Psychological Safety

An Important Factor for Team Creativity.

Psychological safety has a major impact on team creativity. Our white paper sheds some light on this important creativity factor.

Additionally, a selection of concrete measures to promote psychological safety and thus team creativity are presented here.

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Psychological Safety: A Fundamental Factor for Team Creativity

You may have experienced situations like this: You are in a team meeting together with your colleagues and you are exploring ideas on how to solve a complex problem. But the brainstorming session doesn't want to get rolling. People are reticent. The atmosphere is tense. Uncertainty prevails and there are hesitations to speak.

Both science and practice demonstrate that psychological safety in a team is a fundamental determinant of creativity.

«Effective teamwork happens best in a psychologically safe workplace». (Edmondson 2018: XV)

The following questions are explored in this white paper:

- What is to be understood under the terms team creativity and psychological safety?
- What is the relationship between team creativity and psychological safety?
- What can be done to promote psychological safety and thus team creativity?

The goal is to present to both, team members and leaders, possible measures to foster psychological safety and thus contribute to team creativity as well as to boosting the potential for sustainable innovation in the business context.

First, we highlight the concept of team creativity. Second, the key factor of psychological safety is introduced. Finally, we address concrete measures to promote psychological safety and thus team creativity.

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1. Team Creativity

Team creativity is essential for organizational success. Nowadays companies and organizations are faced with high challenges that can only be solved by working together in teams. Teams are crucial not only because they bring together a rich mix of skills and backgrounds, but more importantly because working in teams creates results that are not achievable when working alone.

«I truly believe that no one ever creates success alone. Everyone needs a positive team with supportive people at their side».

(Gordon 2007: IX)

Creativity and innovation are interconnected. Creativity is most often perceived as a preliminary stage to innovation, as a phase of idea generation, while innovation is seen as the realization process of these ideas (cf. e. g. Hotz-Hart & Rohner 2014). However, creativity plays a role in all phases of the innovation process. Consequently, Anderson & al. (2014: 1298) suggest an integrated definition of creativity and innovation:

"Creativity and innovation in the workplace are the process, outcome, and the products of attempting to develop and implement new and improved ways of operating. The creativity phase of this process refers to the generation of ideas, and innovation addresses the subsequent phase of translating ideas into better processes, practices, or products. Creativity and innovation can occur at the level of the individual, the working team, the organization, or several of these levels together, but always result in identifiable benefits at one or more of these levels of analysis".

The Focus of this white paper is creativity at team level. Palmer's definition (2016) is for us one of the theoretical cornerstones. The author has consulted numerous works by experts in creativity research (namely Barron 1955, Amabile 1988, Feist 1998, Simonton 1999, Sternberg & Lubart 1999, and Plucker & al. 2004a or 2004b). According to Palmer (2016: 366), creativity is to be understood as:

"The interaction of intelligence, expertise, character traits, and motivation as individual dispositions with process stage-dependent requirements and environmental conditions through which an individual or group produces a noticeable product that is both novel and useful in a given social context".

Team creativity is a multidimensional process. Numerous underlying components are involved. Research has identified many outstanding factors of team creativity. Chompunuch & al. (2019) have undertaken a systematic literature review of the concept of team creativity. Out of the 77 papers analysed, 15 important dimensions of team creativity emerged (see Figure 1). These include psychological safety.

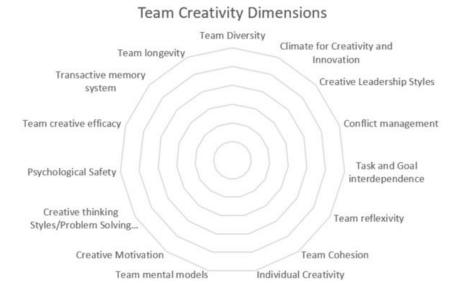


Figure 1: Team Creativity Dimensions according to Chompunuch & al. (2019: 12)

Working together as a team requires good interpersonal relationships. In the absence of any sort of trust, psychological safety, and respectful environment, employees may be unwilling to speak up or admit mistakes for fear of sanctions or negative consequences to their image, status, or career (Kahn 1990, Edmondson 2002, Carmeli et al. 2009). A psychologically safe environment increases collaborators' courage to take risks, to talk about difficulties or mistakes, to ask for help, and to be creative (Bajulaz 2012).

«The fearless organization is one in which interpersonal fear is minimized so that team and organizational performance can be maximized in a knowledge intensive world» (Edmondson 2018: XV)

2. Psychological Safety

Psychological safety was first explored in the 1960s by organizational research pioneers (such as Schein & Bennis 1965). It experienced a renaissance in the 1990s that continues to this day (e. g. Kahn 1990, Edmondson 1999, 2002, 2003, 2004, 2018, Carmeli 2007, 2009a, 2009b, Bajulaz 2012). The interest in this concept is attributable to the growing "knowledge economy" and the importance of learning and innovation that goes with it in today's business context (Edmondson & Lei, op. cit. or Edmondson 2018).

«Psychological safety is essentially about reducing the interpersonal risks that unavoidably accompany any job, such as uncertainty and fear of change. » (Schein & Bennis 1965) Psychological safety can therefore facilitate the voluntary contribution of ideas and actions to a collective endeavour (Edmondson & Lei 2014). For example, it helps to explain why employees share information and knowledge (Collins & Smith 2006, Siemsen & al. 2009), come up with proposals for organizational improvements (Detert & Burris 2007, Liang et al. 2012), and take the initiative to develop new products and services (Baer & Frese 2003). Extensive research suggests that psychological safety empowers teams and organizations to learn (Bunderson & Boumgarden 2010, Carmeli 2007, Carmeli & Gittell 2009, Edmondson 1999, Tucker & al. 2007) and deliver performance (Carmeli & al. 2014, Collins & Smith 2006, Schaubroeck et al. 2011).

2.1 Definition

What is to be understood under the term psychological safety?

Teamwork takes place in increasingly complex, physical as well as virtual networks. The knowledge-based industry, as well as the cooperation in international, -cultural, -disciplinary teams, are increasing drastically. These trends lead to new working relationships in which it is expected of managers and employees to be willing to take interpersonal risks, integrate different perspectives, exchange ideas and information, and collaborate across tangible, virtual, and conceptual boundaries to achieve common goals. Psychological safety is a key factor in social processes (Tang 2019: 7). It describes our perception of the consequences of the interpersonal risks we take in a particular context, such as in the workplace (see e. g. Edmondson 1999 or Edmondson & Lei 2014). Edmondson (1999, 2002, or 2018) describes psychological safety as:

"The perception of the consequences of the interpersonal risks we take in a working environment. It consists of self-evident beliefs about how others will react when you take a risk, such as asking a question, asking for feedback, reporting a mistake, or suggesting a new idea (Edmondson 2002: 6)".

Under "interpersonal risks" the author lists 4 specific threats to which people are exposed in the working context. When we dare to step forward, we run the risk of being perceived in the following ways (2002: 3-5):

- 1. As "ignorant": For example, the questions we ask can be interpreted as a sign of lack of knowledge.
- 2. As "incompetent": when, for example, we admit our mistakes, ask for help, or accept the high probability of failure.
- 3. As "negative": when, we are critical for example, always questioning performances and decisions.
- 4. As "disruptive": This is when we "rob" others from their time or even put their patience to the test.

An environment that guarantees psychological safety, minimizes these risks (Bajulaz 2012). It fosters openness, respect, and trust. According to Kahn (1990), psychological safety empowers employees with mutual trust.

"Workplaces characterized by candor can offer immense benefits for creativity, learning, and innovation."

(Edmondson 2018: 124)

2.2 The Impact of Psychological Safety on Team Dynamics and Creativity

Many studies (e.g. Edmondson & Lei 2014 for a detailed literature review) attest the impact of psychological safety on team dynamics. It is commonly seen as a performance and learning moderator. A psychologically safe environment has for example a positive effect on the following aspects:

- Interpersonal relationships (Edmondson 1999)
- Fear and stress reduction (Agarwal & Farndale 2017)
- Risk willingness (Choo & al. 2007)
- Readiness to learn and learning habits (Schein 1996, Choo & al. 2007)
- Motivation to share information (Siemsen & al. 2009)
- Commitment to the company, the organization, or institution (Dubé 2020)
- Accomplishment in the workplace (Yang & al. 2019)
- Divergent thinking, creativity, and innovation (Edmondson 2004; Nembhard & Edmondson 2006; Choo & al. 2007; Kark & Carmeli 2009; Gong & al. 2012; Zhou & Pan, 2015; Castro & al. 2018; Wang & al. 2018; Tu & al. 2019; Chen & al. 2020; Yang & al. 2019).

Edmondson & Lei (op. cit.) further describe the leadership style, committed HR practices, the promotion of diversity, and the interdependence in and among teams as well as social interaction as moderators of psychological safety and thus team creativity. According to scientific research (see Tu & al. 2019 for an extended typology), in terms of leadership, the following styles, for example, are positively associated with psychological safety:

• "Humble Leadership" (Wang & al. 2018: 5): "Humble leaders concede their mistakes, are open to new ideas and suggestions, actively seek feedback, tend to develop high-quality Leader-Follower Relationships and value the strengths as well as contributions of followers".

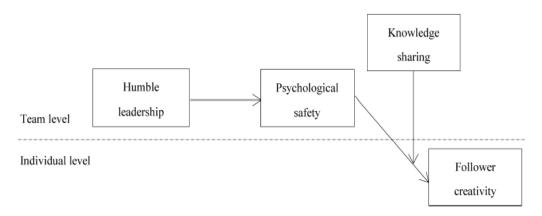


Figure 2: Humble Leadership as a Creativity Moderator (Wang & al. 2018: 3)

For competence development around this leadership style, which focuses on strong interpersonal relationships, openness, and trust, the publications by Schein & Schein (2018) can be recommended: *Humble Leadership. The Power of Relationships, Openness, and Trust*; see also Edmondson (2018): *Fearless Organisations. Creating Psychological Safety in the Workplace for Learning, Innovation, and Growth*.

"Ethical Leadership" (Tu et al. 2019). This style is understood as follows: "The demonstration of normatively appropriate conduct through personal actions and interpersonal relationships and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making" (Brown & al. 2005: 120).

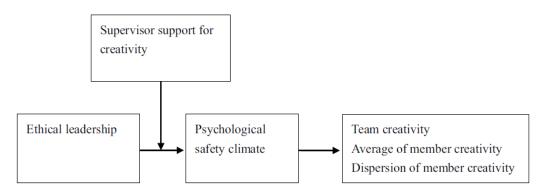


Figure 3: Model of the impact of ethical leadership on psychological safety and team creativity (Tu & al. 2019: 552)

"Participative Leadership" (Chen & al. 2019). The Participative Leadership style implies that employees are involved in the decision-making and problem-solving processes. Team members are encouraged to think critically and challenge the status quo. Likewise, participative leaders encourage employees to interact, share information, identify problems, look for ways to improve, propose alternatives and come up with innovative ideas (Chen & al. op. cit., Miao & al. 2014).

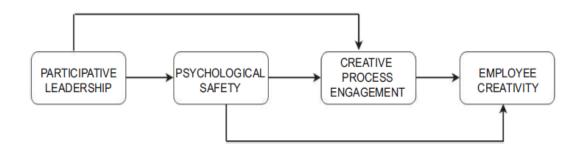


Figure 4: Model of the impact of participative leadership on creativity (Chen & al. 2020: 742)

Creating a psychologically safe climate to promote team creativity places high demands on leaders and group members. Castro & al. (2018) underline the importance of (active) listening, notably by management towards employees. For Yang & al. (2019), closeness to employees, care and consideration are of key importance.

In the next and final chapter, we look at recommended practices that enhance psychological safety and team creativity.

3. Tools to promote team creativity

3.1 Victory-Model



"If you can dream it, you can do it!" – Walt Disney (e.g., Cardinal, 2001; Gilson & Shalley, 2004; Hülsheger et al., 2009; Rickards et al., 2001; West, 1990; West & Anderson, 1996)



Ideas are the basis of creativity and innovation (e.g., Coskun et al., 2000; ; Mumford et al., 2001; Paulus & Brown, 2003; Paulus et al., 2006; Santanen et al., 2004)



"Creativity is just connecting things." – Steve Jobs (e.g., Drach-Zahavy & Somech, 2001; Root-Bernstein & Root-Bernstein, 1999; Taggar, 2002; Weisberg, 1993, 2006)



"You become what you believe." – Oprah Winfrey Self-fulfilling prophecy (Merton, 1948); Pygmalion-Effect (e.g., Redmond et al., 1993; Tierney & Farmer, 2004).



"If at first the idea is not absurd, then there is no hope for it." – Albert Einstein (e.g., Barron, 1963; Dewett, 2007; Glover & Sautter, 1977; Ma, 2009)

Denness

Openness is one of the most important predictors or moderators of creativity (e.g., Amabile et al., 1996; Feist, 1998; Ma, 2009; Shin & Zhou, 2003; Zare & Flinchbaugh, 2019)



"TEAM means together everybody achieves more". Committment, shared responsibilities, common goals (e.g., Cohen & Bailey, 1997; Hackman, 1990); trust, autonomy, freedom (e.g., Deci et al., 1989; Scott & Bruce, 1994); collaboration, communication, trust, psychological safety, support, creative leadership (e.g., Hülsheger et al., 2009; Reiter-Palmon et al., 2012)

Figure 5: Summary of the key factors of team creativity - Victory Model according to Tang (2019: 4)

The model is well-founded from a theoretical and practical point of view. It is a short, visual, and informative reflection tool, orientation guide, and source of motivation for leaders and team members. According to the Victory Model, the seven factors of vision, idea generation, combination, team, "Yes-I-Can", risk-taking and openness are at the heart of collective creativity. The reference article by Tang provides additional ideas for working on these factors, especially in the context of team training. Below are some examples.

- Vision: In a training framework, for instance, the co-design of a name, logo, and slogan for a team.
- **Openness:** Invite participants to engage with the "3Hs":
 - Head (work on the cognitive openness, imagination, originality; for example via artworks);
 - Heart (emotional openness, curiosity, interests, etc.);
 - Hand (behaviour, actively trying new things).
- **Risk-taking:** Entice team members out of their comfort zone through activities (e. g. communication challenges for which no linguistic interaction is allowed).
- Yes-I-Can Mindset: During the training clarify the team's expectations in terms of creativity; show that every individual is creative (cf. Barnett 1953).
- **«Ideation» and «Combination»:** For example facilitate "Brainwriting" or the use of Creative Thinking tools such as the "6 Thinking Hats" (De Bono 1985/2000) and, in addition, enable regular meetings for exchange in formal and informal contexts.

«Innovations, whether major or minor, whether of private or public significance, and whether of ephemeral or lasting utility, are constantly being made. Everyone is an innovator, whether popular definitions allow him that recognition or not.» (Barnett 1953: 9)

3.2 Edmondson's Leader's Toolkit

Another helpful overview of recommended practices, especially for leaders, can be found in Edmondson (2018).

In her publication (2018), the author published her "Leader's Toolkit for Psychological Safety". This toolkit, which Edmondson summarises in tabular form, is very clear, understandable, and thus self-explanatory. We, therefore, limit ourselves here to replicating the table (Edmondson 2018: 159) and refer the readers to the already mentioned, recommended book.

Category	Setting the Stage	Inviting Participation	Responding Productively
Leadership tasks	 Frame the Work Set expectations about failure, uncertainty, and interdependence to clarify the need for voice Emphasize Purpose Identify what's at stake, why it matters, and for whom 	 Demonstrate Situational Humility Acknowledge gaps Practice Inquiry Ask good questions Model intense listening Set up Structures and Processes Create forums for input Provide guidelines for discussion 	 Express Appreciation Listen Acknowledge and thank Destigmatize Failure Look forward Offer help Discuss, consider, and brainstorm next steps Sanction Clear Violations
Accomplishes	Shared expectations and meaning	Confidence that voice is welcome	Orientation toward continuous learning

 Table 7.1
 The Leader's Tool Kit for Building Psychological Safety.

Figure 6: Edmondson's Toolkit (2018: 159)

3.3 The Team Creativity Navigator®

The Team Creativity Navigator[®] (TCN) is a new assessment and competence development tool for teams and leaders.

The tool supports the above-mentioned leadership styles (Humble, Participative, and Ethical Leadership). The TCN is a scientifically proven tool. It covers all 15 dimensions (Chompunuch, Chapter 1), which, based on the current state of research, must be taken into consideration for the assessment of team creativity. For simplicity and handiness' sake, for the TCN the 15 dimensions have been grouped into five:

- Idea generation
- Diversity
- Environment
- Collaborative Culture
- Vision & Goals

One can find sub-factors under each dimension, that are all significant for team creativity and provide orientation in terms of developing competences as well as in the action areas of managers and teams.

The aspect of psychological safety is classified in the "environment" dimension. Creative processes are strongly context-bound. Creativity needs conducive environmental conditions. Not only the "tangible", physical but also the "emotional", the psychological climate of cooperation must be suitable for team creativity to unfold.

The TCN is based on the self-assessment of the team members. The tool takes the form of an online questionnaire coupled with a team-specific report. It was jointly developed by HSLU,

HEIG, and seven private companies as part of a project supported by Innosuisse (Swiss Agency for Innovation Promotion).

In a nutshell, the Team Creativity Navigator[®] supports:

- Assessment of creativity in teams
- Identification of strengths & fields of action
- Assessment of team culture and atmosphere
- Development of a creativity culture for the team and individual levels
- Combination possibility with Innovation Challenges
- Solution-oriented, tailor-made training seminars (for team and project managers).

In the framework of the above-mentioned research and development project, not only the Team Creativity Navigator[®] was developed. The partner consortium has simultaneously designed two further assessment tools for a) creativity in the whole organization (Organizational Creativity Navigator[®]) and b) individual creativity (Individual Creativity Navigator[®]).

For any further inquiries and/or testing the Team Creativity Navigator[®] - as well as the Organizational Creativity Navigator[®] and the Individual Creativity Navigator[®] - do not hesitate to contact us (<u>pia.stalder@heig-vd.ch / pia.stalder@bfh.ch</u>).

4. Recommendations

Contact: pia.stalder@heig-vd.ch / pia.stalder@bfh.ch

Recommendation 1



Team Creativity Navigator[®] (TCN) (*HSLU, HEIG-VD & al. 2021)*

Get to know the creative potential of the team better and try out the TCN (cf. *supra*) to identify strengths and possible areas of action. https://heig-vd.ch/rad/instituts/iide/projets-iide/diversitecreativite-et-innovation-creativity-navigator

Recommendation 2



Victory-Modell (Tang 2019)

Share the Victory Model (cf. *supra*) with the team and use it as a guideline to action.

Leader's Toolkit for Building Psychological Safety (Edmondson 2018)

Recommendation 3



As a leader, rely upon Edmondson's table (cf. *supra*).

Recommendation 4



Undergo further training in workplace mentoring

(Understood as Consulting, Coaching, and Training)

Company mentors are specialists and experienced managers who work in the business context as counselling, coaching, and training experts. Certified company mentors have developed competences that are fundamental for creating a psychologically safe working environment: observing, questioning, active listening (Dubach 2021), and promoting development processes (of individuals and groups). They have a large pool of methods at their disposal. For Switzerland see (e.g.):

https://www.bp-mentor.ch/ and https://www.coachingzentrum.ch/

Recommendation 5



Read to (better) situate yourself. See the bibliography and especially: Schein & Schein (2018) and Edmondson (2018).



Measure and develop psychological safety using ICQ Global's Growth Zone[™] Tool.

ICQ Global is a multi-award-winning people development organization providing coaches and business clients with innovative solutions to level up individual and group collaboration by assessing, visualizing, and optimizing the 3 invisible forces that make or break a team: psychological safety, motivation, and cognitive diversity.

Growth requires the right amount of friction within and between people who feel psychologically safe and motivated. Assessing those two invisible forces is crucial. That is what the Growth Zone[™] Tool is designed for. Based on 8 specific subcategories it not only enables individuals and teams to see how they feel and score, but also to address the root cause of the problems.

More information under: https://icq.global/ and https://icq.global/psychological-safety/

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