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How does an emotional culture of joy cultivate team resilience? A sociocognitive perspective

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Summary

The complex nature of work tasks leads many organizations to organize work around teams, which must develop the capacity to cope with and adapt to a variety of adverse situations. However, our knowledge and understanding of what enables and inhibits the development of resilient teams, that is, change in teams' resilience capacity, have yet to be fully developed. Drawing on the build hypothesis of broaden-and-build theory, we explore the dynamic emotional, social, and cognitive elements that underlie change in team resilience capacity. We posit that a change in a team's emotional culture of joy predicts change in team resilience capacity through both social and cognitive mechanisms (i.e., change in mutuality and change in reflexivity). The results from a two-wave study involving 91 teams (comprising 1291 individual responses) indicate that the positive relationship between change in the emotional culture of joy and change in team resilience capacity is mediated by change in mutuality and change in reflexivity. This research advances the emerging literature on team resilience by theoretically delineating the underlying affective, social, and cognitive collective mechanisms that lead to within-team variability in team resilience capacity.

KEYWORDS
emotional culture, high-quality connections, positive organizational behavior, team reflexivity, team resilience

1 | INTRODUCTION

In an increasingly dynamic business environment, organizations and their members often face a variety of adverse situations (James, 2011; Stoverink, Kirkman, Mistry, & Rosen, 2020). Thus, resilience, the capacity to successfully cope with setbacks and adversity (Sutcliffe & Vogus, 2003), is a key subject of inquiry in organizational studies (King, Newman, & Luthans, 2016; Wright & Quick, 2009). As the work in most organizations is primarily organized around teams (McDaniel & Salas, 2018) and teamwork is often used for critical tasks

that entail high risk (Kozlowski & Chao, 2018; Maynard, Kennedy, & Resick, 2018), scholars have noted the need to better understand how teams develop resilience (Stoverink, Kirkman, Mistry, & Rosen, 2020). However, the theoretical development and empirical research on team resilience in the workplace are still in their infancy (Hartmann, Weiss, Newman, & Hoegl, 2020; King, Newman, & Luthans, 2016).

Conservation of resources (COR) theory suggests that work team resilience may develop indirectly from resource passageways, that is, fertile grounds for the development of resources, through resource

caravans, that is, co-existing resources (Chen, Westman, & Hobfoll, 2015; Hobfoll, 2011a; Hobfoll, Halbesleben, Neveu, & Westman, 2018). This relationship occurs because resource passageways may fuel broaden-and-build (BnB) dynamics that benefit the development of additional resources, which ultimately cultivate resilience (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014; Hobfoll, 2011b). Connecting these arguments to the core tenets of BnB theory (Fredrickson, 2001), we argue that positive emotional team cultures function as a resource passageway. According to BnB theory, positive emotions, such as those expressed in a positive emotional team culture, not only buffer against adverse demands (undoing effect) but also broaden people's thought-action repertoire, which is conducive to building durable social and cognitive resources that are essential for coping with and growing from adversity (Cohn, Fredrickson, Brown, Mikels, & Conway, 2009; Fredrickson & Joiner, 2002; Garland et al., 2010). In particular, the build hypothesis of BnB theory suggests a dynamic view and argues that changes in positive emotional experiences may foster growth in psychological resources such as resilience via growth in social and cognitive resources (Fredrickson, 2013; Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008). This dynamic view is in line with COR theory's argument that resource growth begets future growth in connected resources (Hobfoll, 2011a).

Building on COR theory as an overall framework and BnB theory for deriving specific pathways, we theorize about a dynamic dual pathway model that hypothesizes change-to-change relationships and explains how team resilience capacity in organizations can be developed. First, we focus on the role of teams' emotional culture of joy as a key manifestation of positive collective emotions (Barsade & O'Neill, 2016; Fredrickson, 2013; Menges & Kilduff, 2015) and a key driver of team resilience (Fredrickson, 2003). We then argue that teams' emotional culture is a passageway that facilitates the development of resource caravans, which facilitate team resilience (Chen, Westman, & Hobfoll, 2015). Thus, we theorize about and empirically test the role of (1) social mechanisms in teams—focusing on mutuality, which represents committed, supportive, and empathetic teamwork (Dutton & Heaphy, 2003) and is key for team functioning (Tse, Dasborough, & Ashkanasy, 2008) and collectives' resilience (Barton & Kahn, 2019; Lawrence & Maitlis, 2012; Williams, Gruber, Sutcliffe, Shepherd, & Zhao, 2017); and (2) cognitive mechanisms in teams—focusing on reflexivity, which encompasses situational awareness,

overt exploration, and collective information sharing (Schippers, den Hartog, & Koopman, 2007; Schippers, Edmondson, & West, 2014). These processes are key to developing the capacity to successfully handle adversity and learn from it (Carmeli, Dutton, & Hardin, 2015; Maitlis & Sonenshein, 2010; Stoverink, Kirkman, Mistry, & Rosen, 2020).

By developing and testing this dynamic dual pathway model, shown in Figure 1, based on latent change score (LCS) modeling, our study contributes to the literature in three ways. First, we contribute to the literature on resilience in the workplace by examining a relatively understudied question concerning the antecedents of team resilience (Hartmann, Weiss, & Hoegl, 2020; King, Newman, & Luthans, 2016; Stoverink, Kirkman, Mistry, & Rosen, 2020) and by delineating a dual pathway model that reveals the underlying mechanisms of team resilience. Specifically, our research highlights the role of collective positive affect in building team resilience capacity. In doing so, we extend the prior theorizing on team resilience, which has only paid limited attention to affective team mechanisms of team resilience (Stoverink, Kirkman, Mistry, & Rosen, 2020). Moreover, we address the call of Caza, Barton, Christianson, and Sutcliffe (2020) to investigate the mechanisms of resilience in organizations. Specifically, we shed light on the important role of mutuality and reflexivity in teams, which may not only foster team resilience but also further delineate why and how a team's emotional culture of joy links to team resilience capacity.

Second, we answer the scholarly calls to shed light on the dynamic nature of resources at work (Vantilborgh, Hofmans, & Judge, 2018), the dynamics in team contexts (Cronin, 2015; Matusik, Hollenbeck, Matta, & Oh, 2019), and the dynamic nature of team resilience (Gucciardi et al., 2018). Most workplace phenomena are dynamic in nature, most organizational theories specify dynamic phenomena, and teams are dynamic entities (Cronin, 2015; Matusik, Hollenbeck, Matta, & Oh, 2019; Vantilborgh, Hofmans, & Judge, 2018). Nevertheless, the research capturing the dynamic team processes that lead to positive changes in teams is still scant, and empirical quantitative research on team resilience has primarily relied on cross-sectional data (Chapman et al., 2020). Extending this prior work, we focus on change-to-change relationships and shift the line of research on team resilience from between-team variability in team resilience capacity (as investigated in cross-sectional research) to within-team variation.
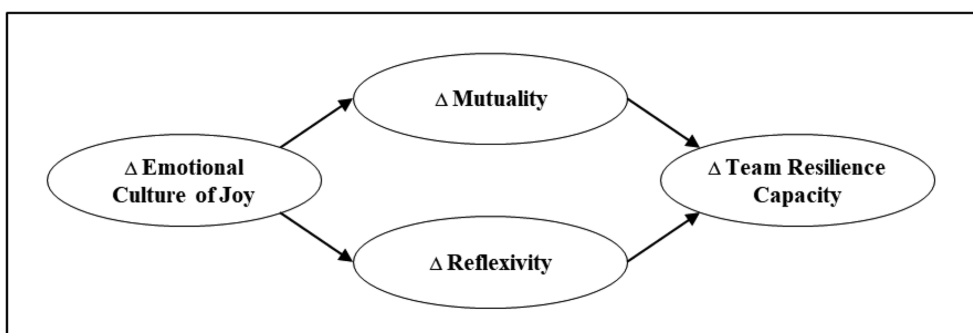
FIGURE 1 Conceptual model of the study

Third, although interest in resilience in the workplace has dramatically increased in recent decades, as reflected in the rising number of conceptual pieces and reviews (e.g., Kossek & Perrigino, 2016; Stoverink, Kirkman, Mistry, & Rosen, 2020; Williams, Gruber, Sutcliffe, Shepherd, & Zhao, 2017), "there has been only a limited integration of theory to explain how resilience develops" (King, Newman, & Luthans, 2016, p. 784), which is why the prior work has called for theoretical advancement of the research on team resilience (Hartmann, Weiss, Newman, & Hoegl, 2020; Hartwig, Clarke, Johnson, & Willis, 2020). We build on COR theory (Hobfoll, 1989; Hobfoll, Halbesleben, Neveu, & Westman, 2018) to develop our overall conceptual framework, in which a resource passageway provides nurturing ground for fertilizing resource caravans comprising connected but different resources, which ultimately help in building team resilience. To specify these resources, we rely on BnB theory (Fredrickson, 2001), which highlights the BnB dynamics of positive emotions that foster psychological resilience via social and cognitive pathways. Given that COR theory and BnB theory belong to the most influential theories in organizational psychology and research on stress and resilience (Fredrickson & Joiner, 2018; Hobfoll, Halbesleben, Neveu, & Westman, 2018), stronger integration of these theories in the study of resilience in the workplace seems warranted (Hartmann, Weiss, Newman, & Hoegl, 2020). By advancing this line of research, we extend theorizing to the team level of analysis. Furthermore, we focus on dynamic change-to-change relationships. Thus, we contribute to the relatively scarce empirical research on gain-spiral pathways from passageways to resource caravans proposed by COR theory (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014) and on the build hypothesis of BnB theory (Fredrickson, 2013). In taking the step to integrate these theoretical perspectives into our final conceptual model, we advance the theory by more fully explaining the underlying dynamics in the development of team resilience.

2 | THEORETICAL BACKGROUND AND HYPOTHESES

2.1 | Team resilience

Resilience constitutes a psychological resource and is one of the core constructs of positive psychology (Seligman & Csikszentmihalyi, 2000) and positive organizational behavior (Luthans & Youssef, 2007). The construct has received considerable scholarly attention as one component of the state-like resource of psychological capital (Luthans, Youssef, & Avolio, 2007). Scholars have argued that resilience shares some conceptual overlap with the concept of thriving, as both concepts indicate a state of positive adjustment (Spreitzer, Sutcliffe, Dutton, Sonenshein, & Grant, 2005). However, resilience encompasses circumstances of adversity or significant challenges (King, Newman, & Luthans, 2016). Prior research has highlighted that certain more stable characteristics and features, such as courage or hope, have buffering functions and may ameliorate functioning in cases of adversity (Fisher, Ragsdale, & Fisher, 2019; Richardson, 2002).

Beyond these promoting factors, individuals and teams must activate certain mechanisms that relate to the specific reactions and strategies of which individuals and teams make use in the face of adversity to be able to handle such adversity and to respond successfully to it (Hartmann, Weiss, & Hoegl, 2020; McLarnon & Rothstein, 2013). For example, the mechanism of emotion regulation may help to reduce the experience of distress and increase the experience of positive emotions in the face of adversity, while applying effective coping mechanisms is necessary to successfully adjust (Gloria & Steinhardt, 2016; Kossek & Perrigino, 2016; Tugade & Fredrickson, 2007).

Focusing on the team level of analysis, we define team resilience as the capacity of a team to successfully cope with adverse situations, adapt and grow (Carmeli, Friedman, & Tishler, 2013). As such, team resilience capacity describes a team's potential to show positive functioning in the face of adversity (Stoverink, Kirkman, Mistry, & Rosen, 2020). Whereas teams can possess a resilience capacity with or without having experienced adversity, they must face adversity to demonstrate resilience (Britt, Shen, Sinclair, Grossman, & Klieger, 2016; Stoverink, Kirkman, Mistry, & Rosen, 2020). In line with the previous theorizing on team resilience capacity (Stoverink, Kirkman, Mistry, & Rosen, 2020) and following Marks, Mathieu, and Zaccaro (2001, p. 357), we conceptualize team resilience capacity as an emergent state of a team, which is defined as the "properties of the team that are typically dynamic in nature and vary as a function of team context, inputs, processes, and outcomes." This conceptualization implies that team resilience capacity is dynamic and can be influenced by prior experience and team members' interactions (Sutcliffe & Vogus, 2003). We provide a first attempt to understand how team resilience capacity changes and develops (i.e., treating change in team resilience capacity as an outcome).

Scholars suggest that acquiring resource endowments is likely to boost resilience (Gucciardi et al., 2018; Williams, Gruber, Sutcliffe, Shepherd, & Zhao, 2017). In this regard, COR theory argues that nurturing grounds, so-called passageways, are helpful in creating resource caravans, that is, co-traveling resources, which together enhance team resilience (Chen, Westman, & Hobfoll, 2015). We argue that an emotional culture of joy in teams functions as a nurturing ground, as can be explained by BnB theory (Fredrickson, 2013; Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014). BnB theory suggests that positive emotional experience is key in fostering resilience because it broadens and builds social and cognitive resources that are conducive to enhancing resilience (Fredrickson & Joiner, 2002). The build hypothesis of BnB theory focuses on the lasting changes that are fueled by repeated positive emotional experiences over time (Fredrickson, 2013). It posits that changes in positive emotions can lead to changes in both social and cognitive mechanisms, which, in turn, lead to changes in psychological resources such as resilience (Cohn, Fredrickson, Brown, Mikels, & Conway, 2009; Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008; Fredrickson & Joiner, 2002). In what follows, we first discuss the role of collective emotional experiences (manifested by an emotional culture of joy) in fostering team

resilience capacity followed by a discussion of the social and cognitive mechanisms that link an emotional culture of joy with team resilience capacity.

2.2 | An emotional culture of joy and team resilience capacity

The research suggests that over time and because of reiterating group emotions, patterns or regularities in group emotions emerge in team settings, forming a shared perception of the team's affective experience such as an affective climate or an emotional culture (Menges & Kilduff, 2015). Even within the same organization, different teams are likely to develop distinct affective patterns (Tse, Dasborough, & Ashkanasy, 2008). Whereas the construct of affective climate describes a general collective emotional tone of different emotions of the same valence (Menges & Kilduff, 2015; Tse, Dasborough, & Ashkanasy, 2008), emotional culture refers to a specific common discrete emotion, either positive, such as joy or companionate love, or negative, such as anger and fear (Barsade & O'Neill, 2014; Menges & Kilduff, 2015; Ozcelik & Barsade, 2018). Here, we focus on emotional culture, which is defined as "the behavioral norms and artifacts, as well as the underlying values and assumptions, that guide the expression (or suppression) of specific emotions and the appropriateness of displaying those emotions within a social unit" (O'Neill & Rothbard, 2017, p. 78). In an exploratory study, Barsade and O'Neill (2014, see Appendix) found that working units expressed the emotional culture of joy most frequently and significantly more than other emotional cultures. This finding is in line with prior research, which suggests that joy is the most often felt emotion and, thus, one of the most basic and prevalent human manifestations of positive affect (Ekman, 1992; Fredrickson, 2013; Shaver, Schwartz, Kirson, & O'Connor, 1987). Compared with other positive emotions, such as contentment or satisfaction, which are characterized by low emotional activation, joy is a high-arousal emotion (Fredrickson, 1998; Russell, 1980). Thus, joy drives action and creates an urge to become involved and to be connected to others, whereas contentment, for instance, drives a more self-focused urge to savor current experiences and integrate them into mental schemes (Fredrickson, 1998, 2013; Frijda, 1986). Because of these distinct effects of emotions of the same valence (for a more detailed description of the different effects of positive emotions, see Fredrickson, 2013), scholars have noted that the research on group emotions could benefit from studying specific discrete emotions instead of applying a valence-based approach (i.e., positive versus negative emotions) (Menges & Kilduff, 2015). Therefore, we focus on one specific discrete emotion in our analysis: the emotion of joy.

Feelings of joy arise in safe contexts and emerge when people experience a pleasant stimulus or a moment of good fortune (Fredrickson, 2013; Frijda, 1988). Thus, a feeling of joy can arise from the experience of a pleasant situation such as a cheerful event or a happy moment with another person or from receiving good news (Ekman, 1992; Frijda, 1988). The research suggests that individual

feelings of joy will converge to a shared emotional culture of joy through direct and indirect crossover processes such as empathy, emotional contagion, normative processes, or shared affective experiences (e.g., Ashkanasy, 2003; Barsade & Knight, 2015; Barsade & O'Neill, 2014; Hobfoll, Halbesleben, Neveu, & Westman, 2018; Menges & Kilduff, 2015).

An emotional culture of joy is defined as the "behavioral norms, artifacts, and underlying values and assumptions reflecting the actual expression or suppression" of joy, happiness, excitement, and enthusiasm and "the degree of perceived appropriateness of these emotions, transmitted through feeling and normative mechanisms within a social unit" (Barsade & Knight, 2015, p. 26). In teams that are characterized by an emotional culture of joy, team members often share joy through spoken words, facial expressions, body language, or auditory tone (Barsade & O'Neill, 2014). In a workplace context, an emotional culture of joy is developed and becomes recognizable through joking, displaying a playful spirit in team meetings, or having fun through cheerful activities. Members of teams with a high level of the emotional culture of joy will smile and share their good feelings in conversations (Barsade & O'Neill, 2016; Shaver, Schwartz, Kirson, & O'Connor, 1987). As such, an emotional culture of joy is similar to an emotional culture of joviality (O'Neill & Rothbard, 2017), as it embraces having fun at work. However, joviality is closer to the feeling of amusement in that it embraces and values pranks and teasing (Barsade & O'Neill, 2016; O'Neill & Rothbard, 2017), which is not part of an emotional culture of joy. Importantly, in teams with an intense emotional culture of joy, cheerful behavior is valued and appreciated (Barsade & O'Neill, 2016). Therefore, an emotional culture of joy can be elicited and maintained through different actions, including leaders' role modeling, team artifacts such as visible team pictures, and rituals such as social gatherings that show and symbolize cheerful interactions between team members (Barsade & O'Neill, 2016; Menges & Kilduff, 2015). However, scholars note that implementing a culture that promotes joy and fun at work is complex and takes time, as employees' response to organizational initiatives may be ambivalent (Fleming, 2005; Owler, Morrison, & Plester, 2010).

BnB theory predicts that positive emotional experiences enhance resilience through different mechanisms (Fredrickson, 2013). First, positive emotions have a so-called undoing effect. They revitalize key resources by buffering against the negative consequences of negative emotions, which people are likely to perceive in stressful situations (Fredrickson, Mancuso, Branigan, & Tugade, 2000; Tugade & Fredrickson, 2004). Second, according to the broaden hypothesis of BnB theory, the experience of positive emotions broadens an entity's range of cognition and action options, leading to cognitive flexibility and more inclusive and connected social perceptions (Fredrickson, 2013; Rhee, 2007). Third, according to the build hypothesis, positive emotions may accumulate and compound over time and may place entities on positive trajectories of growth, fostering increases in other positive resources, which are essential for coping with hardship and adversity as well as subsequent adaptation (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008; Fredrickson & Joiner, 2002; Waugh & Fredrickson, 2006). Prior research argues that

these mechanisms are not only relevant at the individual level of analysis but are also important features of social interactions in teams (e.g., Fredrickson, 2003; Rhee, 2007; Stephens, Heaphy, Carmeli, Spreitzer, & Dutton, 2013). In fact, BnB theory argues that the positive influence of positive affect on the growth of personal resources amplifies when positive affect is co-experienced and shared (Fredrickson, 2016; Prinzing et al., 2020). In a team context, this argument suggests that positive emotional experience may ameliorate workforce strain and the negative effects of collectively felt stressors (Knight, Menges, & Bruch, 2018), and it may further build collective resources over time through team member interactions (Rhee, 2007), which can foster team resilience (Fredrickson, 2003). In line with this, research indicates that collective positive emotions are positively related to team resilience capacity (Meneghel, Salanova, & Martínez, 2016).

The build hypothesis of BnB theory suggests that it is important to consider the growth of positive emotions (Fredrickson, 2013). This suggestion is in line with the research on group affect, which has highlighted that acknowledging emotional dynamics is key for understanding group functioning (Barsade & Knight, 2015; Knight, 2015; Menges & Kilduff, 2015). In particular, the build hypothesis posits that the accumulation of positive emotions may trigger positive change in additional resources (Garland et al., 2010). In line with this dynamic view, COR theory argues that shared conditions, such as an emotional culture of joy, can be nurturing and can fuel generative resource dynamics (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014; Hobfoll, Halbesleben, Neveu, & Westman, 2018). Providing initial evidence for this theorizing, empirical research has found that positive change, that is, increases, in teams' positive affective tone predicted negative change, that is, decreases, in team absenteeism (Mason & Griffin, 2003), which is an important outcome of workplace strain (Knight, Menges, & Bruch, 2018). Based on these arguments, we suggest that positive change in teams' emotional culture of joy may lead to increases in teams' resilience capacity, which enables teams to handle strain and stressors. Thus, we propose the following:

Hypothesis 1. There is a positive relationship between change in the emotional culture of joy and change in team resilience capacity.

2.3 | The mediating role of social and cognitive mechanisms

BnB theory suggests that positive emotional experiences build consequential resources through the effect of such experience on broadened social and cognitive awareness (Fredrickson, 2013). As such, an increase in positive collective emotional experiences can unleash change in social and cognitive resources, ultimately putting teams onto positive trajectories of growth (Fredrickson, 2001). It is likely that these processes are not isolated but connected to each other, as can be explained by COR theory, which highlights the idea of resource

caravans (Hobfoll, 2011a). Resource caravans describe the phenomenon whereby resources tend to develop and change in packs and, thus, resource pathways are unlikely to exist individually (Hobfoll, Halbesleben, Neveu, & Westman, 2018). This phenomenon occurs because resources are likely to emerge from nurturing conditions, that is, passageways, which not only affect resources individually but instead influence connected resources in similar ways (Hobfoll, 2011a). These passageways "may fuel broaden-and-build dynamics (Fredrickson, 2003) to the benefit of goal achievement and additional resources" (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014, p. 1352). COR theory argues that culture in organizations may function as an important passageway that potentially helps develop resilience (or inhibits it) (Hobfoll, Halbesleben, Neveu, & Westman, 2018). Following this line of thinking, we suggest that a team's emotional culture of joy may function as a nurturing passageway that fuels broaden and build processes to foster simultaneous growth of additional resources. In what follows, we specify a social (mutuality) and a cognitive (reflexivity) mechanism that explain why change in an emotional culture of joy leads to change in team resilience capacity.

2.4 | The mediating role of mutuality

BnB theory suggests (and ample empirical research supports) that increasing experience of positive emotions fosters social resources, which in turn fosters people's physical functioning and mental resilience (e.g., Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008; Johnson & Fredrickson, 2005; Kok et al., 2013). Concerning the path from positive emotions to social resources, BnB theory posits that positive emotions experienced in a given context facilitate the broadening of thought–action repertoires in ways that allow members to cultivate high-quality social relationships (Fredrickson, 2001; Waugh & Fredrickson, 2006). In this regard, research has found that the experience of positive emotions predicts higher self-other overlap and a more complex understanding of other people (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008; Waugh & Fredrickson, 2006). Furthermore, with increasing positive emotional experience, people feel closer to each other (Kok et al., 2013) and are more likely to develop inclusive group representations, that is, feelings of "us" instead of "them" (Dovidio, Gaertner, Isen, & Lowrance, 1995). In line with this phenomenon, collective positive affect fosters mutual prosocial behavior, such as empathy (West et al., 2020). Concerning the discrete emotion of joy, BnB theory and research on emotions suggest that joy frees activation and motivates people to socially connect to others and engage in these social relationships (Fredrickson, 2013; Frijda, 1986). As such, collective feelings of joy motivate the building of genuine high-quality relationships within the given context.

Mutuality captures the essence of experiencing high-quality work relationships because it manifests members' experience of full participation and engagement in a connection (Carmeli, Jones, & Binyamin, 2016; Dutton & Heaphy, 2003; Miller & Stiver, 1997). It encompasses empathetic relating, commitment, and mutual support

(Carmeli, Brueller, & Dutton, 2009; Stephens, Heaphy, & Dutton, 2011). In contrast to other forms of social interactions, mutuality is less instrumental but a more humanizing form of an interpersonal connection (Carmeli, Dutton, & Hardin, 2015). For example, whereas interactions such as team–member exchange relationships focus on the exchange of resources or rewards, require reciprocation, and are argued to anchor in self-interest (Cole, Schaninger, & Harris, 2002; Seers, Petty, & Cashman, 1995), mutuality focuses on a mutually developmental social experience that emphasizes the value and worth of the people in the connection (Dutton & Heaphy, 2003; Stephens, Heaphy, & Dutton, 2011). Thus, mutuality captures BnB's theorizing about positive emotions that instill a sense of mutuality in the relationships between members. Based on this theorizing, we suggest that change in the emotional culture of joy fosters change in mutuality.

High-quality relationships are generative and life giving (Dutton & Heaphy, 2003) and can form an important resource for team functioning in general (Tse & Dasborough, 2008; Tse, Dasborough, & Ashkanasy, 2008) and for team resilience capacity in particular (Carmeli, Friedman, & Tishler, 2013; Stephens, Heaphy, Carmeli, Spreitzer, & Dutton, 2013). This phenomenon suggests that mutuality, as an experience of a positive and high-quality relationship, is likely to be related to team resilience capacity. One reason for this relation is that high-quality relationships endogenously equip members with resources to act and produce and nurture psychological capacities, as highlighted by the relational resourcing view (Carmeli, Dutton, & Hardin, 2015; Friedman, Carmeli, & Dutton, 2018). As such, mutuality exemplifies a generative form of social interrelating, which links to the build hypothesis of BnB theory (Carmeli, Dutton, & Hardin, 2015; Fredrickson, 2013). Especially in adverse situations, team members commonly feel vulnerable and benefit from empathetic and committed relating (Lilius et al., 2008). Increasing mutuality may create a holding environment and can reduce collective feelings of anxiety and strain (Barton & Kahn, 2019; Bliese & Britt, 2001; Kahn, 2001). Additionally, Lawrence and Maitlis (2012) noted that mutual caring and empathetic relating may enhance team resilience. This relationship occurs because the enactment and experience of caring practices strengthen teams' belief in their abilities to deal with adversity and may moreover expand action options for addressing challenges (Chen, Westman, & Hobfoll, 2015; Lawrence & Maitlis, 2012), which is both central to teams' resilience capacity (Stoverink, Kirkman, Mistry, & Rosen, 2020). We theorize that mutuality in teams endogenously equips and empowers team members to act collectively in the face of hardships, to find ways to cope with and adapt to adverse situations, and to grow from these experiences. Thus, we posit that change in the emotional culture of joy leads to change in team resilience capacity through change in mutuality in teams.

Hypothesis 2. Change in mutuality mediates the positive relationship between change in the emotional culture of joy and change in team resilience capacity.

2.5 | The mediating role of reflexivity

BnB theory suggests that positive emotions broaden cognitive awareness and build cognitive resources, which in turn enhance positive coping repertoires and reduce maladaptation (Fredrickson, 2003; Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008; Garland et al., 2010). Concerning the path from positive emotions to cognitive resources, BnB theory predicts that positive emotions broaden momentary thought-action repertoires, which enable broadened attention and more flexible cognition (Fredrickson, 2001). Specifically, the emotion of joy inspires people to explore, play (including intellectual play), and integrate (Fredrickson, 1998; Fredrickson & Branigan, 2005). Thus, people who experience joy are more open to information and show more flexible, integrative and creative modes of perception and thinking (Estrada, Isen, & Young, 1997; Fredrickson, 2013; Fredrickson & Branigan, 2005; Isen & Daubman, 1984; Isen, Rosenzweig, & Young, 1991). Consistent with this line of theorizing, a meta-analysis indicates that mood states, which are activating and associated with approach motivation, such as joy, had the strongest positive effect on creative performance, whereas deactivating positive emotional states, such as serenity, had no effect on creative performance (Baas, De Dreu, & Nijstad, 2008). Concentrating on the team level of analysis, Rhee (2006) found that joyful teams were more likely to build on team members' ideas. Overall, these findings suggest that teams that experience shared joy develop tendencies for broader cognitive awareness, flexible modes of thinking and stronger collective information processing.

Reflexivity is a cognitive process in teams that we believe adequately captures the BnB theoretical foundation. Team reflexivity refers to "the extent to which group members overtly reflect upon and communicate about the group's objectives, strategies, and processes" (Schippers, Homan, & Knippenberg, 2013, p. 7). Understood as collective reflection, team reflexivity encompasses situational awareness, overt exploration, and collective information sharing (Schippers, den Hartog, & Koopman, 2007; Schippers, Edmondson, & West, 2014). We suggest that these elements are fostered through the shared experience of joy. First, according to BnB theory, joy broadens awareness and creates the urge for intellectual play and exploration, which may foster open collective reflection (Fredrickson & Levenson, 1998). Furthermore, BnB theory suggests that when team members experience positive emotions, they have greater capacity to broaden and deepen their perspectives, which facilitates integrative discussion and collective information processing (Fredrickson, 2013; Fredrickson & Branigan, 2005). Prior research indicates that collective positive emotions positively relate to teams' information elaboration (Pillay, Park, Kim, & Lee, 2020) and that joyful emotions foster team reflexivity (Shin, 2014; Shin, Kim, & Lee, 2016). Overall, these findings suggest that change in the emotional culture of joy may lead to subsequent change in team reflexivity.

Reflexivity, in turn, is likely to foster team adaptation and build team resilience capacity. Particularly in situations of change and crisis, team members must collectively update and question their existing mental schemes to develop resilience (Maitlis & Sonenshein, 2010;

Weick, 1993). Team reflective behaviors enable teams to develop updated and shared situation awareness (Gomes, Borges, Huber, & Carvalho, 2014), which enables the identification of signals of disruptions and direct attention (Weick & Sutcliffe, 2006; Williams, Gruber, Sutcliffe, Shepherd, & Zhao, 2017). When environmental conditions change or difficulties emerge, it is important to reconsider initial strategies (Marks, Mathieu, & Zaccaro, 2001), as teams' routines may not be adequate for team functioning in adverse situations (Schippers, Den Hartog, Koopman, & Wienk, 2003; Stoverink, Kirkman, Mistry, & Rosen, 2020). In this regard, team reflexivity helps teams interpret signals from the environment and identify needs for the modification and adaption of team behaviors (Crossan, Lane, & White, 1999; Schippers, West, & Dawson, 2015). Prior research has shown that teams that engage in collective information processing are more likely to develop creative and innovative solutions to problems (Carmeli, Dutton, & Hardin, 2015; Schippers, West, & Dawson, 2015). In line with this finding, teams high on reflexivity tend to experience less psychological strain (Schippers, West, & Dawson, 2015), potentially because these teams have more cognitive resources to develop effective action plans for handling adverse environmental demands (Schippers, Edmondson, & West, 2014), which links to the build hypothesis of BnB theory. Finally, engaging in deep and open reflection in debriefs may also help teams learn and grow from past experience (Stoverink, Kirkman, Mistry, & Rosen, 2020), thereby strengthening resilience capacity. Consistent with this line of reasoning, studies have suggested that reflective communication and team reflexivity may facilitate team resilience (Gomes, Borges, Huber, & Carvalho, 2014; Siegel & Schraagen, 2017). Based on the build hypothesis of BnB theory (Fredrickson, 2001; Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008), we suggest that positive change in emotional collective resources may trigger additional positive change in collective cognitive resources, which drives growth in team resilience.

Hypothesis 3. Change in team reflexivity mediates the positive relationship between change in the emotional culture of joy and change in team resilience capacity.

3 | METHOD

To test the hypotheses of our conceptual model, we relied on a survey-based study with teams from a company that operates in the services sector in Germany and primarily provides childcare. In Germany, this sector has been plagued by adversity in recent years (The New York Times, 2015). Moreover, the company noted that its work teams were currently facing challenges such as increased role enrichment and changes resulting from increased digitalization. Thus, the context in general and this company in particular seemed appropriate for studying resilience capacity.

We collected data at two points in time with a time lag of 1 year. We decided on this time lag for the following reason. To strengthen its human capital, the company introduced a corporate developmental program shortly after our survey in Year 1. Strong management

attention was given to the topic of team resilience and how to enable excellent teamwork despite challenging work conditions. The developmental program included specifically designed training offerings, information and articles on the topic in the corporate magazine, information on the topic on the corporate intranet and expert talks by the company's leaders. Importantly, the human resources department asked each team to specify and implement activities to improve its teamwork based on the results of the survey in Year 1. However, this was not a standardized process, and the human resources department imposed no guidelines concerning what these team activities should look like, as the general corporate philosophy was that team leadership should be empowered to pursue what is best for the team and be able to address team-specific needs. As a result, the implemented activities looked different for each team. In our study design, we provided enough time for these activities to potentially take effect. Fredrickson (2013) argued that empirical studies on the build hypothesis of BnB theory require time for resources to grow. Additionally, resources such as teams' emotional cultures are deeply ingrained and change slowly (Barsade & O'Neill, 2014). For these empirical and theoretical reasons, we considered a time lag of 1 year to be suitable for our study.

3.1 | Sample

In Year 1 (T1), 1427 employees, and, in Year 2 (T2), 1406 employees, organized into 135 teams, were invited to participate in the survey. At T1, we received 945 completed questionnaires, resulting in a response rate of 66.2%. At T2, we received 773 completed questionnaires, resulting in a response rate of 55.0%.

Because we aimed for an analysis at the team level, we excluded those teams from which we received fewer than two completed questionnaires from team members in each wave. In a second step, we matched the answers from teams in T1 with answers from teams in T2. Our final data set contained 91 teams with feedback from 711 individuals in T1 and 580 individuals in T2. The majority of the sample was female, which is typical for the care sector (Barsade & O'Neill, 2014). The mean team size was 11.23 members. The data set contained teams of two different job types: either the teams worked in childcare centers and were responsible for childcare or they worked on administrative and consulting tasks such as personal development, accounting, or client consulting. Of the 91 teams, 31 teams worked on administrative and consulting tasks, and 60 teams worked in childcare.

3.2 | Measures

We used established scales from the literature to assess our variables. Furthermore, we relied on team members' ratings to assess the variables. Specifically, we asked team members to assess the respective construct with regard to the team in which they worked. As the questionnaire was distributed in the German language, we

relied on common translation and back-translation procedures (Brislin, 1990). The respondents answered the items on a 5-point Likert scale (unless stated otherwise, 1 = *strongly disagree* to 5 = *strongly agree*).

3.3 | Emotional culture of joy

We used the scale for the emotional culture of joy introduced and validated by Barsade and O'Neill (2014). In the main part of the manuscript, Barsade and O'Neill (2014) investigate the emotional culture of companionate love. However, to test whether discrete emotional culture concepts are separable constructs, Barsade and O'Neill (2014) conducted an additional study in which they identified the emotional culture of joy as a discrete emotional culture. To investigate our variable of interest, we relied on the measurement scale for emotional culture of joy that Barsade and O'Neill (2014) provide in their Online Appendix C. Based on this scale, team members indicated the extent to which their team members expressed emotions of joy at work. As such, this scale captures the actual expression of emotions, which can be done through spoken words, facial expressions, body language, auditory tone, or even touch (O'Neill & Rothbard, 2017). We focus on team members' recognition of colleagues' emotions, as the effects of interpersonal emotional experiences are dependent on the perception and interpretation of affective cues (Ashkanasy, 2003). We used a 5-point Likert scale from 1 = *never* to 5 = *very often* and asked about four discrete emotions including joy and excitement. The scale had Cronbach's α values of .84 in T1 and .83 in T2.

3.4 | Mutuality

To assess our first mediator, we used the scale for mutuality developed and validated by Carmeli (2009), which has been used and received further validation by previous studies (e.g., Carmeli, Brueller, & Dutton, 2009; Warren & Warren, 2019). The different items were slightly adapted to the team context. The scale consists of four items that capture the degree of mutuality in a relationship. Sample items include "There is a sense of empathy among us" and "We are committed to one another at work." Cronbach's α values were .89 in T1 and .87 in T2.

3.5 | Team reflexivity

We relied on the team reflexivity scale used by Schippers, Homan, and Knippenberg (2013), which was validated by Schippers, den Hartog, and Koopman (2007). The scale addresses the degree to which team members reflect their goals and approaches. It consists of four items, and a sample item is "The team often reviews its objectives." Cronbach's α values were .78 in T1 and .79 in T2.

3.5.1 | Team resilience capacity

We relied on the German version of the Connor–Davidson Resilience Scale (Connor & Davidson, 2003) to assess team resilience capacity. Specifically, we used the 10-item version validated by Campbell-Sills and Stein (2007). In line with our theorizing and our conceptualization of resilience, this scale captures resilience capacity.

In our study, we wanted to assess the teams' resilience capacity; however, the individual was the source of the data, and the original scale used the individual as a referent. We relied on recommendations by Chan (1998) and used a referent-shift consensus model to ask team members to assess their team's resilience. As such, we changed the referent from the individual to the team so that the team members rated their team's resilience. A sample item from the scale is "We are able to adapt to change." Cronbach's α values were .91 (T1) and .88 (T2).

3.6 | Aggregation

The constructs considered in this investigation referred to the team as the unit of analysis; however, the individual was the source of the data. We relied on Chan's (1998) framework to specify how lower-level data could generate high-level constructs. As such, we aggregated individual scores into a team mean score. To justify the validity of this aggregation, we followed the recommendations of James, Demaree, and Wolf (1984) and calculated the within-group agreement index $r_{wg(j)}$ using the rectangular (uniform) null distribution (James, Demaree, & Wolf, 1984). This index provides information on the degree to which raters agree on their ratings of a team construct. The within-group agreement index $r_{wg(j)}$ for the emotional culture of joy was .93 in T1 and .93 in T2. The within-group agreement index $r_{wg(j)}$ for mutuality was .92 in T1 and .94 in T2. For reflexivity, the within-group agreement index $r_{wg(j)}$ was .88 in T1 and .84 in T2. Finally, the within-group agreement index $r_{wg(j)}$ for team resilience was .97 in T1 and .97 in T2. As our sample included teams of different sizes, we checked whether the index was low for some measures in some teams. This was not found to be the case. Given this homogeneity of within-team ratings, we aggregated the data by calculating the arithmetic mean.

3.7 | Control variables

We controlled for team size (excluding team leaders and absent team members), as prior research has suggested that team size may impact team resilience because of its influence on team processes (Giannoccaro, Massari, & Carbone, 2018). Because we had two different types of jobs in our sample, we wanted to control for whether this difference influenced our results. Therefore, we controlled for job type in the form of a dichotomous variable (0 = administrative and consulting work, 1 = childcare work). All control variables were included in all of our calculations.

3.8 | Common method variance

We measured our constructs based on team members' evaluations, as we believe that this is the most appropriate source by which to judge our constructs of interest. Although we measured our variables based on the same source, we suggest that common method variance is not a substantial problem in our two-wave study design. Our study focuses on within-team changes using LCSs. This temporal and methodological separation of variables is likely to prevent many problems arising from consistency motifs, idiosyncratic implicit theories, or social desirability tendencies (Podsakoff, MacKenzie, & Podsakoff, 2012). Nevertheless, we paid thorough attention to avoiding common method variance throughout our research process (Podsakoff, MacKenzie, & Podsakoff, 2012). Concerning procedural remedies, we separated the different scales in our questionnaire and included questions on other constructs between our focal scales to prevent priming effects. To check whether these measures were effective, we used the marker variable techniques outlined by Lindell and Whitney (2001) and recommended by Schaller, Patil, and Malhotra (2015). Although such tests cannot unequivocally prove that common method variance is not present, the results of our calculations suggested that common method variance is unlikely to have had a significant impact on our results.

3.9 | Data analysis

3.9.1 | Model fit

To examine the psychometric properties of the instruments and to establish construct validity, we performed a confirmatory factor analysis (CFA) with the T1 data of the sample. Relying on recommendations provided by Hu and Bentler (1999), the results of the CFA suggested that a four-factor structure showed good fit to the data: χ^2 (203) = 525.960**, comparative fit index (CFI) = .959, root mean square error of approximation (RMSEA) = .047, and standardized root mean square residual (SRMR) = .0384. The four-factor structure showed better fit than a single-factor structure: χ^2 (209) = 2312.036**, CFI = .735, RMSEA = .119, SRMR = .0825. This result was further supported by a chi-square difference test, which showed that our model had a significantly better fit to the model than a single-factor model.

3.10 | LCS modeling

To test our hypotheses, we employed LCS modeling (McArdle, 2009; Selig & Preacher, 2009) using the structural equation modeling framework in Mplus on the basis of item-level data (using Mplus version 8.4; Muthén & Muthén, 1998–2017). LCS models provide flexibility for modeling change in a variety of ways (Grimm, Ram, & Estabrook, 2016) and are well suited to investigate hypotheses in

which changes in one construct are predictors of changes in another construct (Grimm, An, McArdle, Zonderman, & Resnick, 2012; Henk & Castro-Schilo, 2016; Selig & Preacher, 2009). An advantage of LCS models is that they eliminate measurement errors by specifying multiple-indicator latent variables (McArdle, 2009). In addition, the usage of LCS is advantageous compared with the usage of simple change scores, which are associated with several methodological problems (Edwards, 2001; Henk & Castro-Schilo, 2016). Thus, researchers increasingly use LCS models to analyze change-to-change relationships on the basis of two-wave or longitudinal data (e.g., Hoppe, Toker, Schachler, & Ziegler, 2017; Smith, Gillespie, Callan, Fitzsimmons, & Paulsen, 2017; van de Brake, Walter, Rink, Essens, & van der Vegt, 2018).[1]

In this study, we relied on Henk and Castro-Schilo's (2016) specification of the LCS framework for analysis of change-to-change relationships with two-wave data (see Henk & Castro-Schilo, 2016, for a detailed description as well as the Mplus scripts used to fit the model to the data). Furthermore, we implemented the recommendations of Selig and Preacher (2009) to investigate the hypothesized mediations. We modeled change in the emotional culture of joy, change in mutuality, change in team reflexivity, and change in team resilience capacity as latent variables. To create the four LCSs, we regressed all latent T2 variables on their corresponding latent T1 variables with a fixed path of 1. Additionally, we defined the LCSs by their corresponding T2 variable with a fixed loading of 1. The resulting LCSs represented within-team changes across two time points and were free of measurement error (McArdle, 2009). In our hypothesized model, initial levels of the latent constructs (i.e., emotional culture of joy in T1, mutuality in T1, reflexivity in T1, and team resilience in T1) were allowed to correlate with their corresponding LCSs; however, the LCSs were not allowed to correlate with the initial levels of other latent constructs. Furthermore, the latent constructs were allowed to correlate with each other at baseline, and the variances of the latent constructs at baseline and the variances and residual variances of the LCSs were estimated. The variance of the latent variables at T2 was set to 0. The T1 and T2 unique factor covariances were specified, and their unique factor variances were set to equality to produce strict factorial invariance (Wang et al., 2017). The means of the latent variables were set to 0. The means of the LCSs were estimated.

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[1] LCS models are based on a structural equation modeling framework and model change as a latent variable. The LCS represents within-unit change (i.e., increase or decrease) concerning the variable of interest between two adjacent measurement occasions (Henk & Castro-Schilo, 2016). LCS modeling approaches have several advantages over other approaches in the study of change (Castro-Schilo & Grimm, 2018; Liu, Mo, Song, & Wang, 2016). First, LCSs are perfectly reliable, that is, free of measurement error, as the true score is separated from the random error of measurement (Henk & Castro-Schilo, 2016). Second, LCSs capture within-unit changes and can provide information about unit-specific differences in change (Selig & Preacher, 2009). Third, LCSs allow us to investigate change-to-change relationships instead of level-to-level relationships, and the change score spans over one time interval (Liu, Mo, Song, & Wang, 2016; McArdle, 2009). Thus, researchers recommend LCS models over modeling approaches such as simple change scores or residual change scores, as these may contain measurement error or explain deviation from expected values instead of within-unit change. (Castro-Schilo & Grimm, 2018; Henk & Castro-Schilo, 2016).

4 | RESULTS

Table 1 displays the means, standard deviations, bivariate correlations, and Cronbach's alphas of the study's variables at T1 and T2.

Regarding the temporal stability of the variables in our sample, we noted that the correlations of our focal variables across the two measurements occasions seemed to show moderate stability over time, which is relatively common in longitudinal studies (Usami, Hayes, & McArdle, 2016; van de Brake, Walter, Rink, Essens, & van der Vegt, 2018). Notably, however, these bivariate correlations represented moderate stability at the between-team level, whereas we were interested in within-team changes. Thus, we first investigated the degree of within-team stability regarding the variables of interest. Specifically, we calculated the means and variances of our LCSs based on univariate LCS models. In general, significant means of an LCS suggest that, on average, the manifestation of the constructs under study increased (if the mean is positive) or decreased (if the mean is negative) over time. Furthermore, significant variances suggest that there are entity-specific differences in this change, such that not every entity under study (in our research, not every team) necessarily changes in the same direction and/or with the same magnitude (Henk & Castro-Schilo, 2016). Based on the four univariate LCS models, we found that whereas none of the LCSs of the constructs had significant means, all the LCSs of our four variables had significant variances ($p < .01$). This finding suggests that there was significant heterogeneity in the amount of within-team change in the emotional culture of joy, mutuality, reflexivity, and team resilience capacity, meaning that some teams increased while others decreased, even though there was no clear increasing or decreasing trend in the overall sample. This finding supported the value of a multivariate analysis to investigate how change in the emotional culture of joy (i.e., Δjoy) was related to change in team resilience capacity (i.e., Δteam resilience capacity) via change in mutuality (i.e., Δmutuality) and change in reflexivity (i.e., Δreflexivity).

To test our hypotheses, we calculated two different models. To test Hypothesis 1, we regressed Δteam resilience capacity on Δjoy.

To test Hypothesis 2 and Hypothesis 3, we calculated a model with two parallel mediators in which the effects of Δjoy on Δteam resilience capacity were mediated by both Δmutuality and Δreflexivity. To test for the direct and indirect effects, we calculated the 95% bias-corrected bootstrap confidence intervals in Mplus. We ran the LCS models with 10,000 samples. Hypothesis 1 predicted a direct relationship in which change in the emotional culture of joy predicts change in team resilience capacity. In line with this hypothesis, we found that a higher change in the emotional culture of joy predicted a higher change in team resilience capacity ($b = .32$; 95% CI [.143, .652]; $p < .01$). Hypothesis 2 predicted that change in mutuality mediated the positive relationship between change in the emotional culture of joy and change in team resilience capacity. We found a significant indirect effect of change in the emotional culture of joy on change in team resilience capacity via change in mutuality ($b = .16$; 95% CI [.077, .341]; $p < .01$). Hypothesis 3 predicted that change in reflexivity mediated the positive relationship between change in the emotional culture of joy and change in team resilience. We found a significant indirect effect of change in the emotional culture of joy on change in team resilience capacity via change in reflexivity ($b = .07$; 95% CI [−.008, .406]; $p = .09$). Table 2 shows the results of this LCS model with two parallel mediators, which reflects our final model, shown in Figure 1.

4.1 | Post-hoc analysis

To assess alternative explanations that potentially derived from our data, we also tested other models. Specifically, we tested two different serial mediation models and compared their fit to the fit of our hypothesized model with two parallel mediators. The first alternative model specifies relationships in which change in the emotional culture of joy influences change in mutuality, which sequentially influences change in reflexivity, which finally influences change in team resilience capacity. The second alternative model specifies relationships in which change in the emotional culture of joy influences change in

TABLE 1 Means, standard deviations (SD), correlations, and Cronbach's alphas for the study variables

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Team size	11.23	5.79										
2. Job type	.66	.48	.30**									
3. Emotional culture of joy T1	3.97	.37	−.07	.25*	**.84**							
4. Mutuality T1	4.20	.36	−.13	.04	.71**	**.89**						
5. Team reflexivity T1	3.66	.39	.05	.29**	.63**	.60**	**.78**					
6. Team resilience T1	3.87	.28	−.27*	0.07	.71**	.75**	.62**	**.91**				
7. Emotional culture of joy T2	4.03	.33	−.01	.36**	.54**	.38**	.31**	.36**	**.83**			
8. Mutuality T2	4.24	.40	−.25*	−.15	.42**	.50**	.32**	.42**	.48**	**.87**		
9. Team reflexivity T2	3.62	.42	.07	.28**	.47**	.43**	.63**	.39**	.52**	.46**	**.79**	
10. Team resilience T2	3.88	.27	−.25*	.02	.57**	.47**	.43**	.58**	.57**	.73**	.56**	**.88**

Note: N = 91. Bold font indicates Cronbach's alpha values from correlations.
*$p < .05$ (two-tailed tests). **$p < .01$ (two-tailed tests).

TABLE 2 Unstandardized parameter estimates for the final model

Path	Estimate	S.E.
Predictive indirect path		
Δjoy → Δmutuality → Δteam resilience	.16**	.05
Δjoy → Δreflexivity → Δteam resilience	.07†	.04
Controls		
Team size → Δteam resilience	.00	.00
Job type → Δteam resilience	−.01	.03
Correlations		
Δjoy, joy_1	.01	.01
Δmutuality, $mutuality_1$	−.03**	.01
Δreflexivity, $reflexivity_1$	−.01	.01
Δteam resilience, $team\ resilience_1$	−.01**	.00
Intercepts		
Δjoy	.07†	.04
Δmutuality	.23**	.07
Δreflexivity	−.17*	.08
Δteam resilience	.04	.04
Residual variances		
Δjoy	.09**	.02
Δmutuality	.09**	.02
Δreflexivity	.06**	.02
Δteam resilience	.02**	.01

Note: $N = 91$; Δ denotes changes between Time 1 and Time 2; S.E. = Standard error; scores on the latent change variables fall on a continuum that includes both positive and negative changes (increases and decreases from T1 to T2). More positive scores indicate more positive changes.
$^{\dagger}p < .10.$
$^*p < .05.$ $^{**}p < .01.$

reflexivity, which sequentially influences change in mutuality, which finally influences change in team resilience capacity. To compare these three models, we relied on previous research (e.g., Petrou, Demerouti, & Schaufeli, 2018; Sung et al., 2017) and statistical recommendations by Grimm and Ram (2018), Grimm, Mazza, and Mazzocco (2016), and Henson, Reise, and Kim (2007), who recommend using the Akaike information criterion (AIC) and the sample-size adjusted Bayesian information criterion (ssBIC) for comparing nonnested models, as they are preferable over relative fit indices. When comparing models based on the AIC and ssBIC, the model with the lowest criterion is chosen as the most parsimonious (best) model (Merkle, You, & Preacher, 2016). Our hypothesized model had a better fit with the data ($\chi^2 = 1683.355$, $p = .00$, AIC = 974.514, ssBIC = 896.414) compared with the two alternative models ($\chi^2 = 1688.223$, $p = .00$, AIC = 979.382, ssBIC = 901.282 and $\chi^2 = 1687.193$, $p = .00$, AIC = 978.352, ssBIC = 900.252). These results lend further confidence to the appropriateness of our model specification and the underlying theoretical idea of resource caravans.

5 | DISCUSSION

This paper developed and examined a conceptual model in which change in the emotional culture of joy leads to change in team resilience capacity via change in social and cognitive mechanisms (i.e., mutuality and reflexivity). The results from a two-wave study with 91 teams indicate that increases in the emotional culture of joy help cultivate both mutuality in relationships and reflexivity, which in turn enhance team resilience capacity. With our focused theory building and concentrating on teams' positive psychological capacity, we contribute to the literature in the field of positive organizational behavior (Bakker & Schaufeli, 2008; Luthans, 2002; Wright, 2003). Specifically, we advance the research on resilience and work teams by revealing the dynamic emotional, social, and cognitive mechanisms that underlie the development of more resilient work teams.

5.1 | Theoretical implications

Our study sheds light on the dynamic mechanisms that may foster team resilience in organizational settings. Our results illustrate how growth in positive emotional experiences fosters consequential resource growth in psychological resources such as team resilience capacity via growth in social and cognitive resources. Building on COR theory (Hobfoll, 1989; Hobfoll, Halbesleben, Neveu, & Westman, 2018) and BnB theory (Fredrickson, 2001, 2013), we advance the research and theory of team resilience (Gucciardi et al., 2018; Stoverink, Kirkman, Mistry, & Rosen, 2020).

First, our study answers scholarly calls for empirical investigations of the antecedents of team resilience capacity (King, Newman, & Luthans, 2016; Stoverink, Kirkman, Mistry, & Rosen, 2020). We provide further insights into how teams in organizations can thrive and grow in the face of adversity by focusing on the role of team resources. We advocate that to increase team resilience, organizations must consider a combination of affective, social/relational, and cognitive factors as, together, these mechanisms can most efficiently foster team resilience capacity. We identify specific collective resources that may lead to growth in team resilience capacity. We highlight the positive effect of positive emotional cultures and thus link to the emerging research on emotional culture in organizations (Barsade & O'Neill, 2014; O'Neill & Rothbard, 2017). The results of our study are in line with BnB theory, which predicts that positive emotions foster resilience (Fredrickson, 2001) and further relate to prior research that has shown that positive collective emotions can promote positive team interactions (Tse & Dasborough, 2008; Tse, Dasborough, & Ashkanasy, 2008). We extend this important research by focusing on a specific positive emotional experience, the emotional culture of joy, as scholars have highlighted that distinguishing among different forms of positive emotional experiences is important because these forms may differ in their mechanisms and effects (Fredrickson & Cohn, 2008; Lindebaum & Jordan, 2012; Menges & Kilduff, 2015; Shaver, Schwartz, Kirson, & O'Connor, 1987). Our results suggest that positive and activating emotional cultures that embrace an approach

motivation such as the emotional culture of joy may help teams face adversity, develop adaptive mechanisms, and grow from stressful experiences. Furthermore, we answer scholarly calls to shed light on the mechanisms underlying resilience in organizations (Caza, Barton, Christianson, & Sutcliffe, 2020) and delineate how social and cognitive mechanisms serve to translate an emotional culture of joy into higher levels of team resilience.

In this regard, we uncover the central role of social mechanisms and highlight the importance of positive forms of human relations in the workplace. We show that growth in a team's emotional culture of joy leads to growth in team resilience capacity via growth in mutuality, which is an important expression of high-quality work relations. Other than an instrumental form of interaction, mutuality marks a generative form of interrelating that cultivates a feeling of connectedness, worth, and belongingness. Therefore, mutuality can be generative and a cultivator of psychological resources, as suggested by the relational resourcing view (Carmeli, Dutton, & Hardin, 2015). In times of adversity, empathetic and caring relationships can be a source of protection and felt safety (Kahn, 2001). As mutuality can equip team members to engage and adapt, it is an important driver of team resilience capacity (Carmeli, Jones, & Binyamin, 2016; Lawrence & Maitlis, 2012). Moreover, we specify a cognitive mechanism underlying team resilience and show that growth in the emotional culture of joy also nurtures growth in team resilience capacity through growth in team reflexivity. We thus extend the research that has identified the connection between reflexivity and collective strain (Schippers, West, & Dawson, 2015) and that has investigated the relationship between team reflexivity and team adaption (Konradt, Schippers, Garbers, & Steenfatt, 2015) and, in particular, resilient team functioning (Siegel & Schraagen, 2017). Our research echoes the theorizing that creating situational awareness to identify needs for adjustments enhances team capacity for resilience (Gucciardi et al., 2018) as well as of the understanding of team reflexivity as an important transition process (Marks, Mathieu, & Zaccaro, 2001). We suggest that the positive effect of this transition process unfolds through two pathways. First, when facing adversity, reflexivity helps teams create situational awareness and develop adequate actions for adaptation that might be needed to address new situations. Second, following an experience of setbacks, reflexivity helps teams learn from their experiences and implement procedural modifications if needed. As such, team reflexivity may be of crucial importance in the minimizing phase and the mending phase of the team resilience process (Alliger, Cerasoli, Tannenbaum, & Vessey, 2015; Stoverink, Kirkman, Mistry, & Rosen, 2020). However, the findings of our final conceptual model with two mediators suggest that a humanizing form of interrelating, that is, mutuality, may be more important than cognitive pathways in developing team resilience capacity. This result leads to the conclusion that a pure cognitive focus may not be sufficient in supporting a team's ability to handle adversity as a team. An explanation for this phenomenon could be that the experience of adversity highlights feelings of vulnerability and triggers team members' needs to feel sheltered and supported. A pure cognitive focus may not address such needs. In contrast, caring interactions and a joint focus on

relationships may allow team members to leverage collective resources (Carmeli, Dutton, & Hardin, 2015) and provide shelter for one another (Lawrence & Maitlis, 2012).

As a second important contribution, our two-wave empirical study design allowed us to shed light on within-team change in team resilience. This point is important as teams are dynamic entities and the research often—implicitly or explicitly—concerns change that occurs within these entities and not between these entities. However, this point is often not reflected in empirical study designs, which primarily seek to understand individual team experiences by examining solely between-team differences (Matusik, Hollenbeck, Matta, & Oh, 2019). Analytical approaches that do not segregate within-unit changes from between-unit differences often do not exemplify well underlying theoretical processes. Our investigation provides a first step in better understanding the underlying dynamics in the development of team resilience. With our LCS modeling, we not only consider the two-wave nature of the data but also model within-team variability instead of between-team variability. We highlight how within-construct evolution in affective, social, and cognitive resources may drive within-construct change in a psychological resource. Thus, our findings underscore that not only baseline levels might matter. Instead, we show that teams may grow their team resilience capacity through continuously nurturing their emotional culture of joy, as this action unleashes changes in mutuality and reflexivity, regardless of prior levels. This novel investigation can inspire and open new windows for opportunities that move from "simple" linkages to explaining changes over time. In doing so, our findings add to a more comprehensive theory of positive organizational behavior (Luthans & Avolio, 2009) by providing a dynamic perspective of team resilience capacity and its antecedents.

Finally, our study contributes to the theory development on resilience in the workplace, which has suffered from limited theoretical grounding (Hartmann, Weiss, Newman, & Hoegl, 2020; King, Newman, & Luthans, 2016). As an overarching theoretical framework, we rely on COR theory to theorize our dual pathways mediation model. COR theory argues for the existence of so-called passageways (Hobfoll, 2011a). These passageways refer to shared conditions in organizations, such as shared culture, which might accelerate change in other resources (Hobfoll, Halbesleben, Neveu, & Westman, 2018). As these passageways create overall conditions, they also explain why resources tend to grow or decline in packages and not individually (Hobfoll, 2011a). We pinpoint the emotional culture of joy as such passageway, which fosters the accumulation of resource reservoirs. This is an interesting result given that "passageways are a relatively unexamined element of COR theory" (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014, p. 1351). As passageways foster the development of consequential resources in caravans, Hobfoll (2011a, p. 119) highlights that the "passageways concept helps explain the high correlations among resources." This argument offers an explanation for the high correlation of co-traveling resources we found in our data set and clarifies why conceptually distinct concepts might correlate to such an extent. Overall, our study shifts the focus of COR theory from conservation to the development of resources.

Furthermore, by highlighting the emotional culture of joy as a passageway, we build connections between the BnB and COR theories, two fundamental theories concerning resilience in the workplace. To explicate and explain the effects of the emotional culture of joy, we draw on BnB theory and extend its application to the team level of analysis as suggested by Fredrickson (2003). Specifically, our analysis is grounded on the build hypothesis, which has received only limited attention in empirical research (Fredrickson, 2013), even though it is well suited to helping shed light on the dynamics underlying the development of team resilience. Consistent with previous theorizing and research (Fredrickson & Joiner, 2002; Ouweneel, Le Blanc, & Schaufeli, 2012; Salanova, Bakker, & Llorens, 2006; Walter & Bruch, 2008), our results highlight that change in positive emotions can unleash upward spiraling effects that lead to consequential growth in other resources. Much of the prior research on BnB theory has focused on the positive effects for physiological processes such as vagal tone (Kok & Fredrickson, 2010). Complementing these findings, some studies have shown that positive emotional experiences may also nurture psychological processes in general (Fredrickson & Joiner, 2002), in academic contexts (Ouweneel, Le Blanc, & Schaufeli, 2011), or in workplace contexts (Ouweneel, Le Blanc, & Schaufeli, 2012; Salanova, Bakker, & Llorens, 2006). For example, Salanova, Bakker, and Llorens (2006) showed a reciprocal positive relationship between organizational and personal resources and work-related flow, resulting in mutual positive reinforcement. The results of our study are in line with such findings and demonstrate that such upward spiraling effects can also be observed at the team level of analysis. Thus, our study provides empirical evidence for the build hypothesis of BnB theory, the core arguments of which are in line with the idea of resource gain spirals suggested by COR theory. Finally, our results suggested that change in positive forms of interrelating accounted for more change in team resilience capacity compared with change in cognitive pathways. This finding highlights the argument of the relational resourcing view, which states that positive and humanized forms of relating are an important catalyst for adaptive and resilient team capacity (Carmeli, Dutton, & Hardin, 2015). Positive social relations can endogenously equip teams with resources that are needed to cope, adapt, and grow (Carmeli, Jones, & Binyamin, 2016). Importantly, they further create a holding environment by providing a feeling of worth and care to people in that relationship (Dutton & Heaphy, 2003; Kahn, 2001). We argue that these mechanisms are of high importance amidst adversity. Thus, whereas cognitive pathways are certainly an important means of enabling team functioning, positive forms of interrelating might have a higher impact in times of adversity.

5.2 | Practical implications

Our research also provides relevant practical recommendations. In these dynamic times, it is very likely that teams will face a form of adversity or severe challenge at least once in their working life. Our research offers guidance for organizations that want to develop a nurturing ground for resilience. In the following, we provide hands-on suggestions for teams that want to strengthen their resilience capacity. First, we highlight that a positive emotional context is beneficial for team resilience as it nurtures social and cognitive processes, which ultimately leads to resilience. Our findings suggest that teams may grow their capacity for resilience by investing effort into affect-oriented management and by growing an emotional team culture of joy. This is an important finding given that in organizational contexts, people often feel more comfortable expressing negative emotions such as anger than positive emotions such as joy (Barsade & O'Neill, 2016). Thus, fostering feeling mechanisms and normative enactment is important to foster the expression of joy among employees (Barsade & O'Neill, 2014). To create important feeling mechanisms, team activities such as joking or joyful team events can be helpful if they break tensions and reduce frustration (Marks, Mathieu, & Zaccaro, 2001). However, to create a collective culture of positive emotions, emotions must also be shared and enacted. This sharing could be enforced by appropriate group norms that either create the need to comply or put rituals into place that facilitate the sharing of positive emotions (Barsade & O'Neill, 2014).

Furthermore, our findings suggest that devoting time to establishing nurturing relationships in teams is key to enabling organizational functioning, as relationships can provide resources that allow teams to better cope with challenges. Lilius et al. (2008) noted that compassionate interpersonal acts do not have to be extensive to create a positive impact on the relationship. As such, even small acts of showing understanding for a colleague's personal situation can help build generative relationships at work (Lilius, Worline, Dutton, Kanov, & Maitlis, 2011). This type of personal sharing, however, requires a normative environment that allows for such sharing and is further facilitated by concrete guidelines for interaction that specify content parameters and boundary conditions (Lee, Mazmanian, & Perlow, 2020; Lilius, Worline, Dutton, Kanov, & Maitlis, 2011). Furthermore, managers must also act virtuously if they want virtue to spread (Owens & Hekman, 2016). As such, managerial role modeling and an organizational culture that highlights the value of human connections and mutuality can serve as important steps toward establishing positive social connections and an ethic of care.

Finally, our study further highlights the value of increases in reflexivity. As such, teams can benefit from engaging in monitoring and planning to create shared situational awareness and identify potential needs for adjustment. However, teams do not necessarily engage in reflection spontaneously (Schippers, Homan, & Knippenberg, 2013). Therefore, establishing team routines that facilitate cognitive exchange, such as regular reflective team meetings and/or after-action reviews, may help promote reflexivity (Salas, Reyes, & McDaniel, 2018). Nevertheless, managers may be hesitant to implement such routines as they require time, which is often a limited resource. Allen, Reiter-Palmon, Crowe, and Scott (2018) noted that a clear focus on key issues, specified reflection objectives, and a safe team climate maximize the effectiveness of such team reflections.

5.3 | Limitations and future research

Although our study provides important insights, some limitations should be noted. We investigated multiple teams from a single organization. Hence, certain distinctive characteristics of the investigated company may have had an impact on the results. For instance, the organization we investigated focused on care-related activities. Furthermore, the organization we studied operated in the German cultural context, which might have had an effect on our results, even though the relationship between other forms of positive interrelating and team resilience capacity has also been established in other cultural contexts and within other occupations (e.g., Carmeli, Friedman, & Tishler, 2013; Meneghel, Martínez, & Salanova, 2016; Stephens, Heaphy, Carmeli, Spreitzer, & Dutton, 2013). Although we are confident that our results hold implications for different organizational and cultural contexts, constructive replications in other contextual settings are warranted to further probe and refine the theory developed in this study (Hoegl & Hartmann, 2020).

A major methodological strength of our study is that we were able to investigate within-team change with the help of an LCS modeling approach. As such, we were able to make inferences about the dynamics underlying the development of team resilience capacity and investigated changes within teams. Clearly, team members' turnover may affect changes in team resilience capacity, which we could not test here. Therefore, we encourage further research on this issue, particularly on mechanisms of socialization within a team, which make it likely that a team will maintain its core identity, even if single team members change (Rink, Kane, Ellemers, & van der Vegt, 2013). Moreover, no causal inferences can be made based on our data, as all the changes we investigated occurred in the same time interval. A longitudinal design or a more controlled field experiment may help test the causality behind the hypothesized relationships and may be well suited to minimize confounding effects, such as turnover.

In our paper, we have argued that change in an emotional culture of joy may foster change in team resilience. Prior research on group emotions and group emotional cultures suggests that different positive emotions might lead to distinct effects (Fredrickson & Cohn, 2008; Menges & Kilduff, 2015; O'Neill & Rothbard, 2017). Thus, it would be worthwhile to investigate the effects of other positive emotional cultures, specifically those that lead to low activation and do not promote actions. For example, it would be interesting to investigate whether positive emotions of different levels of activation are related to different aspects of resilience, such as stress coping and adaptation. Furthermore, shared emotional cultures may result from different underlying processes; it appears worthwhile to investigate how these processes underlying the formation of shared emotional cultures, such as emotional contagion or empathy, influence the nature and embodiment of the emotional cultures. For example, in the case of the emotional culture of joy, empathizing may underscore feelings of safety (Kahn, 2001; Lawrence & Maitlis, 2012), whereas emotional contagion from the sharing of amusement may highlight collegiality and cooperation (Barsade, 2002; Vijayalakshmi & Bhattacharyya, 2012). In this regard, a better understanding could be gained by a more nuanced investigation of the concept. Moreover, our study provides evidence that social and cognitive mechanisms can explain why change in an emotional culture of joy links to change in team resilience. Although we pinpoint the mediating role of two specific mechanisms, that is, mutuality and reflexivity, the literature on team resilience would benefit from identifying additional mediating mechanisms. For example, the prior theory has highlighted the role of psychological safety (Stoverink, Kirkman, Mistry, & Rosen, 2020). The role of this concept could be tested in future empirical research. Finally, whereas prior research has provided evidence that positive team processes can nurture team resilience (e.g., Carmeli, Friedman, & Tishler, 2013; Stephens, Heaphy, Carmeli, Spreitzer, & Dutton, 2013), the role of moderating conditions that might influence the relationship between the antecedents and team resilience has, with exceptions (Meneghel, Martínez, & Salanova, 2016), been illustrated only to a limited degree. As such, future research could develop our knowledge on relevant contingency factors.

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REFERENCES

Allen, J. A., Reiter-Palmon, R., Crowe, J., & Scott, C. (2018). Debriefs: Teams learning from doing in context. *American Psychologist*, *73*(4), 504–516. https://doi.org/10.1037/amp0000246

Alliger, G. M., Cerasoli, C. P., Tannenbaum, S. I., & Vessey, W. B. (2015). Team resilience: How teams flourish under pressure. *Organizational Dynamics*, *44*(3), 176–184. https://doi.org/10.1016/j.orgdyn.2015.05.003

Ashkanasy, N. M. (2003). Emotions in organizations: A multilevel perspective. In *Multi-level issues in organizational behavior and strategy* (Vol. 2) (pp. 9–54). Oxford: JAI.

Baas, M., De Dreu, C. K., & Nijstad, B. A. (2008). A meta-analysis of 25 years of mood-creativity research: Hedonic tone, activation, or regulatory focus? *Psychological Bulletin*, *134*(6), 779–806. https://doi.org/10.1037/a0012815

Bakker, A. B., & Schaufeli, W. B. (2008). Positive organizational behavior: Engaged employees in flourishing organizations. *Journal of Organizational Behavior*, *29*(2), 147–154. https://doi.org/10.1002/job.515

Barsade, S. G. (2002). The ripple effect: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly*, *47*(4), 644–675. https://doi.org/10.2307/3094912

Barsade, S. G., & Knight, A. P. (2015). Group affect. *Annual Review of Organizational Psychology and Organizational Behavior*, *2*(1), 21–46. https://doi.org/10.1146/annurev.psych.53.100901.135156

Barsade, S. G., & O'Neill, O. A. (2014). What's love got to do with it? A longitudinal study of the culture of companionate love and employee and client outcomes in a long-term care setting. *Administrative*

Science Quarterly, *59*(4), 551–598. https://doi.org/10.1177/0001839214538636

Barsade, S. G., & O'Neill, O. A. (2016). Manage your emotional culture. *Harvard Business Review*, *94*(1), 58–66.

Barton, M. A., & Kahn, W. A. (2019). Group resilience: The place and meaning of relational pauses. *Organization Studies*, *40*(9), 1409–1429. https://doi.org/10.1177/0170840618782294

Bliese, P. D., & Britt, T. W. (2001). Social support, group consensus and stressor–strain relationships: Social context matters. *Journal of Organizational Behavior*, *22*(4), 425–436. https://doi.org/10.1002/job.95

Brislin, R. W. (1990). *Applied cross-cultural psychology* (Vol. 14). Newbury Park, CA: Sage Publications.

Britt, T. W., Shen, W., Sinclair, R. R., Grossman, M. R., & Klieger, D. M. (2016). How much do we really know about employee resilience? *Industrial and Organizational Psychology*, *9*(2), 378–404. https://doi.org/10.1017/iop.2015.107

Campbell-Sills, L., & Stein, M. B. (2007). Psychometric analysis and refinement of the Connor–Davidson Resilience Scale (CD-RISC): Validation of a 10-item measure of resilience. *Journal of Traumatic Stress*, *20*(6), 1019–1028. https://doi.org/10.1002/jts.20271

Carmeli, A. (2009). Positive work relationships, vitality, and job performance. In C. E. J. Haertel, N. M. Ashkanasy, & W. J. Zerbe (Eds.), *Research on emotion in organizations* (pp. 45–71). Bingley, UK: Emerald Publishing.

Carmeli, A., Brueller, D., & Dutton, J. E. (2009). Learning behaviours in the workplace: The role of high-quality interpersonal relationships and psychological safety. *Systems Research and Behavioral Science*, *26*(1), 81–98. https://doi.org/10.1002/sres.932

Carmeli, A., Dutton, J. E., & Hardin, A. E. (2015). Respect as an engine for new ideas: Linking respectful engagement, relational information processing and creativity among employees and teams. *Human Relations*, *68*(6), 1021–1047. https://doi.org/10.1177/0018726714550256

Carmeli, A., Friedman, Y., & Tishler, A. (2013). Cultivating a resilient top management team: The importance of relational connections and strategic decision comprehensiveness. *Safety Science*, *51*, 148–159. https://doi.org/10.1016/j.ssci.2012.06.002

Carmeli, A., Jones, C. D., & Binyamin, G. (2016). The power of caring and generativity in building strategic adaptability. *Journal of Occupational and Organizational Psychology*, *89*(1), 46–72. https://doi.org/10.1111/joop.12106

Castro-Schilo, L., & Grimm, K. J. (2018). Using residualized change versus difference scores for longitudinal research. *Journal of Social and Personal Relationships*, *35*(1), 32–58. https://doi.org/10.1177/0265407517718387

Caza, B. B., Barton, M. A., Christianson, M. K., & Sutcliffe, K. M. (2020). Conceptualizing the who, what, when, where, why and how of resilience in organizations. In E. Powley, B. Caza, & A. Caza (Eds.), *Research handbook on organizational resilience* (pp. 338–353). Northampton, MA: Edward Elgar Publishing.

Chan, D. (1998). Functional relations among constructs in the same content domain at different levels of analysis: A typology of composition models. *Journal of Applied Psychology*, *83*(2), 234–246. https://doi.org/10.1037/0021-9010.83.2.234

Chapman, M. T., Lines, R. L. J., Crane, M., Ducker, K. J., Ntoumanis, N., Peeling, P., ... Gucciardi, D. F. (2020). Team resilience: A scoping review of conceptual and empirical work. *Work & Stress*, *34*(1), 57–81. https://doi.org/10.1080/02678373.2018.1529064

Chen, S., Westman, M., & Hobfoll, S. E. (2015). The commerce and crossover of resources: Resource conservation in the service of resilience. *Stress and Health*, *31*(2), 95–105. https://doi.org/10.1002/smi.2574

Cohn, M. A., Fredrickson, B. L., Brown, S. L., Mikels, J. A., & Conway, A. M. (2009). Happiness unpacked: Positive emotions increase life satisfaction by building resilience. *Emotion*, *9*(3), 361–368. https://doi.org/10.1037/a0015952

Cole, M. S., Schaninger, W. S. Jr., & Harris, S. G. (2002). The workplace social exchange network: A multilevel, conceptual examination. *Group & Organization Management*, *27*(1), 142–167. https://doi.org/10.1177/1059601102027001008

Connor, K. M., & Davidson, J. R. T. (2003). Development of a new resilience scale: The Connor–Davidson resilience scale (CD-RISC). *Depression and Anxiety*, *18*(2), 76–82. https://doi.org/10.1002/da.10113

Cronin, M. A. (2015). Advancing the science of dynamics in groups and teams. *Organizational Psychology Review*, *5*(4), 267–269. https://doi.org/10.1177/2041386615606826

Crossan, M. M., Lane, H. W., & White, R. E. (1999). An organizational learning framework: From intuition to institution. *Academy of Management Review*, *24*(3), 522–537. https://doi.org/10.5465/amr.1999.2202135

Dovidio, J. F., Gaertner, S. L., Isen, A. M., & Lowrance, R. (1995). Group representations and intergroup bias: Positive affect, similarity, and group size. *Personality and Social Psychology Bulletin*, *21*(8), 856–865. https://doi.org/10.1177/0146167295218009

Dutton, J. E., & Heaphy, E. D. (2003). The power of high-quality connections at work. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship* (pp. 263–278). San Francisco, CA: Berrett-Koehler.

Edwards, J. R. (2001). Ten difference score myths. *Organizational Research Methods*, *4*(3), 265–287. https://doi.org/10.1177/109442810143005

Ekman, P. (1992). An argument for basic emotions. *Cognition and Emotion*, *6*(3), 169–200. https://doi.org/10.1080/02699939208411068

Estrada, C. A., Isen, A. M., & Young, M. J. (1997). Positive affect facilitates integration of information and decreases anchoring in reasoning among physicians. *Organizational Behavior and Human Decision Processes*, *72*(1), 117–135. https://doi.org/10.1006/obhd.1997.2734

Fisher, D. M., Ragsdale, J. M., & Fisher, E. C. (2019). The importance of definitional and temporal issues in the study of resilience. *Applied Psychology: An International Review*, *68*(4), 583–620. https://doi.org/10.1111/apps.12162

Fleming, P. (2005). Workers' playtime?: Boundaries and cynicism in a "culture of fun" program. *The Journal of Applied Behavioral Science*, *41*(3), 285–303. https://doi.org/10.1177/0021886305277033

Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, *2*(3), 300–319. https://doi.org/10.1037/1089-2680.2.3.300

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, *56*(3), 218–226. https://doi.org/10.1037/0003-066X.56.3.218

Fredrickson, B. L. (2003). Emotions and upward spirals. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship* (pp. 159–175). San Francisco, CA: Berrett-Koehler.

Fredrickson, B. L. (2013). Positive emotions broaden and build. In *Advances in experimental social psychology* (Vol. 47) (pp. 1–53). San Diego, CA: Elsevier.

Fredrickson, B. L. (2016). Positivity resonance as a fresh, evidence-based perspective on an age-old topic. In L. F. Barret, & J. M. Haviland-Jones (Eds.), *Handbook of emotions* (pp. 847–858). New York: Guilford Press.

Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition & Emotion*, *19*(3), 313–332. https://doi.org/10.1080/02699930441000238

Fredrickson, B. L., & Cohn, M. A. (2008). Positive emotions. In M. Lewis, J. M. Haviland-Jones, & L. F. Barrett (Eds.), *Handbook of emotions* (3rd ed.) (pp. 777–796). New York, NY, US: The Guilford Press.

Fredrickson, B. L., Cohn, M. A., Coffey, K. A., Pek, J., & Finkel, S. M. (2008). Open hearts build lives: Positive emotions, induced through loving-

kindness meditation, build consequential personal resources. *Journal of Personality and Social Psychology*, 95(5), 1045–1062. https://doi.org/10.1037/a0013262

Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science*, 13(2), 172–175. https://doi.org/10.1111/1467-9280.00431

Fredrickson, B. L., & Joiner, T. (2018). Reflections on positive emotions and upward spirals. *Perspectives on Psychological Science*, 13(2), 194–199. https://doi.org/10.1177/1745691617692106

Fredrickson, B. L., & Levenson, R. W. (1998). Positive emotions speed recovery from the cardiovascular sequelae of negative emotions. *Cognition & Emotion*, 12(2), 191–220. https://doi.org/10.1080/026999398379718

Fredrickson, B. L., Mancuso, R. A., Branigan, C., & Tugade, M. M. (2000). The undoing effect of positive emotions. *Motivation and Emotion*, 24(4), 237–258. https://doi.org/10.1023/A:1010796329158

Friedman, A., Carmeli, A., & Dutton, J. E. (2018). When does respectful engagement with one's supervisor foster help-seeking behaviors and performance? *Journal of Vocational Behavior*, 104, 184–198. https://doi.org/10.1016/j.jvb.2017.11.007

Frijda, N. H. (1986). *The emotions*. Cambridge, UK: Cambridge University Press.

Frijda, N. H. (1988). The laws of emotion. *American Psychologist*, 43(5), 349–358. https://doi.org/10.1037/0003-066X.43.5.349

Garland, E. L., Fredrickson, B. L., Kring, A. M., Johnson, D. P., Meyer, P. S., & Penn, D. L. (2010). Upward spirals of positive emotions counter downward spirals of negativity: Insights from the broaden-and-build theory and affective neuroscience on the treatment of emotion dysfunctions and deficits in psychopathology. *Clinical Psychology Review*, 30(7), 849–864. https://doi.org/10.1016/j.cpr.2010.03.002

Giannoccaro, I., Massari, G. F., & Carbone, G. (2018). Team resilience in complex and turbulent environments: The effect of size and density of social interactions. *Complexity*, 2018, 1–11. https://doi.org/10.1155/2018/1923216

Gloria, C. T., & Steinhardt, M. A. (2016). Relationships among positive emotions, coping, resilience and mental health. *Stress and Health*, 32(2), 145–156. https://doi.org/10.1002/smi.2589

Gomes, J. O., Borges, M. R., Huber, G. J., & Carvalho, P. V. R. (2014). Analysis of the resilience of team performance during a nuclear emergency response exercise. *Applied Ergonomics*, 45(3), 780–788. https://doi.org/10.1016/j.apergo.2013.10.009

Grimm, K. J., An, Y., McArdle, J. J., Zonderman, A. B., & Resnick, S. M. (2012). Recent changes leading to subsequent changes: Extensions of multivariate latent difference score models. *Structural Equation Modeling: A Multidisciplinary Journal*, 19(2), 268–292. https://doi.org/10.1080/10705511.2012.659627

Grimm, K. J., Mazza, G. L., & Mazzocco, M. M. (2016). Advances in methods for assessing longitudinal change. *Educational Psychologist*, 51(3–4), 342–353. https://doi.org/10.1080/00461520.2016.1208569

Grimm, K. J., & Ram, N. (2018). Latent growth and dynamic structural equation models. *Annual Review of Clinical Psychology*, 14, 55–89. https://doi.org/10.1146/annurev-clinpsy-050817-084840

Grimm, K. J., Ram, N., & Estabrook, R. (2016). *Growth modeling: Structural equation and multilevel modeling approaches*. New York: Guilford Publications.

Gucciardi, D. F., Crane, M., Ntoumanis, N., Parker, S. K., Thøgersen-Ntoumani, C., Ducker, K. J., ... Temby, P. (2018). The emergence of team resilience: A multilevel conceptual model of facilitating factors. *Journal of Occupational and Organizational Psychology*, 91(4), 729–768. https://doi.org/10.1111/joop.12237

Halbesleben, J. R. B., Neveu, J.-P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the "COR": Understanding the role of resources in conservation of resources theory. *Journal of Management*, 40(5), 1334–1364. https://doi.org/10.1177/0149206314527130

Hartmann, S., Weiss, M., & Hoegl, M. (2020). Team resilience in organizations: A conceptual and theoretical discussion of a team level concept. In E. Powley, B. Caza, & A. Caza (Eds.), *Research handbook on organizational resilience* (pp. 39–52). Northampton, MA: Edward Elgar Publishing.

Hartmann, S., Weiss, M., Newman, A., & Hoegl, M. (2020). Resilience in the workplace: A multilevel review and synthesis. *Applied Psychology: An International Review*, 69(3), 913–959. https://doi.org/10.1111/apps.12191

Hartwig, A., Clarke, S., Johnson, S., & Willis, S. (2020). Workplace team resilience: A systematic review and conceptual development. *Organizational Psychology Review*, 10(3–4), 169–200. https://doi.org/10.1177/2041386620919476

Henk, C. M., & Castro-Schilo, L. (2016). Preliminary detection of relations among dynamic processes with two-occasion data. *Structural Equation Modeling: A Multidisciplinary Journal*, 23(2), 180–193. https://doi.org/10.1080/10705511.2015.1030022

Henson, J. M., Reise, S. P., & Kim, K. H. (2007). Detecting mixtures from structural model differences using latent variable mixture modeling: A comparison of relative model fit statistics. *Structural Equation Modeling: A Multidisciplinary Journal*, 14(2), 202–226. https://doi.org/10.1080/10705510709336744

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513–524. https://doi.org/10.1037/0003-066X.44.3.513

Hobfoll, S. E. (2011a). Conservation of resource caravans and engaged settings. *Journal of Occupational and Organizational Psychology*, 84(1), 116–122. https://doi.org/10.1111/j.2044-8325.2010.02016.x

Hobfoll, S. E. (2011b). Conservation of resources theory: Its implication for stress, health, and resilience. In S. Folkman (Ed.), *Oxford handbook of stress, health, and coping* (pp. 127–147). Oxford, England: Oxford University Press.

Hobfoll, S. E., Halbesleben, J., Neveu, J.-P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior*, 5(1), 103–128. https://doi.org/10.1146/annurev-orgpsych-032117-104640

Hoegl, M., & Hartmann, S. (2020). Bouncing back, if not beyond: Challenges for research on resilience. *Asian Business & Management*, In press. https://doi.org/10.1057/s41291-020-00133-z

Hoppe, A., Toker, S., Schachler, V., & Ziegler, M. (2017). The effect of change in supervisor support and job control on change in vigor: Differential relationships for immigrant and native employees in Israel. *Journal of Organizational Behavior*, 38(3), 391–414. https://doi.org/10.1002/job.2151

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. https://doi.org/10.1080/10705519909540118

Isen, A. M., & Daubman, K. A. (1984). The influence of affect on categorization. *Journal of Personality and Social Psychology*, 47(6), 1206–1217. https://doi.org/10.1037/0022-3514.47.6.1206

Isen, A. M., Rosenzweig, A. S., & Young, M. J. (1991). The influence of positive affect on clinical problem solving. *Medical Decision Making*, 11(3), 221–227. https://doi.org/10.1177/0272989x9101100313

James, K. (2011). The organizational science of disaster/terrorism prevention and response: Theory-building toward the future of the field. *Journal of Organizational Behavior*, 32(7), 1013–1032. https://doi.org/10.1002/job.782

James, L. R., Demaree, R. G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology*, 69(1), 85–98. https://doi.org/10.1037/0021-9010.69.1.85

Johnson, K. J., & Fredrickson, B. L. (2005). "We all look the same to me": Positive emotions eliminate the own-race bias in face recognition. *Psychological Science*, 16(11), 875–881. https://doi.org/10.1111/j.1467-9280.2005.01631.x

Kahn, W. A. (2001). Holding environments at work. *Journal of Applied Behavioral Science*, 37(3), 260–279. https://doi.org/10.1177/0021886301373001

King, D. D., Newman, A., & Luthans, F. (2016). Not if, but when we need resilience in the workplace. *Journal of Organizational Behavior*, 37(5), 782–786. https://doi.org/10.1002/job.2063

Knight, A. P. (2015). Mood at the midpoint: Affect and change in exploratory search over time in teams that face a deadline. *Organization Science*, 26(1), 99–118. https://doi.org/10.1287/orsc.2013.0866

Knight, A. P., Menges, J. I., & Bruch, H. (2018). Organizational affective tone: A meso perspective on the origins and effects of consistent affect in organizations. *Academy of Management Journal*, 61(1), 191–219. https://doi.org/10.5465/amj.2016.0671

Kok, B. E., Coffey, K. A., Cohn, M. A., Catalino, L. I., Vacharkulksemsuk, T., Algoe, S. B., ... Fredrickson, B. L. (2013). How positive emotions build physical health: Perceived positive social connections account for the upward spiral between positive emotions and vagal tone. *Psychological Science*, 24(7), 1123–1132. https://doi.org/10.1177/0956797612470827

Kok, B. E., & Fredrickson, B. L. (2010). Upward spirals of the heart: Autonomic flexibility, as indexed by vagal tone, reciprocally and prospectively predicts positive emotions and social connectedness. *Biological Psychology*, 85(3), 432–436. https://doi.org/10.1016/j.biopsycho.2010.09.005

Konradt, U., Schippers, M. C., Garbers, Y., & Steenfatt, C. (2015). Effects of guided reflexivity and team feedback on team performance improvement: The role of team regulatory processes and cognitive emergent states. *European Journal of Work and Organizational Psychology*, 24(5), 777–795. https://doi.org/10.1080/1359432X.2015.1005608

Kossek, E. E., & Perrigino, M. B. (2016). Resilience: A review using a grounded integrated occupational approach. *Academy of Management Annals*, 10(1), 729–797. https://doi.org/10.1080/19416520.2016.1159878

Kozlowski, S. W. J., & Chao, G. T. (2018). Unpacking team process dynamics and emergent phenomena: Challenges, conceptual advances, and innovative methods. *American Psychologist*, 73(4), 576–592. https://doi.org/10.1037/amp0000245

Lawrence, T. B., & Maitlis, S. (2012). Care and possibility: Enacting an ethic of care through narrative practice. *Academy of Management Review*, 37(4), 641–663. https://doi.org/10.1177/10717919070130020601

Lee, M. Y., Mazmanian, M. A., & Perlow, L. (2020). Fostering positive relational dynamics in teams: The power of spaces and interaction scripts. *Academy of Management Journal*, 63(1), 96–123. https://doi.org/10.5465/amj.2016.0685

Lilius, J. M., Worline, M. C., Dutton, J. E., Kanov, J. M., & Maitlis, S. (2011). Understanding compassion capability. *Human Relations*, 64(7), 873–899. https://doi.org/10.1177/0018726710396250

Lilius, J. M., Worline, M. C., Maitlis, S., Kanov, J., Dutton, J. E., & Frost, P. (2008). The contours and consequences of compassion at work. *Journal of Organizational Behavior*, 29(2), 193–218. https://doi.org/10.1002/job.508

Lindebaum, D., & Jordan, P. J. (2012). Positive emotions, negative emotions, or utility of discrete emotions? *Journal of Organizational Behavior*, 33(7), 1027–1030. https://doi.org/10.1002/job.1819

Lindell, M. K., & Whitney, D. J. (2001). Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology*, 86(1), 114–121. https://doi.org/10.1037/0021-9010.86.1.114

Liu, Y., Mo, S., Song, Y., & Wang, M. (2016). Longitudinal analysis in occupational health psychology: A review and tutorial of three longitudinal modeling techniques. *Applied Psychology: An International Review*, 65(2), 379–411. https://doi.org/10.1111/apps.12055

Luthans, F. (2002). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior*, 23(6), 695–706. https://doi.org/10.1002/job.165

Luthans, F., & Avolio, B. J. (2009). The "point" of positive organizational behavior. *Journal of Organizational Behavior*, 30(2), 291–307. https://doi.org/10.1002/job.589

Luthans, F., & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of Management*, 33(3), 321–349. https://doi.org/10.1177/0149206307300814

Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. New York: Oxford University Press.

Maitlis, S., & Sonenshein, S. (2010). Sensemaking in crisis and change: Inspiration and insights from Weick (1988). *Journal of Management Studies*, 47(3), 551–580. https://doi.org/10.1111/j.1467-6486.2010.00908.x

Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and taxonomy of team processes. *Academy of Management Review*, 26(3), 356–376. https://doi.org/10.5465/AMR.2001.4845785

Mason, C. M., & Griffin, M. A. (2003). Group absenteeism and positive affective tone: A longitudinal study. *Journal of Organizational Behavior*, 24(6), 667–687. https://doi.org/10.1002/job.210

Matusik, J. G., Hollenbeck, J. R., Matta, F. K., & Oh, J. K. (2019). Dynamic systems theory and dual change score models: Seeing teams through the lens of developmental psychology. *Academy of Management Journal*, 62(6), 1760–1788. https://doi.org/10.5465/amj.2017.1358

Maynard, M. T., Kennedy, D. M., & Resick, C. J. (2018). Teamwork in extreme environments: Lessons, challenges, and opportunities. *Journal of Organizational Behavior*, 39(6), 695–700. https://doi.org/10.1002/job.2302

McArdle, J. J. (2009). Latent variable modeling of differences and changes with longitudinal data. *Annual Review of Psychology*, 60, 577–605. https://doi.org/10.1146/annurev.psych.60.110707.163612

McDaniel, S. H., & Salas, E. (2018). The science of teamwork: Introduction to the special issue. *American Psychologist*, 73(4), 305–307. https://doi.org/10.1037/amp0000337

McLarnon, M. J. W., & Rothstein, M. G. (2013). Development and initial validation of the workplace resilience inventory. *Journal of Personnel Psychology*, 12(2), 63–73. https://doi.org/10.1027/1866-5888/a000084

Meneghel, I., Martínez, I. M., & Salanova, M. (2016). Job-related antecedents of team resilience and improved team performance. *Personnel Review*, 45(3), 505–522. https://doi.org/10.1108/PR-04-2014-0094

Meneghel, I., Salanova, M., & Martínez, I. M. (2016). Feeling good makes us stronger: How team resilience mediates the effect of positive emotions on team performance. *Journal of Happiness Studies*, 17(1), 239–255. https://doi.org/10.1007/s10902-014-9592-6

Menges, J. I., & Kilduff, M. (2015). Group emotions: Cutting the Gordian knots concerning terms, levels of analysis, and processes. *The Academy of Management Annals*, 9(1), 845–928. https://doi.org/10.1080/19416520.2015.1033148

Merkle, E. C., You, D., & Preacher, K. J. (2016). Testing nonnested structural equation models. *Psychological Methods*, 21(2), 151–163. https://doi.org/10.1037/met0000038

Miller, J. B., & Stiver, I. P. (1997). *The healing connection: How women form relationships in therapy and in life*. Boston: Beacon Press.

Muthén, L. K., & Muthén, B. O. (1998–2017). *Mplus user's guide* (Eighth ed.). Los Angeles, CA: Muthén & Muthén.

O'Neill, O. A., & Rothbard, N. P. (2017). Is love all you need? The effects of emotional culture, suppression, and work–family conflict on firefighter risk-taking and health. *Academy of Management Journal*, 60(1), 78–108. https://doi.org/10.5465/amj.2014.0952

Ouweneel, E., Le Blanc, P. M., & Schaufeli, W. B. (2011). Flourishing students: A longitudinal study on positive emotions, personal resource, and study engagements. *The Journal of Positive Psychology*, 6(2), 142–153. https://doi.org/10.1080/17439760.2011.558847

Ouweneel, E., Le Blanc, P. M., & Schaufeli, W. B. (2012). Don't leave your heart at home: Gain cycles of positive emotions, resources, and engagement at work. *Career Development International*, *17*(6–7), 537–556. https://doi.org/10.1108/13620431211280123

Owens, B. P., & Hekman, D. R. (2016). How does leader humility influence team performance? Exploring the mechanisms of contagion and collective promotion focus. *Academy of Management Journal*, *59*(3), 1088–1111. https://doi.org/10.5465/amj.2013.0660

Owler, K., Morrison, R., & Plester, B. (2010). Does fun work? The complexity of promoting fun at work. *Journal of Management & Organization*, *16*(3), 338–352. https://doi.org/10.5172/jmo.16.3.338

Ozcelik, H., & Barsade, S. G. (2018). No employee an island: Workplace loneliness and job performance. *Academy of Management Journal*, *61*(6), 2343–2366. https://doi.org/10.5465/amj.2015.1066

Petrou, P., Demerouti, E., & Schaufeli, W. B. (2018). Crafting the change: The role of employee job crafting behaviors for successful organizational change. *Journal of Management*, *44*(5), 1766–1792. https://doi.org/10.1177/0149206315624961

Pillay, N., Park, G., Kim, Y. K., & Lee, S. (2020). Thanks for your ideas: Gratitude and team creativity. *Organizational Behavior and Human Decision Processes*, *156*, 69–81. https://doi.org/10.1016/j.obhdp.2019.11.005

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, *63*(1), 539–569. https://doi.org/10.1146/annurev-psych-120710-100452

Prinzing, M., Zhou, J., West, T. N., Le Nguyen, K. D., Wells, J. C., & Fredrickson, B. L. (2020). Staying 'in sync' with others during COVID-19: Positivity resonance mediates cross-sectional and longitudinal links between trait resilience and mental health. *PsyArXiv*, Preprint. doi:10.31234/osf.io/z934e

Rhee, S.-Y. (2006). Shared positve emotions and group effectiveness: The role of broadening-and-building interactions. *Academy of Management Proceedings*, *2006*(1), B1–B6. https://doi.org/10.5465/ambpp.2006.22898617

Rhee, S.-Y. (2007). Group emotions and group outcomes: The role of group-member interactions. In E. A. Mannix, M. A. Neale, & C. P. Anderson (Eds.), *Research on managing groups and teams. Vol. 10. Affect in groups* (pp. 65–95). Oxford: Elsevier.

Richardson, G. E. (2002). The metatheory of resilience and resiliency. *Journal of Clinical Psychology*, *58*(3), 307–321. https://doi.org/10.1002/jclp.10020

Rink, F., Kane, A. A., Ellemers, N., & van der Vegt, G. (2013). Team receptivity to newcomers: Five decades of evidence and future research themes. *Academy of Management Annals*, *7*(1), 247–293. https://doi.org/10.5465/19416520.2013.766405

Russell, J. A. (1980). A circumplex model of affect. *Journal of Personality and Social Psychology*, *39*(6), 1161–1178. https://doi.org/10.1037/h0077714

Salanova, M., Bakker, A. B., & Llorens, S. (2006). Flow at work: Evidence for an upward spiral of personal and organizational resources. *Journal of Happiness Studies*, *7*(1), 1–22. https://doi.org/10.1007/s10902-005-8854-8

Salas, E., Reyes, D. L., & McDaniel, S. H. (2018). The science of teamwork: Progress, reflections, and the road ahead. *American Psychologist*, *73*(4), 593–600. https://doi.org/10.1037/amp0000334

Schaller, T. K., Patil, A., & Malhotra, N. K. (2015). Alternative techniques for assessing common method variance: An analysis of the theory of planned behavior research. *Organizational Research Methods*, *18*(2), 177–206. https://doi.org/10.1177/1094428114554398

Schippers, M. C., den Hartog, D., & Koopman, P. (2007). Reflexivity in teams: A measure and correlates. *Applied Psychology: An International Review*, *56*(2), 189–211. https://doi.org/10.1111/j.1464-0597.2006.00250.x

Schippers, M. C., Den Hartog, D. N., Koopman, P. L., & Wienk, J. A. (2003). Diversity and team outcomes: The moderating effects of outcome interdependence and group longevity and the mediating effect of reflexivity. *Journal of Organizational Behavior*, *24*(6), 779–802. https://doi.org/10.1002/job.220

Schippers, M. C., Edmondson, A. C., & West, M. A. (2014). Team reflexivity as an antidote to team information-processing failures. *Small Group Research*, *45*(6), 731–769. https://doi.org/10.1177/1046496414553473

Schippers, M. C., Homan, A. C., & Knippenberg, D. (2013). To reflect or not to reflect: Prior team performance as a boundary condition of the effects of reflexivity on learning and final team performance. *Journal of Organizational Behavior*, *34*(1), 6–23. https://doi.org/10.1002/job.1784

Schippers, M. C., West, M. A., & Dawson, J. F. (2015). Team reflexivity and innovation: The moderating role of team context. *Journal of Management*, *41*(3), 769–788. https://doi.org/10.1177/0149206312441210

Seers, A., Petty, M., & Cashman, J. F. (1995). Team-member exchange under team and traditional management: A naturally occurring quasi-experiment. *Group & Organization Management*, *20*(1), 18–38. https://doi.org/10.1177/1059601195201003

Selig, J. P., & Preacher, K. J. (2009). Mediation models for longitudinal data in developmental research. *Research in Human Development*, *6*(2–3), 144–164. https://doi.org/10.1080/15427600902911247

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *55*(1), 5–14. https://doi.org/10.1177/0022167801411002

Shaver, P., Schwartz, J., Kirson, D., & O'Connor, C. (1987). Emotion knowledge: Further exploration of a prototype approach. *Journal of Personality and Social Psychology*, *52*(6), 1061–1086. https://doi.org/10.1037/0022-3514.52.6.1061

Shin, Y. (2014). Positive group affect and team creativity: Mediation of team reflexivity and promotion focus. *Small Group Research*, *45*(3), 337–364. https://doi.org/10.1177/1046496414533618

Shin, Y., Kim, M., & Lee, S.-H. (2016). Positive group affective tone and team creative performance and change-oriented organizational citizenship behavior: A moderated mediation model. *Journal of Creative Behavior*, *53*(1), 52–68. https://doi.org/10.1002/jocb.166

Siegel, A. W., & Schraagen, J. M. C. (2017). Beyond procedures: Team reflection in a rail control centre to enhance resilience. *Safety Science*, *91*, 181–191. https://doi.org/10.1016/j.ssci.2016.08.013

Smith, L. G., Gillespie, N., Callan, V. J., Fitzsimmons, T. W., & Paulsen, N. (2017). Injunctive and descriptive logics during newcomer socialization: The impact on organizational identification, trustworthiness, and self-efficacy. *Journal of Organizational Behavior*, *38*(4), 487–511. https://doi.org/10.1002/job.2131

Spreitzer, G., Sutcliffe, K. M., Dutton, J. E., Sonenshein, S., & Grant, A. M. (2005). A socially embedded model of thriving at work. *Organization Science*, *16*(5), 537–549. https://doi.org/10.1287/orsc.1050.0153

Stephens, J. P., Heaphy, E. D., Carmeli, A., Spreitzer, G. M., & Dutton, J. E. (2013). Relationship quality and virtuousness: Emotional carrying capacity as a source of individual and team resilience. *Journal of Applied Behavioral Science*, *49*(1), 13–41. https://doi.org/10.1177/0021886312471193

Stephens, J. P., Heaphy, E. D., & Dutton, J. E. (2011). High quality connections. In K. S. Cameron, & G. Spreitzer (Eds.), *Oxford handbook of positive organizational scholarship* (pp. 385–399). New York, NY: Oxford University Press.

Stoverink, A. C., Kirkman, B. L., Mistry, S., & Rosen, B. (2020). Bouncing back together: Toward a theoretical model of work team resilience. *Academy of Management Review*, *45*(2), 395–422. https://doi.org/10.5465/amr.2017.0005

Sung, W., Woehler, M. L., Fagan, J. M., Grosser, T. J., Floyd, T. M., & Labianca, G. J. (2017). Employees' responses to an organizational merger: Intraindividual change in organizational identification, attachment, and turnover. *Journal of Applied Psychology*, *102*(6), 910–934. https://doi.org/10.1037/apl0000197

Sutcliffe, K. M., & Vogus, T. (2003). Organizing for resilience. In K. S. Cameron, K. J. E. Dutton, & R. Quinn (Eds.), *Positive organizational scholarship* (pp. 94–121). San Francisco, CA: Berrett-Koehler.

The New York Times. (2015). German child care workers' strike brings debate on priorities. Retrieved online January 09th, 2019, from https://www.nytimes.com/2015/06/06/world/europe/german-child-care-workers-strike-brings-debate-on-priorities.html

Tse, H. H. M., & Dasborough, M. T. (2008). A study of exchange and emotions in team member relationships. *Group & Organization Management*, 33(2), 194–215. https://doi.org/10.1177/1059601106293779

Tse, H. H. M., Dasborough, M. T., & Ashkanasy, N. M. (2008). A multi-level analysis of team climate and interpersonal exchange relationships at work. *The Leadership Quarterly*, 19(2), 195–211. https://doi.org/10.1016/j.leaqua.2008.01.005

Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology*, 86(2), 320–333. https://doi.org/10.1037/0022-3514.86.2.320

Tugade, M. M., & Fredrickson, B. L. (2007). Regulation of positive emotions: Emotion regulation strategies that promote resilience. *Journal of Happiness Studies*, 8(3), 311–333. https://doi.org/10.1007/s10902-006-9015-4

Usami, S., Hayes, T., & McArdle, J. J. (2016). Inferring longitudinal relationships between variables: Model selection between the latent change score and autoregressive cross-lagged factor models. *Structural Equation Modeling: A Multidisciplinary Journal*, 23(3), 331–342. https://doi.org/10.1080/10705511.2015.1066680

van de Brake, H. J., Walter, F., Rink, F. A., Essens, P. J., & van der Vegt, G. S. (2018). The dynamic relationship between multiple team membership and individual job performance in knowledge-intensive work. *Journal of Organizational Behavior*, 39(9), 1219–1231. https://doi.org/10.1002/job.2260

Vantilborgh, T., Hofmans, J., & Judge, T. A. (2018). The time has come to study dynamics at work. *Journal of Organizational Behavior*, 39(9), 1045–1049. https://doi.org/10.1002/job.2327

Vijayalakshmi, V., & Bhattacharyya, S. (2012). Emotional contagion and its relevance to individual behavior and organizational processes: A position paper. *Journal of Business and Psychology*, 27(3), 363–374. https://doi.org/10.1007/s10869-011-9243-4

Walter, F., & Bruch, H. (2008). The positive group affect spiral: A dynamic model of the emergence of positive affective similarity in work groups. *Journal of Organizational Behavior*, 29(2), 239–261. https://doi.org/10.1002/job.505

Wang, M., Beal, D. J., Chan, D., Newman, D. A., Vancouver, J. B., & Vandenberg, R. J. (2017). Longitudinal research: A panel discussion on conceptual issues, research design, and statistical techniques. *Work, Aging and Retirement*, 3(1), 1–24. https://doi.org/10.1093/workar/waw033

Warren, M. T., & Warren, M. A. (2019). Measuring high-quality work relationships. *Journal of Personnel Psychology*, 18(1), 46–52. https://doi.org/10.1027/1866-5888/a000217

Waugh, C. E., & Fredrickson, B. L. (2006). Nice to know you: Positive emotions, self–other overlap, and complex understanding in the formation of a new relationship. *Journal of Positive Psychology*, 1(2), 93–106. https://doi.org/10.1080/17439760500510569

Weick, K. E. (1993). The collapse of sensemaking in organizations: The Mann Gulch disaster. *Administrative Science Quarterly*, 38(4), 628–652. https://doi.org/10.2307/2393339

Weick, K. E., & Sutcliffe, K. A. (2006). Mindfulness and the quality of organizational attention. *Organization Science*, 17(4), 514–524. https://doi.org/10.1287/orsc.1060.0196

West, T. N., Le Nguyen, K. D., Zhou, J., Prinzing, M., Wells, J., & Fredrickson, B. L. (2020). How the affective quality of day-to-day social connections may contribute to public health: Prosocial tendencies account for the links between positivity resonance and behaviors that reduce the spread of COVID-19. *PsyArXiv*, Preprint. https://doi.org/10.31234/osf.io/x5rfz

Williams, T., Gruber, D., Sutcliffe, K. M., Shepherd, D., & Zhao, E. Y. (2017). Organizational response to adversity: Fusing crisis management and resilience research streams. *Academy of Management Annals*, 11(2), 733–769. https://doi.org/10.5465/annals.2015.0134

Wright, T. A. (2003). Positive organizational behavior: An idea whose time has truly come. *Journal of Organizational Behavior*, 24(4), 437–442. https://doi.org/10.1002/job.197

Wright, T. A., & Quick, J. C. (2009). The emerging positive agenda in organizations: Greater than a trickle, but not yet a deluge. *Journal of Organizational Behavior*, 30(2), 147–159. https://doi.org/10.1002/job.582

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