on whether you perceive a *group of others* to give you the benefit of the doubt (in saying, "I feel safe to speak up here because nobody will hurt one another").

We refer to psychological safety as the 'invisible glue' of teamwork because not only Google, but countless other studies have concluded that it is a key driver of high-performing teams. It helps increase team performance both directly and indirectly by reducing team turnover and improving team learning, which refers to the ability to learn from failure. Further beneficial outcomes include improved team communication, greater knowledge sharing among team members, and enhanced attitudes towards teamwork.

Chances are that you, dear reader, have worked in a psychologically safe team before and by now know exactly what we are talking about. You may wonder, however, how did your team manage to create this 'invisible glue' unintentionally? Some factors that we already know help create psychological safety in face-to-face teams include supportive leadership behaviour (e.g. a leader that engages in learning themselves), high-quality relationships, both within the team and with external parties, and setting clear role expectations and objectives. What we do not know yet, however, is to what extent these findings also apply to virtual teams.

Virtual teams are typically defined as work teams that are geographically dispersed and that rely on technology as a primary tool of communication. Teams can either be partly virtual (i.e. at least one third of team members work in different locations) or fully virtual. As the extent of their 'virtuality' varies greatly (i.e. some are dispersed across the globe while others are merely spread across a single country), the specific challenges they face can vary greatly, too. Some challenges most virtual teams have in common, however, are the lack of face-to-face contact, ineffective communication, and difficulties with establishing trust and high-quality relationships.

For this study, we thus set out to identify the key challenges and enablers of psychological safety in virtual teams through a qualitative study. For our interview partners, we identified a range of corporations in diverse industries of different sizes and locations, to obtain a broad perspective on this topic. We contacted key informants to help us identify potential participants for the study. The final sample consisted of 16 virtual team members and leaders, who served in a wide set of functions such as Director of Communications & Marketing, Data Analytics Manager, and Senior Market Research Manager, to name a few. A key asset of the sample was that all interviewees had been part of their virtual teams prior to the pandemic already.

Interviews were centred around what factors participants felt had impacted the development of psychological safety in their teams. For that matter, the abstract construct of psychological safety was broken down into three tangible action-items: feeling comfortable to raise issues, feeling safe to ask for help, and feeling valued by the team.

Based on our interviews we first identified two common challenges that virtual teams seemed to be facing in relation to creating psychological safety:

1. Day-to-day processes took more time and effort
2. Team members communicated in 'bubbles'

Second, we learned that three enabling practices helped teams to overcome these challenges and actively create psychological safety:

1. Accepting virtual team challenges
2. Connecting as human beings
3. Discussing the rules of the game

As we will demonstrate in the following sections, these enabling practices are foundational for virtual teams' psychological safety and ultimately performance. Below, we deep-dive into each challenge and enabler one by one and present you with a set of practical recommendations to take away.

VIRTUAL TEAM CHALLENGES

The reason why we start by discussing virtual team challenges is that we would like to highlight the pain points of virtual teamwork before we present our solutions. What we learned from our interviews was that even high-performing virtual teams seemed to be prone to two specific psychological safety-related challenges.

Day-to-day processes take more time and effort. Almost all participants reported that their team's day-to-day processes took more time and effort when working virtually. One frequent example of this was asking colleagues for help:

"It's sometimes harder to reach out to people because they always look busy on Skype."

Virtually asking someone for help seemed to be harder for two separate reasons. First, participants often reported trying to solve problems on their own for longer because they did not want to look incompetent. Second, getting help took longer when the helper did not sit in the same room, as explaining the issue seemed a lot more complicated online or over the phone.

"It's easier if you can just take your problem, walk to the guy next door and talk it through."

Other examples of tasks that reportedly took more time and effort in virtual teams included building trust and relationships, reading someone's emotions, understanding cultural differences, and having conversations in general.

Team members communicate in 'bubbles'. The second challenge we identified was that

people tended to bond quickly with one or two colleagues and formed what we call 'bubbles'. Within these 'bubbles', two or three team members communicated way more often and more informally than they did with the rest of the team. Participants mostly reported bonding over things they had in common, such as speaking the same language or having the same cultural background.

This is problematic because as members of these bubbles, or subgroups, start to form trust and psychological safety, they risk making other team members feel excluded from their 'inner circle'. Prior research has further shown that team performance is best when communication between all team members is equally frequent and equally informal or, in the words of Alex "Sandy" Pentland, when communication is symmetric and balanced. When bubbles exist in a team, however, communication becomes increasingly unbalanced, as some talk way more frequently and more informally than others.

One participant described this challenge from her perspective of being excluded from such a bubble. In her partly virtual team, some members were located in the same office while she and others worked virtually.

"If a meeting finishes, for example, and they go and grab a coffee and discuss what we just said, I will never be able to know what they said. Unless they drop me a line or call me afterwards. So, I will miss the little nuances. And this can affect my work."

This extract illustrates how frustrating it can feel to be excluded from informal conversations of a bubble and how it can even affect performance. In this case, the commonality over which her colleagues bonded was their physical location. Participants further reported several other instances where team members bonded over their language, their seniority, or their prior experience.

Underlying mechanisms

As human beings are a social species, we all have the tendency to classify ourselves into groups based on perceived similarity. We automatically gravitate to those that we have something in common with, be it the same language, the same cultural background, or sitting in the same office, as in the example above. The problem here is that we tend to form in-groups with individuals with whom we have something in common and evaluate our in-group members more favourably than others.

This exact phenomenon can be observed in teams: in both face-to-face and virtual teams we

tend to bond more easily with those colleagues that are most like us. Nevertheless, it is particularly critical in *virtual* teams. Why? Because in face-to-face teams this effect is usually balanced out through random and/or spontaneous informal conversations that occur between varying constellations of team members. Be it by the water cooler, the coffee machine or when colleagues are leaving a meeting room together. In a virtual team, however, how often we speak to whom and about what is arranged more formally, and often under our deliberate control. We deliberately choose what meetings we arrange or attend, and how frequently we text, email, or call which of our colleagues. So, when we initially bond with a certain group of co-workers, interact more, and build increasing trust with them, we might forget about bonding with the rest of the team and unconsciously exclude them from our bubble. For those excluded team members, in turn, it becomes increasingly difficult to reach out to us from outside of our bubble, as they sense or observe our increasingly strong bond with those in our in-group. Even more problematic is that this separation of the group impedes knowledge exchange because if we, the in-group, have a question, we are more likely to ask the ones we are closest with for help rather than the one who would know best. Overall, forming these bubbles seriously impacts not only a team's ability to create psychological safety but ultimately also team performance.

ACCEPTING VIRTUAL TEAM CHALLENGES

The first part of the solution and thus the first enabler of psychological safety in virtual teams is consciously accepting the team's challenges. When we say "accepting" these challenges, we do not mean surrendering to their inevitability but rather proactively identifying the specific challenges the team is facing and building a willingness to address them as a team. We refer to this process as acceptance because it allows the team to mentally reframe what they may have considered challenging into an 'investment' into their team's future performance instead. The Latin root of the word *accept* means "to receive" as in "receiving a gift". As our data suggests, investing our time and effort wisely pays dividends in form of team wellbeing and performance. This investment is the breeding ground for virtually cultivating psychological safety.

We know for a fact that this will not happen overnight. Especially as the next two enablers, 'connecting as human beings' and 'discussing the rules of the game', will inevitably require time and effort. However, our data suggests that those teams who accept, sooner rather than

later, that they need to invest time and effort *early on* (to build high-quality relationships and to reach consensus and buy-in about the rules of the game) are the teams who reap the benefits of improved performance down the line. As one interviewee put it:

"Don't try to imitate normal teams. Instead, be very prepared of the limitations you have as a virtual team and proactively work on them. What worked well in my last company is that people recognized: while we are all apart, [...] we are also all in the same boat."

The opposite of acceptance is avoidance. It is not helpful to ignore the peculiarities of virtual teamwork: it feels very different because it *is* very different. That is why it is necessary to consciously accept that it will take an investment of time and effort before virtual team performance can reach its full potential. One example of a team that has accepted this challenge was provided by an interviewee who recently newly joined a large and fully virtual team:

"I think making connections might have actually been easier. Because people were expecting this gap. So, they kind of went "We know you're remote. So, we are going to reach out and set up random [one-on-one] meetings with you." [...] They were really making sure that I always had someone to reach out to."

This example demonstrates that when a team accepts that getting to know each other takes time and effort, they can actively address that challenge. In this case, the team could have easily ignored this problem and could have carried on as usual when the new team member joined, which is what many face-to-face teams tend to do. Instead, they realised that getting to know each other mattered and identified the lack of opportunities for informal, one-on-one conversations as a problem. They adopted a willingness to tackle this problem and proactively scheduled informal get-togethers with the new team member. As a result, our interviewee felt like connecting with her colleagues was even "easier" than it might have been face-to-face.

More generally, the process of acceptance can help us move from an avoidant mind-set (e.g. "I hate working from home") to a more constructive and curious one (e.g. "I don't like feeling stuck with my tasks and not knowing whom to contact for help. I wonder how we could change that"). This more constructive state of mind allows us to question our assumptions, be inquisitive, and search for creative solutions to our problems. This shift in perspective opens up new possibilities to virtually create psychological safety.

CONNECTING AS HUMAN BEINGS

The second enabler of virtual team psychological safety is connecting as human beings, or "seeing the human being behind the screen". This refers to getting to know our colleagues in their entire human complexity and building high-quality relationships with our team members.

"So, before I started working there [...] my boss called me a couple of times to have a personal chat. [...] I think one of the things that we could be in danger of losing [otherwise], is not to understand that the person on the other side has a life outside of the screen."

In virtual teams, the human factor can easily get lost. As communication is limited to different technologies and teams rarely get to meet face-to-face, team members can find it hard to fully understand what their colleagues are like outside of work. The reason we should care about our colleagues as human beings is building trust. Getting to know them individually helps us build trust and form productive relationships, which in turn will enable us to cultivate psychological safety as a team.

Through our interviews, we identified three concrete actions that can help virtual team members to connect as human beings:

- Demonstrate genuine interest.
- Share appropriate personal information.
- Create new experiences together.

Demonstrate genuine interest. To fully understand our colleagues, we must first ask the right questions and thereby demonstrate that we are genuinely interested in them as complex human beings. Remembering that – just like ourselves – our colleagues have needs and a life outside of work, can help us to create a genuine connection.

Almost all interviewees described that it made them feel valued and appreciated when their colleagues and especially their team leader demonstrated interest, by frequently reaching out one-on-one and checking how team members were doing:

"The leader of our team, she reaches out to everyone personally for one-on-ones. That really makes me feel valued and she really makes sure everyone in the team feels alright or, if not, what the reasons are and if she can help."

The first step is caring about our team members' wellbeing; the second step is reaching out to

demonstrate it. One-on-one meetings often allow for more personal and in-depth conversations, whether they are work-related or not. One interviewee further suggested to set up random one-on-one meetings to connect colleagues that rarely speak:

"So, there is this random-meeting-allocator, called Donut [in Slack] and every week, we get assigned one colleague at random to have a coffee break with. […] This is great to [see] what that colleague is doing, what they're struggling with, or how you can help them."

Just as before, we suggest investing your time and effort into demonstrating genuine interest. Taking the time to regularly check in with your colleagues helps cultivate psychological safety in the long-term as team members feel more understood and appreciated. Additionally, our interviews suggested that this exchange of interest increases motivation and work ethic for both parties, which likely impacts team performance in turn.

Share appropriate personal information. The second way to form connections at work is by intentionally sharing appropriate personal information that we think will help our colleagues make sense of who we are and why we behave the way we do. Sharing personal information can both be about work-related information such as strengths and weaknesses and non-work-related information such as hobbies and our living situation. A great example of why sharing non-work-related information can matter was given during one interview:

"I had a colleague that always showed up late to meetings. So, I reached out to my manager to ask her, you know: I want to say something about it, but I don't know her personal situation. Maybe she has a good reason for it. […] And she actually did."

Learning about her colleague's personal situation allowed our interviewee to make sense of her colleague's behaviour and to react more empathetically. Similarly, many other participants noticed that sharing stories with their team on how they dealt with the repercussions of the pandemic, such as having kids at home or sharing a home office space with their partner, had helped improve their team spirit.

Sharing personal information can require some emotional courage. Especially, when opening up is not the norm in an organisation's culture. In this case, it is often the team leader who – through their actions and words – can demonstrate that a certain degree of vulnerability is an act of strength (not weakness) and can encourage others to open up in appropriate ways, too:

"I think it starts at the top. If your manager comes in and says, you know: 'Obviously, I don't have all the answers, I'm gonna need your help.' […] That's a good thing because it

establishes a sense of vulnerability from leadership core. […] I think that goes a long way."

When teams manage to share appropriate personal insights in a roughly balanced way across all members, they can create a shared identity that not only spans a small bubble but the entire virtual team. Such conversations can help members uncover personal similarities and develop a sense of shared fate. This in turn helps them cultivate psychological safety.

Create new experiences together. Finally, valuable insights about each other can be gained by creating new experiences together that create bonding opportunities for team members. The most frequently mentioned experience, in our interviews, was meeting in person:

"It's just so much easier to talk to somebody or work together once you've seen each other [in person]. […] I feel much more connected. And I am way more motivated again, because I have faces and characters behind those names on Slack."

Why are face-to-face meetings so conducive to generating psychological safety? When we meet face to face, we literally use our five senses to process this interpersonal experience: we hear the other person, we see their body language, and perhaps we even get a whiff of their scent. We process this combined sensory input and, even if this largely occurs subconsciously, we literally "make sense" of other each other by being in each other's presence. Spending time together enables us to understand why others behave the way they do as we start grasping their underlying mindsets, motivations, and values. Thus, connecting as human beings refers both to the literal and the metaphorical meaning of the saying "you make sense to me".

Face-to-face teams with co-located team members often develop a palpable sense of feeling connected over time, simply by watching each other go through different experiences together. This sharing of experiences enables team members to make sense of others' drivers for action, which in turn enables team members to feel psychologically safe with each other.

In a virtual team environment, "making sense" of team members is harder because our capacity to process interpersonal data is dramatically reduced: while we may see our team members' faces, we may not always hear the nuances of what they say due to background noise, shaky internet connections, and our short attention span.

This is why virtual teambuilding activities are a helpful shortcut for creating high-quality human connections when meeting face to face is not possible. Several participants recalled virtual bonding moments with colleagues. Here are some examples of such bonding moments

that occurred either in designated virtual teambuilding events or from solving problems as a team:

"[We did] this online escape room, […] and that really got us closer."

"A lot of the personal connections that I formed with co-workers were over problems we solved together."

Both of these experiences involved some form of interaction that resulted in team members feeling "more connected" to each other.

The concrete activity should be chosen carefully and tailored to the team at hand and its goals. Not every type of experience will be suitable (or even possible) for every team. If some of your team members cringe at the mere thought of participating in a virtual pub quiz, then it may be wise to create an event that fits the culture or conversation tone better.

Overall, we suggest that the three key activities that can help virtual team members connect as human beings are demonstrating genuine interest in colleagues, openly sharing appropriate work and non-work-related personal information and, finally, creating new experiences together. All of these help create high-quality relationships among team members and thus cultivate psychological safety.

DISCUSSING THE RULES OF THE GAME

The third enabler we identified in our research was explicitly discussing what we call 'the rules of the game', or in other words, developing a shared understanding of *how* the team wants to work together. In co-located teams, this understanding and the resulting behavioural norms develop organically over time. When we sit in the same office as our colleagues, we can simply observe how people address each other, what topics tend to shape conversations, or at what time our colleagues usually leave the office. These implicit rules of interaction normally do not require our attention.

In a new virtual team, however, it can be difficult to grasp and align these behavioural norms. As most of us will have worked in more face-to-face teams than virtual teams thus far, virtual teamwork generally comes with more unknowns and uncertainty than traditional teamwork.

Additional interpersonal challenges arise as working virtually often requires us to make decisions in an information vacuum. We may not know how long to wait for an email response before sending a reminder or whether it is okay to take an hour-long lunch break.

Consensus over what 'the right way' to interact is, can take a long time to develop if you rely on implicit cues as you would in a face-to-face team. It is thus vital that virtual teams explicitly discuss these rules of the game early on and with the entire team involved:

"So, maybe as a general rule, in a virtual team you have to articulate these things that usually happen implicitly in physical teams. […] Talk, talk, talk. In a virtual environment communication is key. The more you communicate, the deeper the understanding."

In our interviews, three aspects of discussing the rules of the game were particularly important:

- Align use of tools with the team's needs
- Agree on shared goals and responsibilities
- Develop a common "code of conduct"

Align use of tools with the team's needs. First, virtual teams need to make sure that everyone feels comfortable using each tool and knows when to use which one. Some team members, for instance, might not feel comfortable sharing their backgrounds while working from home, as was the case on one interviewee's team:

"After we introduced [Microsoft] Teams, some people did not use their video feature until we showed them how to blur the background. […] Then they got comfortable because they just didn't want to share the room they were sitting in."

The participant led a team that was partly based in India. What might seem like a motivational problem at first, as they were hesitant to participate in video calls, turned out to be an issue of cultural differences and a lack of technical guidance. When they listened to the team's needs (not sharing views of their private rooms) and aligned the use of tools accordingly (blurring the backgrounds), participation increased. As our participant recognized:

"Someone who doesn't know the capabilities of [Microsoft] Teams, for example, won't be comfortable to join and participate [in meetings]."

As colleagues in virtual teams often have very different working contexts in terms of technology, work culture, work processes and even language, reaching a shared understanding of how they want to use their communication tools can be one way to align their contexts. Shared context, in turn, helps create psychological safety by increasing mutual understanding and establishing common behavioural norms.

Agree on shared goals and responsibilities. The second topic we found virtual teams need to explicitly discuss and agree on were goals and responsibilities. While this seems like an obvious aspect of teamwork, our data suggests that discussing more explicitly what the team is working towards, what each person contributes, and whom to ask if they have specific questions, can counteract the heightened sense of interpersonal uncertainty felt by many team members as they operate virtually. As one interviewee highlighted, this shared understanding of goals and responsibilities can guide a team through times of uncertainty "like a North Star":

"And then make sure that you have a great vision and a purpose, like a North Star for the team. Especially, in times of high uncertainty. And then make the roles and tasks even clearer than in a normal team, repeat them, make sure everybody understands them."

Goals and responsibilities are particularly important in virtual teams as they can provide some structure and stability to team members. A shared understanding of goals and responsibilities helps align everyone's expectations in terms of what the team is working towards and how. This helps to create a shared context and interpersonal safety because of the clarity it presents.

Develop a common code of conduct. The final aspect of discussing the rules of the game of virtual teamwork is developing a common code of conduct. Once team members are comfortable that technical tools are used in alignment with team members' particular needs and everyone has agreed on shared goals and responsibilities, team members need to reach consensus over how to engage with each other and explicitly discuss their preferences on matters such as communication frequency, meeting types, or working hours, just to name a few. One interviewee, for instance, noticed that his workflow was frequently disrupted by team members who spontaneously video-called him throughout the day; so, he spoke up and suggested a new rule:

"So, what I suggested we implement is just to send a quick chat message, say 'Hey, are you free?' before calling somebody. Because I think making those boundaries (…) is really important to make sure that we're not available off the top."

Just because teams generally prefer video over regular calls does not necessarily make it appropriate to video-call team members any time of the day. This is the reason why, in addition to a technical understanding and agreed goals and responsibilities, virtual teams also need an explicit code of conduct: to provide certain ground rules, structure, and boundaries to their interactions as a team and, thus, adding to the interpersonal predictability that is needed

to develop psychological safety.

To provide structure, even a meeting routine can be part of the code of conduct. As one interviewee recalled, her team created a set meeting routine because it functioned as an:

"important fix-point, especially for team members who struggled with organising themselves at home".

The types of rules a team's code of conduct can consist of can range from ground rules to behavioural norms to personal boundaries and even meeting routines. The rules will and should probably be completely different in every team as they need to be highly customized to team members' individual needs. What is most important is that team members reach a consensus, so everyone agrees with the rules and sticks to them.

Overall, we suggest that explicitly discussing the rules of the game helps virtual teams create psychological safety, especially if discussions centre around the appropriate use of tools, shared goals and responsibilities and a common code of conduct. Common behavioural norms and a shared context make team members' reactions more predictable and, thus, reduce interpersonal risk such as fear of embarrassment when speaking up and making virtual teamwork 'work'.

PRACTICAL RECOMMENDATIONS

Based on our insights, we argue that every virtual team can create psychological safety if its members are willing to invest time and effort in three specific ways. What follows is a practical guide for managers to transfer our findings to their virtual team reality. For an overview of these different activities, see Table 1 below.

Table 1

Practical recommendations for cultivating psychological safety virtually

Enabler	Practical recommendation
Accepting virtual team challenges	• Practice shifting perspective • Reframe problems as opportunities
Connecting as human beings	• Regularly check in with colleagues • Schedule informal meetings • Create a connection-toolkit • Share "user manuals" on how to work together • Schedule virtual teambuilding events
Discussing the rules of the game	• Offer technology training sessions • Set & review ground rules • Schedule a goal setting session

How to accept virtual team challenges

There are at least two distinct ways in which we can consciously cultivate our willingness to accept the challenges that working in virtual teams bring along; practicing a shift in perspective, and reframing problems as opportunities.

The first, shifting perspective, is a tried and tested mental technique for unlocking behaviour, strongly linked to increased wellbeing and performance at work (Flaxman, Bond, & Livheim, 2013). You can practice a mental shift in perspective by considering what a particular challenge looks and sounds like from a different vantage point. If you observe that team members communicate in 'bubbles' or subgroups in a virtual team, consider taking the perspective of such a team member, and actively imagine what the world looks and sounds like from their vantage point. For example, write down five conceivable reasons why someone in your team may not speak up as much during team meetings and instead only communicates with one or two other team members in private. Look over what you have written and consider shifting perspective towards *their* world view. Imagine how you would think or feel in a virtual team if those reasons applied to you. Write that down as well. Finally, shift perspective back to your own vantage point, and reflect on what you could say or do to

connect better with someone (in your team or more generally) for whom the reasons you have listed apply. Then act on the insights from this perspective shift.

The second technique we offer to generate a willingness to accept virtual team challenges is about reframing problems as opportunities. Consider the challenges associated with virtual teamwork as a 3-dimensional object with multiple facets, like a dice, for instance. Depending on which side of a dice you look at, it will present you with different opportunities. The same goes for virtual team challenges. Consider writing down a list of the specific problems your team is facing. Then look over the list and see which of these problems, when looked at from a different angle, could also present opportunities. When team members form bubbles, for instance, that may be about an underlying need to form interpersonal relationships and have informal conversations with colleagues. What could be a way to take advantage of that need? One opportunity could be to proactively connect team members that rarely speak, to satisfy their need to have informal interactions, and to spread communication more equally throughout the team. What other perspectives could enable you to say "yes" to the challenges you face? Imagine what would happen if a particular challenge were not to be resolved. What new opportunities would this present? How could a challenge be viewed in a wider, longer-term context? Make sure you round off this mental exercise with creating an action plan based on the contrasting perspectives you identified earlier.

How to connect as human beings

Our practical tips below present concrete suggestions for how virtual team members can connect as human beings. First, we suggest regular check-ins with colleagues or, in other words, actively reaching out to see how colleagues are getting on with their work and whether they need help. Try to ask personal questions that are both work- and non-work-related (e.g. How was your weekend? How are you getting on with your workload at the moment?).

Second, make time to schedule informal meetings, such as face-to-face meetings, virtual one-on-ones, virtual coffee breaks or after-work drinks, as well as virtual teambuilding events, taking into account the organisation's culture and ways of working.

Third, consider creating what we call a connection-toolkit for the team, to help stimulate deeper conversations and more high-quality relationships (e.g. during informal one-on-one calls). This toolkit could be made available to team members, so they can pick individual topics or questions for one-on-one calls. In this way, conversation culture may shift towards topics that foster creating high-quality connections. The toolkit should cover questions in the

areas of personal life, working context, individual preferences for ways of working, and what is important and valuable to individuals in their contexts. Some example questions include: What are your hobbies or interests outside of work? Where do you currently work from and what is that like for you? What is an important priority for you right now?

Another activity we suggest is writing and exchanging "user manuals": sharing insights into how individual team members want to be handled on an everyday basis, as well as when problems come up. The "user manual" idea was first featured in a 2013 *New York Times* article. It is a playful way for people to uncover how their colleagues prefer to work and be treated. Just as we read a user manual to understand how our coffee machine works, why not read each other's "user manual" to understand what makes each of us tick and how we can function as a team. Questions to include could be, for instance, "what drives me crazy", "what is the best way to communicate with me", "what I most need when I'm stressed", and the like. A further advantage of this activity is that team members are invited to reflect and, thus, become aware of their own likes and dislikes while writing their individual "user manual".

Finally, make sure to schedule virtual team building events or other opportunities for creating shared experiences together. Examples include Virtual Reality (VR) minigolf, a virtual escape room, virtual board games or a virtual pub quiz.

How to discuss the rules of the game

To explicitly discuss the rules of the game in a virtual team, we suggest three specific activities: offering technology training sessions, scheduling a goal-setting session, and setting (and regularly reviewing) ground rules in the team.

First, we recommend having the most technology-proficient team member explain software tools and functions to other team members. While this may not seem necessary in teams of technology-savvy millennials, it does not hurt to make sure that everyone on a team really has the same level of understanding of every single tool that is used. A good example was the background-blurring function during video calls, the explanation of which facilitated team meetings for one of our participants. Such sessions can be voluntary, focusing on those who want to expand their knowledge in this regard.

Second, holding a designated goal-setting meeting can clarify a team goal as well as roles and responsibilities. Have members repeat their responsibilities for themselves again (especially if

these are on top of their formally defined role), document everything in writing and revisit goals and responsibilities regularly so that a genuinely shared context can emerge.

Third, create a set of rules of engagement and boundaries together as a team and make it a habit to regularly review them. Informal one-on-one check-ins can be a good opportunity to uncover any pain points that may then be translated into a new team rule. Examples of rules include setting a specific time for lunch breaks, switching team members' status to "away" while they are on a break, or clarifying how decisions are captured so all team members are kept in the loop. While doing so, it can also help to uncover what underlying assumptions colleagues may hold (about each other, about the team as a whole, or about the overall work context) that may need to be addressed and/or changed over time.

In conclusion, if you only take one thing away from this study, we hope it is the fact that creating psychological safety and, with it, virtual teamwork as such can be learned. As virtual teams are unlikely to disappear anytime soon, this really is good news. If you currently find yourself in a less-than-ideal virtual team, please remember how many physical teams you have likely been part of before teamwork felt natural to you. The same pattern also applies to virtual teamwork. The only difference is that you need to focus more deliberate attention on learning how to make a team feel psychologically safe when it is virtual, because you cannot rely on it to emerge organically over time. We may not excel at developing psychological safety in a virtual world straightaway, but we hope that this article has opened up new avenues for learning about this important team capacity and will contribute to making more teams succeed in a virtual world.

Suggested readings:

For a comprehensive overview and synthesis of the literature on psychological safety, including definitions, outcomes, antecedents, and more see Newman, A., Donohue, R., & Eva, N. (2017). Psychological safety: A systematic review of the literature. *Human Resource Management Review*, *27*(3), 521–535. To gain a deeper understanding of the original definition of psychological safety as well as the psychological safety scale, an adapted form of which formed the base of this research, refer to Edmondson, A. C. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, *44*(2), 350–383.

To find out more about the Google study that found psychological safety to be a key success factor of their high-performing teams see Rozovsky, J. (2015, November 17). The Five Keys to a Successful Google Team. re:Work. Retrieved from: https://rework.withgoogle.com/. For insight on why balanced communication is so crucial to team performance, and a large-scale experiment using advanced communication tracking tools see Pentland, A. S. (2012). The new science of building great teams. *Harvard Business Review*, *90*(4), 1–20.

For an in-depth analysis of conflict in virtual teams and related findings on shared identity, shared context and spontaneous communication see Hinds, P. J., & Mortensen, M. (2005). Understanding Conflict in Geographically Distributed Teams: The Moderating Effects of Shared Identity, Shared Context, and Spontaneous Communication. *Organization Science*, *16*(3), 290–307. More information on the relation of boundary work, which is referred to as "discussing the rules of the game" here, to psychological safety in face-to-face teams, see Faraj, S., & Yan, A. (2009). Boundary Work in Knowledge Teams. *Journal of Applied Psychology*, *94*(3), 604–617.

For an overview of techniques to help unlock 'rigid' behaviour using the third and latest wave of scientific behaviour analysis and therapy, including research linking perspective shift practices with increased wellbeing and performance at work, see Flaxman, P. B., Bond, F. W., & Livheim, F. (2013). *The mindful and effective employee. An Acceptance & Commitment Therapy Training Manual for Improving Well-Being and Performance.* New Harbinger Publications, Oakland, CA.

The "user manual", a technique that team members can use to improve team communication by writing up and sharing insights into what makes them tick and how others can most effectively work with them, was first mentioned by Ivar Kroghrud, co-founder and C.E.O. of QuestBack, a feedback management consultancy, in an interview with Adam Bryant, published in *The New York Times* on 31/03/2013.