

Understanding the “COR” of Psychological Safety in Teams: Toward a Reconceptualization and Integrative Model

ABSTRACT

Scholars have utilized the construct of psychological safety to investigate a multitude of work-related phenomena. In this article, I review past research in an effort to highlight the lack of a comprehensive conceptual understanding of the construct. Building on the Conservation of Resources (COR) theory, I reconceptualize psychological safety as a belief about a resource-engaging ecology that enhances the ability of individuals to accumulate resources and hence shapes their resource investment decisions. For this, I advance a three-stage model that delineates the underlying motives and mechanisms for creating, maintaining, and strengthening a climate of team psychological safety. Further, I detail how psychological safety influences processes and outcomes in teams and outline the dynamic nature of the construct over time. I then discuss implications for future research and limitations.

Keywords:

Groups, Top Management Teams and Executives; Performance and Effectiveness; Theoretical/
Conceptual

INTRODUCTION

The importance of teams to professional organizations in today's business world is widely recognized (e.g., Edmondson & Lei, 2014). In this context, psychological safety is widely attributed a central role in enabling and improving team effectiveness (e.g., Mathieu, Gallagher, Domingo, & Klock 2019). The construct describes individuals' perceptions of the safety for interpersonal risk taking (Edmondson, 1999).

While research on the construct in management- and organizational literature has proliferated over the past decades, scholars have mainly focused on empirical, micro-level endeavors (Newman, Donohue, & Eva, 2017). That is, studies investigated singular phenomena in predefined research settings utilizing an array of theories to motivate highly specific and context-dependent hypotheses. In contrast, conceptual research aiming at improving our theoretical understanding of the construct by working toward a more encompassing, macro-level view remains absent.

The main purpose of this article is hence to utilize the Conservation of Resources (COR) theory (Hobfoll, 1989) to further specify *how* and *why* the construct influences teams at work. The nature of COR theory renders it particularly suitable for this endeavor since it is a broad-based theory (Hobfoll, 2001) capable of motivating comprehensive propositions and reasonings (Hobfoll, Halbesleben, Neveu, & Westman, 2018). Further, it is adjacent to several other theories anchored in psychological safety research (e.g., Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014).

With its application, I build on and answer the scholarly calls by Newman and colleagues (2017: 529) and Hobfoll and colleagues (2018: 111) for contributing toward a “more holistic understanding of the underlying processes through which psychological safety develops and influences workplace outcomes” and detailing an environment “for sharing and fostering resources

and limiting the crossover of stressors and strains”, respectively. I contribute to the current body of literature in three ways.

First, I advance the application scope of COR theory. Even though the theory has previously been used to explicate relationships on the micro-level (e.g., Marx-Fleck, Junker, Artinger, & van Dick, 2021; Singh, Shaffer, & Selvarajan, 2018), its application to the entirety of a construct is, to my knowledge, unprecedented. Not only does this might broaden the evidence for the theory’s general explanatory power, but also, it represents a step towards creating tighter links between COR theory and related models addressing resource exchange, such as the crossover model (Bolger, DeLongis, Kessler, & Wethington, 1989; Westman, 2001).

Second, I contribute toward specifying the notoriously vague and broad concept of resources (Hobfoll, 2001). I achieve this by proposing the concepts of key resources and appropriate resources and by presenting a reconceptualization of psychological safety as a belief about a resource-engaging ecology.

Third, I present a macro-level model of team psychological safety in work environments. For this, I shed light on the underlying motivational mechanisms that guide individuals’ resource investment decisions, thereby delineating how an environment of psychological safety might be created and maintained, why it is so effective in setting teams up for success, and why it can entail a “dark side”. In this context, I offer a temporal perspective on the effects of the construct by emphasizing the reciprocal, dynamic nature of teams.

The structure of this article is tripartite. In section one, I review, structure, and summarize past research efforts on psychological safety. In section two, I reconceptualize psychological safety and develop an integrative, COR-based model of team psychological safety. To underpin my argumentation, I draw references to extant empirical literature. In the last section, I discuss implications for future research and limitations of the model.

PAST RESEARCH ON PSYCHOLOGICAL SAFETY

Psychological safety is most commonly defined as a “shared belief that the team is safe for interpersonal risk taking” (Edmondson, 1999: 354). On the one hand, research on the construct is increasingly converging as a result of intense empirical efforts. This includes, for instance, the measurement approach. While many different scales have been developed (e.g., Baer & Frese, 2003; Liang, Farh, & Farh, 2012), scholars investigating the construct at different levels of analysis and across different cultures increasingly converge to Edmondson (1999) as the gold standard of operationalization. Similarly, the levels of analysis that can be meaningfully observed seem to have been identified. Even though there were attempts to capture psychological safety at the organizational-level (e.g., Carmeli, 2007; Higgins, Dobrow, Weiner, & Liu, 2022), research of the past decade has mainly focused on examining psychological safety at the individual- and team-level of analysis. In addition, continuously proliferating research have led to an increasingly clear picture of the antecedents, mediating effects, and outcomes of the construct. Antecedents especially pertained to variables adjacent to leadership (e.g., leadership styles, de Hoogh, Greer, & den Hartog, 2015; leader affect, Liu, Tangirala, Lam, Chen, Jia, & Huang, 2015; leader behaviors, Coutifaris & Grant, 2022), employee behavior (e.g., knowledge hiding, Jiang, Hu, Wang, & Jiang, 2019; helping, Lin, Koopmann, & Wang, 2020; conflict, Brown, Vogel, & Akben, 2022), team characteristics (e.g., diversity, Tang, Nadkarni, Wei, & Zhang, 2021; tenure, Koopmann, Lanaj, Wang, Zhou, & Shi, 2016; social capital, Gu, Wang, & Wang, 2013), and organizational characteristics (e.g., politics, Li, Wu, Liu, Kwan, & Liu, 2014; resources, Singh et al., 2018; diversity climate, Singh, Winkel, & Selvarajan, 2013). From an outcome perspective, the construct is commonly viewed as a particularly important influencing factor of voice and silence behavior (e.g., voice and silence, Sherf, Parke, & Isaakyan, 2021; group voice, Deng, Leung, Lam, & Huang, 2019; defensive silence, Brinsfield, 2013), engagement-related aspects (e.g., thriving, Jiang et al.,

2019; work engagement, Chughtai & Buckley, 2013; turnover intentions; Chen, Liao, & Wen, 2014), learning (e.g., internal and external learning, Bresman & Zellmer-Bruhn, 2013; team learning, Ortega, van den Bossche, Sánchez-Manzanares, Rico, & Gil, 2014), and creativity- and performance (e.g., employee creativity, Jiang & Gu, 2016; team creativity, Lee, Choi, & Kim, 2018; job performance, Li & Tan, 2013).

On the other hand, the scholarly discourse is less advanced and concurring regarding the understanding of the underlying mechanisms of psychological safety. As already criticized by Newman et al. (2017), this is a consequence of lacking conceptual contributions in the field. Though different theoretical lenses were utilized in past literature, their purpose was to merely explicate micro-level and context-specific influences between pre-selected constructs and variables in empirical research. Especially theories lending from signaling-like mechanisms were prominently utilized in the literature to shed light on effects of transference and adoption.

On an individual-level, Xu, Qin, Dust, & DiRenzo (2019), for example, examined the relationship between supervisor-subordinate congruence, psychological safety, and voice behavior. For this, they drew from, among others, signaling theory to argue that the explicit and implicit transmission of signals from the supervisor to the employee triggers a process of social learning and sensemaking which ultimately forms employee behavior. A similar line of argumentation was previously embraced by Frazier & Tupper (2018), who utilized social learning theory (Bandura, 1986) to suggest that role modeling of superiors regarding psychological safety fuels learning processes in employees to feel psychologically safe. Also referring to aspects of signaling, Liu, Song, Li, & Liao (2017) investigated employee upward voice. The scholars utilized the emotion-as-social-information (EASI) perspective (van Kleef, 2009) to contend that, through mechanisms of emotional contagion and signaling, leaders' affect influences employees' upward voice via psychological safety.

On a team level, research by Coutifaris & Grant (2022) on antecedents of team psychological safety found feedback-sharing as particularly effective, since the behavior's self-disruptive nature (Collins & Miller, 1994; Gibson, 2018) emits signals of trust and vulnerability to the team. On the contrary, Peng, Wang, & Chen (2019) drew from social information processing theory (Salancik & Pfeffer, 1978) to show that self-serving leadership signals hostile social information, creating an environment that impedes interpersonal risk-taking which in turn negatively affects knowledge sharing and team creativity. Table 1 provides a recent excerpt of additionally used theoretical lenses to investigate micro-level relationships. Note that the COR theory has been utilized as well in this context. Singh and colleagues (2018), for instance, drew on Hobfoll's theory and its conceptualization of social support to argue that it will facilitate the accumulation of psychological safety as a personal resource.

Insert Table 1 about here

These approaches hold limited value for elucidating the basic, overarching motives for behavioral shifts in individuals and teams that operate inside organizational boundaries. To address this gap in the literature, I follow Edmondson's (1999) conception of psychological safety and build on Newman et al.'s (2017) proposal of drawing from COR theory to contribute toward establishing an integrative, macro-level model of psychological safety in teams.

A COR-BASED MODEL OF PSYCHOLOGICAL SAFETY

Here I propose a three-stage model that provides a comprehensive view of psychological safety using COR theory as an explanatory vehicle. The model highlights the role of psychological safety in the workplace and describes actions required to create and maintain it over time, as well as ways in which it influences processes and team outcomes. It is illustrated by Figure 1.

Insert Figure 1 about here

Reconceptualizing the Construct of Psychological Safety

COR theory has been widely criticized for its broad and vague definition of resources (Halbesleben et al., 2014) with researchers calling for a stricter categorization of psychological constructs (Hobfoll, 2001). While some scholars such as Singh and colleagues (2018) and Wang, Chen, & Zhu (2021) provide reasonings for classifying psychological safety as a resource, I offer an alternative view. As previously outlined, psychological safety describes individuals' perception of the safety for interpersonal risk-taking and a "shared belief that the team will not embarrass, reject, or punish someone for speaking up" (Edmondson, 1999: 364). In other words, psychological safety is a climate observable in how individuals act and react to their interpersonal environment and is suggested to be created by appropriate reciprocal behavior and circumstances within given boundaries. As such, psychological safety itself does not influence goal achievement, but it rather fosters the investment of resources that do (e.g., voicing ideas). This stands in conflict with Halbesleben et al.'s (2014: 1338) revised definition of resources as "anything perceived by the individual to help attain his or her goals", which implies a direct relationship between resource and goal attainment. Consequently, I argue psychological safety to be a belief about an ecology that creates opportunities for resource investment and accumulation. This conceptualization is in line with Halbesleben & Wheeler (2015) who classified trust, a construct sharing significant properties

with psychological safety (Edmondson & Lei, 2014), to not be a resource in itself, but rather a belief based on reciprocity.

Provided that this ecology sufficiently manifests, individuals do not need to fear resource reduction or depletion (e.g., of self-image or status) as a consequence of their behavior within the group. In addition, virtually no efforts are required to maintain or protect existing resources since this climate encourages individuals to “relax their guard” (Edmondson & Mogelof, 2004: 2) and “employ one’s self” (Kahn, 1990: 708). Instead, apart from suggested resource investments needed to create and uphold this ecology, individuals can invest resources (e.g., by presenting a novel idea, Edmondson & Mogelof, 2004; Hobfoll, 2011) in anticipation of pure resource gain. As such, psychological safety allows for two main mechanisms which might create a stress-reducing (see principle 1) and resource-engaging ecology: On the one hand, it shields individuals from resource loss and eliminates the necessity to invest resources for preservatory purposes (Edmondson, 1999; Kahn, 1990). On the other hand, it fosters resource gain through largely risk-free resource acquisition opportunities within the team. In addition, this ecology provides an two amplifying effects for resource gain. First, since a climate of psychological safety frees up resources that would be otherwise bound by individuals to shield themselves against or recover from resource loss (Detert & Burris, 2007; Hobfoll, 2011), more resources are at their disposal to invest for resource gain. Second, open and frequent interaction of individuals which is promoted by psychological safety in teams (Edmondson, 1999) facilitates the exchange of resources via crossovers (Hobfoll et al., 2018) further increasing its resource gain potential. Evidence for this line of reasoning can be found in empirical literature, illustrating that in teams with high psychological safety, resource depletion is reduced (e.g., Marx-Fleck et al., 2021) and resources are exchanged more effectively among team members to aid, for instance, shared goal achievement (Edmondson & Mogelof, 2004).

The properties of a sufficient level of team psychological safety (i.e., the belief about psychological safety is strong and shared enough that it manifests in actual behavior shifts) can thus be described as fertile ground facilitating the supply, protection, sharing, fostering, and pooling of resources. Hence, it fulfills Hobfoll's (2011) understanding of a resource caravan passageway capable of fostering a members marketplace.

Creation and Maintenance Stage

The first stage of the model describes how and when a climate of psychological safety in teams is created and maintained. Per definition, resource caravan passageways such as team psychological safety are ecologies and as such describe an environment that consists of beneficial conditions for nurturing and fostering resources. Since according to Edmondson & Lei (2014), team psychological safety does not emerge naturally, this resource caravan passageway needs to be actively created and maintained through a continuous investment of resources (see principle 2). The creation of psychological safety in teams is dependent on multilevel investments, as outlined by Edmondson & Mogelof (2004: 6) who stated that "psychological safety in [...] team[s] is affected by factors at multiple levels of analysis, including organizational [...], team [...], and individual [...]". As a consequence, I postulate three resource levels to be necessary to create and maintain the resource caravan passageway of psychological safety in teams: individual-level, team-level, and organizational level.

Further extending the typology of resources introduced by Hobfoll (1989), I propose two subclasses of resources that act in creating and maintaining a climate of psychological safety: appropriate resources and key resources. Appropriate resources are defined as those resources that facilitate the creation and maintenance of a psychologically safe environment. However, they obtain value only under certain circumstances. An example of appropriate resources are object resources such as laptops, webcams, or headsets which enable more effective interpersonal

signaling, an element critical in the context of team psychological safety (e.g., Liu et al., 2017; Xu et al., 2019), in, for instance, remote team settings. In contrast, key resources uphold their value unconditionally and are central for achieving and maintaining sufficient levels of team psychological safety. They might include condition resources such as affectivity and team trust (Hood, Bachrach, Zivnuska, & Bendoly, 2016; Li & Tan, 2013) and personal characteristics such as leadership styles and peer support (e.g., Coutifaris & Grant, 2022; Lin et al., 2020).

Investments of key resources are required to initially engender a climate of psychological safety (Edmondson & Lei, 2014). However, since at this stage there likely is no protective or resource-engaging ecology in place, these initial key investments carry considerable inherent risks, that is, potential loss of resources for the orchestrator (see principle 2). Consequently, an initial investment is likely to be made by an individual (or a group of individuals) particularly resilient against resource loss and capable of resource gain, which, according to corollary 1, are those with abundant resources (Hobfoll et al., 2018). An exemplary prospect in this context is an employee with high status within an organization, such as a respected leadership figure. Indeed, empirical evidence shows the significant implications of leaders' behaviors on (perceived) follower resources (e.g., Mao, Chiang, Chen, Wu, & Wang, 2019) and the creation of team psychological safety (e.g., Coutifaris & Grant, 2022), with, for example, Edmondson, Higgins, Singer, & Weiner (2016) and Nembhard & Edmondson (2006) referring directly to the aspect of status.

While this initial resource investment “sparks the light”, further investments and continuous reinvestments of key resources by the team leader and team members are necessary to nurture and stabilize the ecology. On an individual level, the role of the leader and his or her exchange relationship with followers (Gerstner & Day, 1997; Graen & Hl-Bien, 1995) seems to be a particularly important prerequisite as it was found to positively relate to job resources, work engagement and performance (Breevaart, Bakker, Hetland, Demerouti, Olsen, & Espevik, 2014).

Further research has shown that once a team is established, individual resource investments in the form of, for instance, behaviors (e.g., helping, Lin et al., 2020), affect (e.g., affectivity, Hood et al., 2016), and exhibition of personality traits (e.g., proactivity, Detert & Burris, 2007) act as determinants of psychological safety levels.

In the same manner, team-level resources must be invested. Considering teams evolve over time (Ilgen, Hollenbeck, Johnson, & Jundt, 2005), the team-level resource pool available to maintain and strengthen a climate of psychological safety is created over time and fluctuates continuously. For instance, energy resources such as shared knowledge or condition resources such as team tenure (Koopmann et al., 2016) and network ties (Schulte, Cohen, & Klein, 2012) are largely a consequence of the developmental processes of teams (Ilgen et al., 2005) and can be utilized as reinvestments to stabilize and strengthen the climate. This argumentation is in line with the broad-and-build theory, which proposes that the continuous positive emotions invoked by a resource-engaging ecology are conducive to creating feelings of self-other overlap among team members and foster a greater sense of “oneness” (Waugh & Fredrickson, 2006: 94), that is, a higher team psychological safety strength.

Finally, while having no immediate impact on team psychological safety, appropriate resources and resource investments at the organizational-level “set the scene” for the initial creation and subsequent fostering of team psychological safety climates (Edmondson & Mogelof, 2004). By providing resources such as salaries, beneficial organizational setups (e.g., supportive diversity climate, Singh et al., 2013), or practices (e.g., embracing failure, Edmondson & Mogelof, 2004), the organization co-defines both the resource-base of their employees and the nurturing value of a team’s macro-environment. As such, it acts as a co-determinant for the success of creating and maintaining the ecology. This is in line with, for instance, Bakker, Hakanen, Demerouti, &

Xanthopoulou (2007), who found that job resources as provided by the organization are positively related to work engagement and buffer the impact of job demands.

This line of argumentation holds explanatory value for when individuals tend to contribute toward creating team psychological safety: in cases in which the investment required for individual self-preservation in a given boundary (e.g., team) is greater than the investment required to create and maintain a climate of psychological safety in said boundary, individuals are anticipated to opt for contributing toward establishing a climate of team psychological safety.

Effect Stage

The second stage of the model describes the underlying motivational- and operating mechanisms of team psychological safety and a rationale of how they shape team processes and outcomes. Assuming that sufficient key resources have and continue to be invested, team psychological safety is argued to foster a “members marketplace” (Hobfoll, 2011: 118). This marketplace acts upon individuals and team processes through the facilitation of resource gain and crossover: Not only is the risk of resource loss or depletion rendered negligible and the need for resource protection almost non-existent, but also, opportunities for resource gain are virtually risk-free, and more resources are available for gain-related investments and crossovers. I argue that these circumstances alter the behavior of individuals in three conducive ways.

First, I suggest that a climate of psychological safety influences who contributes to a team. Naturally, a team will consist of individuals with different initial amounts of resources at their disposal. According to corollary 1, this circumstance shapes individuals’ behavior: since less vulnerable to resource loss and more capable of resource gain, team members with stronger resource pools will more likely engage in risky, resource gain-related activities, such as speaking up (Hobfoll & Shirom, 2001; Schaufeli, Bakker, & van Rhenen, 2009). In contrast, peers with fewer resources are likely to choose more defensive, self-preserving strategies to protect their

current resource base or recover from previous resource loss (see principle 4). As a consequence, an ordinary team without sufficient levels of psychological safety tends to operate on experiential input from a number of team members which is smaller than the actual size of the team. A climate of psychological safety is suggested to alter this dynamic. Since this ecology eliminates the risk of resource loss and the need for resource protection or recovery, team members with initially smaller resources have no motive to resort to defensive behavior (e.g., defensive decision-making, Marx-Fleck et al., 2021) which would limit their productive input within the team. Instead, they will seek to address opportunities for resource gain, which might include helping co-workers, sharing and exchanging knowledge, or expressing ideas, in the same manner as their high-resource peers. In other words, psychological safety renders the initial resource base of team members non-predictive of subsequent behavior by leveling resource access and the capabilities of individuals for resource gain. As a result, the effective team size, that is the number of people actively contributing to the team-internal discourse, tends to be increased, which holds critical implications for a team's processes and outcomes. Not only is the network of individuals broadened by a higher amount and more authentic connections with co-workers which creates a supportive social surrounding (i.e., condition resource) that was linked to, for instance, stress resilience (Hobfoll, 1989). But also, there is strong empirical evidence that team size beneficially influences, for instance, cognitive resources (Bantel & Jackson, 1989; Smith, Smith, Olian, Sims, O'bannon, Scully, 1994) which might lead to enhanced knowledge, creativity, and team performance (e.g., Haleblan & Finkelstein, 1993).

Second, I argue that this ecology shapes the way how individuals contribute to their team. As described, the members marketplace induced by team psychological safety strips the process of resource acquisition from its inherent risk potential while simultaneously freeing up additional resources for investments and crossovers which is conducive to improving an individual's resource base (principle 2). This creates an environment that promotes the accumulation of resources by

individuals of all resource-related backgrounds. Considering the basic tenet of COR theory which states that “people strive to [...] build resources [...]” (Hobfoll, 1989: 516), I argue that individuals part of such teams thus will be inclined to address this ecology’s resource-engaging character by exhibiting greater engagement at work (Hobfoll et al., 2018). Engagement is defined as a “positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli & Bakker, 2004: 295) and as such holds implications for, for instance, individuals’ level of energy, mental resilience, enthusiasm, inspiration, and concentration. Further, it can be crossed over from one team member to the next, creating a dissemination and amplification effect within a team (Hobfoll et al., 2018; Neff, Niessen, Sonnentag, & Unger, 2013; Neff, Sonnentag, Niessen, & Unger, 2012). Considering my argumentation that team psychological safety renders the resource position of individuals non-predictive of subsequent behavior (i.e., every team member behaves as “high-resource”), this suggestion is in line with the engagement literature (e.g., Gorgievski & Hobfoll, 2008; Schaufeli & Bakker, 2004) which argues that engagement at work represents the result of long-term resource gain. The engagement-related shift in behavior is suggested to beneficially affect team effectiveness for two reasons: First, since individuals target resource gain, they will exhibit only such behavior which is conducive to this objective, that is, behaviors that contribute to reaching the desired team outcomes. As illustrated by Lin and colleagues (2020) and Bakker & Xanthopoulou (2009), this might reach beyond in-role behavior to include general support of team members and occupying additional roles within a team. Second, as described by the broaden-and-build theory (Fredrickson, 2001), the stimulation of positive resource accumulation and crossover broadens the thought-action repertoire of team members, which encourages them to “discover novel lines of thought or action” (Fredrickson & Joiner, 2002: 172), thus amplifying problem-solving capacities, creativity, and consequently resource acquisition (e.g., Du, Ma, Cabrera, & Jiao, 2021). Note that this circumstance specifies why the construct is

suggested to be particularly advantageous in knowledge-intensive task settings (Sanner & Bunderson, 2015). Compared to routine tasks, these settings hold more suitable opportunities for team members to acquire resources in the form of, for instance, self-esteem and status as the respective objectives are more difficult to reach. Consequently, the task environment stimulates team members to adjust their behavior accordingly. An explanation for why individuals will strive to garner resources even though they hold no direct implications for their standing within their team is offered by the self-expansion model. It postulates that individuals strive for increasing “resources [...] that facilitate [the] achievement of any goal that might arise” (Aron, Aron, & Norman, 2001: 478), illustrating that an improved resource base (e.g., improved self-efficacy) is helpful for individuals beyond the boundaries of the team, which likely is less psychologically safe.

Third, I argue that COR theory explains when team members contribute to their teams’ objectives. COR theory does not specify a limit for resource accumulation. Combined with the basic tenet of the theory and the previously outlined proposition by the self-expansion model (Aron et al., 2001), this implies that individuals will continuously strive for resource gain, no matter their current resource situation. Since a climate of team psychological safety posits fertile ground for resource acquisition, I suggest that individuals will hence continue to utilize this ecology to accumulate and crossover resources as long as no superior alternative is available. Empirical evidence for this “lock-in” effect of psychological safety can be found in Singh and colleagues’ (2018) article which found that the construct mediates the positive relationship between social supportive resources and organizational embeddedness. The continuous contribution of team members sheds light on a reciprocal effect: since team members will engage in behavior suitable for resource acquisition which is conducive to reaching work objectives (Halbesleben et al., 2014), further resources and resource types will be unlocked during a team’s development process. These resources, which might include improved satisfaction and commitment (Frazier, Fainshmidt,

Klinger, Pezeshkan, & Vracheva, 2017) or greater sharedness of codes and language (Collins & Smith, 2006), in turn not only improve the resource base of individuals in a team. But also, they can be reinvested to increase and strengthen the team psychological safety climate by, for instance, creating a greater self-other overlap with colleagues (Waugh & Fredrickson, 2006), which in turn increases the probability for future success of the team. In addition, as outlined in the longitudinal study by Neff and colleagues (2013), garnered resource caravans of one team member might cross over to other team members, thereby potentially creating a chain of crossovers (Hobfoll et al., 2018). These mechanisms have two implications for individuals and teams: on the one hand, the continuous gain and crossover of resources renders a climate of team psychological safety an important source of resilience (Hobfoll et al., 2018) as well as sustainable and consistent performance over time. On the other hand, the self-reinforcing nature of these mechanisms and the fact that positive crossovers pose a stronger impact on groups than negative crossovers (Westman, Shadach, & Keinan, 2013) renders it a potential key enabler for creating gain spirals within teams (see corollary 3; Hobfoll, 2002, 2011). Addressing the notion of gain spirals, Halbesleben & Wheeler (2015) similarly argue that beneficial behavior in the present improves the positioning of individuals for resource gain in the future, thereby enabling accumulation effects over time.

Note that the way team psychological safety is proposed to shape behaviors might also aid to shed light on the “dark side” of psychological safety, that is, the negative effects of the construct in case it is very pronounced but misses clear boundaries. First, the sheer quantity and diversity of input for the decision-maker in highly psychologically safe teams is likely to be greater than in their less psychologically safe counterparts as a consequence of variances in engagement. While this is beneficial up to a certain degree, a flooding of the creative process with information in the hopes of resource gain compromises a team’s agility and decision quality, a phenomenon widely researched in the literature (see Edmunds & Morris, 2000 for a review). An amplifying effect in

this regard could be a reduction in average contribution quality as a consequence team members' attempts to gain resources by providing an abundance of input. Second, an environment that unconditionally and equally values the contributions of its actors might lead individuals to overestimate their importance and positioning within the team. Not only can this lead to an unjustified entitlement of said individuals which may be a source of conflict, but also could jeopardize the team structure which in turn might negatively affect its effectiveness. Role clarity, in this regard, has widely been attributed a vital role for team psychological safety (e.g., Frazier et al., 2017). Third and last, teams might strive to obtain an objective while disregarding social standards and norms in a "blind" pursuit of resources. This effect has been observed by Pearsall & Ellis (2011) who investigated 126 teams to find that teams with higher levels of psychological safety are more likely to engage in unethical behaviors.

Harvest Stage

The last stage of the model is the harvest stage which details how previously altered team processes influence the resource base of individuals and teams during collaboration and by reaching desirable team outcomes. As described previously, the team psychological safety-induced members marketplace alters individual behavior in three ways which ultimately improves the effectiveness of team processes: greater effective team size, higher engagement, and improved performance consistency. These changes hold implications for the resource situation within and beyond the ecology.

From an individual-level point of view, the alteration of team processes and the reaching of objectives holds direct implications for a team member's resource base. Most intuitively, personal characteristics-resource caravans might be harvested. This could include, for instance, an improved sense of self (e.g., greater self-confidence and self-efficacy). Further, condition-resources are enhanced. Not only will individuals gain caravans including, for example, tenure and seniority, but

also their social surrounding at work is strengthened as a consequence of the continuous open and constructive dialogue with team members. A strong social surrounding with its ability to back an individual in times of crisis by providing support and advice is a distinctive predictor of resilience (Hobfoll, 1989) which again emphasizes the reciprocal nature of team psychological safety. In addition, individuals likely build up new knowledge during the exchange process with colleagues and, in case of a promotion or bonus payment, increase their monetary position, all of which strengthens their energies-resources. In case of additional money available, object-resources can subsequently be garnered as well.

From a team-level perspective, the successful collaboration of team members creates resources that span across individuals. Cognitively, the extensive and continuous exchange of individuals is argued to foster the creation of, for instance, shared cognition (Converse, Cannon-Bowers, & Salas, 1993) which has been proven to influence team performance (e.g., Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000; Pearsall, Ellis, & Bell, 2010). Affectively and socially, the open dialogue within the team may establish or improve, for instance, conflict management. Apart from proximal resources, the successful completion of team objectives might yield distal resources, such as financial resources or innovative knowledge. Again, considering the majority of these resources (especially proximal) act upon the team itself at the time of acquisition and as such are automatically reinvested (e.g., team tenure), the harvesting of team resources can be described as a reinforcing factor of the ecology.

Lastly, organizations might also harvest resources. Since psychologically safe teams tend to perform well (Edmondson & Lei, 2014; Frazier et al., 2017), the results and resources they generate can be beneficial for organizations. Not only can distal outcomes such as innovations be utilized by companies to improve their competitive positioning. But also, individuals part of such teams might carry within-team behaviors and resources such as improved engagement and resilience

beyond the team's boundaries and induce additional resource crossovers. This "spillover-effect" may have the potential to beneficially influence the overall climate and performance of an organization over time. This argumentation is in line with Westman (2001), who clarified that positive crossover can impact not only teams, but also organizations. The importance of individual-level engagement for organizational vigor, which by definition includes aspects of resilience (Schaufeli & Bakker, 2004), is further illustrated by Hobfoll and colleagues (2018: 110), who stated that organizational vigor "probably reflects the synergistic accumulation of individual employees' level of vigor".

IMPLICATIONS FOR FUTURE RESEARCH AND LIMITATIONS

I believe the herein proposed reasonings represent a first step toward improving our understanding of the underlying mechanisms describing how psychological safety operates in the work environment. Scholars may find meaning in utilizing this model as a basis for further conceptual and empirical advancements – either of certain aspects of the model or of the model as a whole. One element could be advancing a sophisticated typology of resources and their classification into appropriate and key resources in particular. This could include not only identifying resources that favor the creation and maintenance of team psychological safety, but also the intensification of research efforts regarding their necessity. Clearly, establishing an improved understanding of which kinds of resources are imperative at which development stage of this ecology holds significant value for both research and practice. Based on such findings, aspects such as the initial "spark" of psychological safety in the creation stage could potentially be better understood. Another element might be underpinning newly suggested theoretical effects of team psychological safety, such as rendering the resource base of individuals non-predictive of their behavior or its potential of creating gain spirals and spill-overs of within-team behavior and resources to the organization, with empirical evidence. While the existence of, for instance, the

spill-over effect has been addressed by Westman (2001) and Hobfoll and colleagues (2018), psychological safety-specific research is missing in the literature. Similarly, literature is argued to benefit from scholars taking a closer look at the herein-proposed effect of psychological safety on engagement as the main lever of performance improvement, drawing attention away from the construct's frequent conceptualization as a mediator in extant literature. A further element may entail addressing the reciprocal nature of team psychological safety by employing a more dynamic and temporal lens toward team psychological safety research. Specifically, this would allow scholars to investigate how psychological safety unfolds over time and explore key mechanisms of the COR theory such as gain and loss spirals, including how to create and maintain or break them, respectively. Scholars might also utilize my initial reasoning for further exploring the importance of regulating the ecology and detailing the negative side of psychological safety. On a final note, scholars might utilize this model to emphasize the interdisciplinary nature of the psychological safety construct to further strengthen the bond of management- and organizational research with, for instance, clinical psychology. Considering the COR theory's importance for, for instance, burnout research (e.g., Brotheridge & Lee, 2002; Ma et al., 2021; Neveu, 2007), this model might hold inspirational value for determining, creating, and shaping conducive environments in, for instance, therapy clinics and rehab centers.

There are four main limitations to the herein-proposed model. First, since the model is a high-level view of team psychological safety, it is inherently limited in its degree of detail on the micro-level. This includes the omission of questions, for instance, regarding the exact procedure of resource acquisition and exchange in the context of concrete behaviors or the role of potential microclimates of psychological safety in teams (see Roussin, MacLean, & Rudolph, 2016). However, considering the research on psychological safety is particularly prominent in the realm of applied psychology, many related mechanisms have already been described and relationships

studied. Second, considering the novelty of the proposed reasonings, the overall correctness of the model is to be confirmed and certain aspects detailed. Even though a variety of empirical evidence has been utilized to act as affirmation, this endeavor would include the underpinning of certain lines of argumentation and proposed effects with additional empirical research. As outlined in the previous paragraph, this may include investigating the existence of spill-over effects from psychologically safe teams to their organizational surroundings over time. Third, this model of team psychological safety specifically refers to the context of work environments. As such, it is limited in its applicability to group dynamics beyond work, for instance in society in general or private life. Fourth, the model is not exempted from the limited predictive capacity and generalizability of COR theory and psychological safety perceptions. As outlined by Hobfoll (2001) and Frazier and colleagues (2017), factors such as personality traits can have a significant impact on how individuals evaluate and react to certain events and their surroundings in general.

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TABLE 1
Exemplary Theoretical Lenses Applied in Psychological Safety Research

Nr.	Theoretical lens	Application	Level of analysis	Work(s)
1	Emotion-as-social-information (EASI) perspective	Detailed how leaders' affect influences employees' voice via psychological safety through emotional contagion and signaling	Individual-level	Liu et al. (2017)
2	Self-perception theory	Posited that, because of the self-reflection of their undesirable behavior, knowledge hiders less likely perceive psychological safety and thus struggle to thrive at work	Individual-level	Jiang et al. (2019)
3	Signaling theory	Explicated how subordinate-supervisor personality congruence influences communication and, as such, the degree to which subordinates will act authentically	Individual-level	Xu et al. (2019)
4	Social learning theory	Outlined a trickle-down effect of psychological safety from supervisors to subordinates as subordinates strive to adopt witnessed behavior and attitudes	Individual-level	Frazier & Tupper (2018)
5	Social role theory	Explicated that the effect of psychological safety on creative self-efficacy is stronger for women than men as it encourages women to break with their social role	Individual-level	Hora, Lemoine, Xu, & Shalley (2021)
6	Social information processing theory	Argued that self-serving leadership provides threatening social cues leading individuals to perceive their team as psychologically unsafe which reduces team creativity	Individual-level	Peng et al., 2019
7	Evolutionary perspective	Posited that status conflict negatively relates to team psychological safety as a consequence of, among others, destructive intrateam competition	Team-level	Lee et al. (2018)
8	Goal shielding theory	Outlined how teams high in bottom-line mentality encapsulate goal shielding and thus lack fostering psychological safety and consequently creativity	Team-level	Greenbaum, Bonner, Mawritz, Butts, & Smith (2020)
9	Group formation theory	Illustrated that psychological safety climate and climate strength are higher in teams of short and long tenure compared to teams of medium tenure	Team-level	Koopmann et al., (2016)
10	Self-disclosure theory	Put forward that feedback sharing of leaders (i.e., criticism and suggestions they received on their	Team-level	Coutifaris & Grant (2022)

11	Uncertainty reduction theory	performance) is particularly effective in promoting psychological safety Contended that ethical leadership benefits team creativity via psychological safety by providing predictability, integrity, and support	Team-level	Tu, Lu, Choi, & Guo (2019)
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FIGURE 1
A Conceptual Model of Psychological Safety in Teams

