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Motivated to be socially mindful: Explaining age differences in the effect of employees' contact quality with coworkers on their coworker support

Ulrike Fasbender[1] | Anne Burmeister[2] | Mo Wang[3]

[1]Work and Organizational Psychology, Justus-Liebig-University Giessen, Giessen, Germany

[2]Rotterdam School of Management, Erasmus University Rotterdam, Rotterdam, The Netherlands

[3]Department of Management, Warrington College of Business, University of Florida, Gainesville, Florida

Correspondence
Ulrike Fasbender, Work and Organizational Psychology, Justus-Liebig-University Giessen, Otto-Behaghel- Straße 10F, 35394 Giessen, Germany.
Email: Ulrike.Fasbender@psychol.uni-giessen.de

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Abstract

In this research, we examine how high-quality contact can facilitate employees' coworker support and explain why the benefits of high-quality contact are contingent upon age. First, we employ a social mindfulness lens to decipher the motivational mechanisms of high-quality contact with coworkers on providing coworker support via coworker-oriented perspective taking and empathic concern. Second, we utilize socioemotional selectivity theory to overcome the current age-blind view on workplace interactions and examine the indirect moderating effect of age via future time perspective on the link between contact quality, social mindfulness, and coworker support. We tested our hypotheses based on data from a sample of 575 employees collected in three waves. Results showed that both coworker-oriented perspective taking and empathic concern mediated the positive effects of contact quality on coworker support. The effect of contact quality on coworker-oriented empathic concern was stronger for older employees with a more constrained future time perspective as compared to younger employees with a more extensive future time perspective. Overall, we extend research on aging, workplace interactions, and support behavior by linking the literature on these topics using a social mindfulness lens and by adding employee age and age-related mechanisms as important boundary conditions that qualify the outcomes of positive workplace contact.

KEYWORDS

contact quality, coworker support, future time perspective, social interactions at work, social mindfulness, socio-emotional selectivity theory, workforce aging

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Contact at work shapes organizational life and greatly impacts employees' work attitudes and behavior. Employees who experience positive social interactions at work, in particular with their coworkers, benefit in several important ways. High-quality contact with coworkers—which we define as positive, natural, and cooperative interactions among peers of similar status—can reduce stress, facilitate the experience of positive psychological states at work, and increase job satisfaction (Ehrhardt & Ragins, 2019; Sias, 2005; Tran, Nguyen, Dang, & Ton, 2018). Thus, high-quality contact is of great importance for individual functioning at work. However, in addition to the benefits for the focal individuals involved, high-quality contact with coworkers might also trigger employees' social motivation to be mindful of others. From this currently overlooked perspective, high-quality contact can be the driver of coworker support and thereby contribute to and shape the motivational and social context in which work is carried out (Parker & Axtell, 2001). In this study, we recognize the importance of this other-oriented perspective and utilize a social mindfulness lens (Van Doesum, Van Lange, & Van Lange, 2013) to decipher the motivational mechanism through which high-quality contact facilitates coworker support.

High-quality contact with coworkers gains further relevance against the backdrop of the increasing number of older employees in today's workforces, who tend to prioritize pleasant socioemotional experiences (Carstensen, 1991, 1992, 2006; Kanfer & Ackerman, 2004; Kooij, De Lange, Jansen, Kanfer, & Dikkers, 2011). Workforces in industrialized economies are aging due to consistently low birth rates and increasing longevity (Boehm, Kunze, & Bruch, 2014; Truxillo, Finkelstein, Pytlovany, & Jenkins, 2015; Wöhrmann, Fasbender, & Deller, 2017). To realize the potential of aging workforces, organizations need to create facilitating conditions that motivate older employees to support their coworkers by drawing on their valuable experiences (Burmeister, van der Heijden, Yang, & Deller, 2018). For example, older employees can provide instrumental support—defined as helping coworkers to solve task-focused issues (Tews, Michel, & Ellingson, 2013) by assisting coworkers to understand company-specific work routines. They can also provide emotional support—defined as helping coworkers to solve person-focused issues (Tews et al., 2013) by sharing their accumulated experiences in managing own emotions and social relationships at work (Doerwald, Scheibe, Zacher, & van Yperen, 2016; Gerpott, Lehmann-Willenbrock, & Voelpel, 2017). To motivate older workers to support their coworkers, high-quality contact is very relevant because changing goal priorities across the life span means that older workers can be particularly responsive to pleasant socioemotional experiences. More specifically, socioemotional selectivity theory (SST; Carstensen, 1991, 1992, 2006; Carstensen, Isaacowitz, & Charles, 1999) postulates that with increasing age, individuals tend to put greater emphasis on socioemotional goals (e.g., meaningful and pleasant social interactions) rather than growth-oriented goals (e.g., knowledge acquisition). This shift in motivational orientation is due to their changing future time perspective, defined as the extent to which employees perceive their remaining time at work as limited and thus focus on enjoying the present (Zacher & Frese, 2009). As such, the quality of contact may be particularly relevant to how older workers form social motivation toward their coworkers and engage in subsequent coworker support.

In this study, we examine how age and age-related changes in future time perspective shape the effect of experiencing high-quality contact at work on providing coworker support. First, to decipher the motivational mechanisms through which high-quality contact with coworkers facilitates employees' coworker support, we adopt a social mindfulness lens (Gerpott, Fasbender, & Burmeister, 2019; Song et al., 2018; Van Doesum et al., 2013). Social mindfulness describes "a benevolent focus on the needs and interests of others" (Van Doesum et al., 2013, p. 86), and is conceptualized to contain the cognitive component of perspective taking and the emotional component of empathic concern. Perspective taking can be defined as the motivation to understand what others think, whereas empathic concern can be defined as the motivation to understand what others feel (Gerpott et al., 2019). We argue that high-quality contact with coworkers at work can trigger a motivational process via which employees give priority to coworkers' needs and interests by being socially mindful. In turn, being socially mindful helps individuals to identify the instrumental and emotional needs of others (Davis, 1983; Tews et al., 2013) and drives them to suspend their own interests for the sake of others' needs by investing time and effort into supporting their coworkers.

Second, we utilize SST (Carstensen, 1991, 1992, 2006; Carstensen et al., 1999) as the theoretical foundation to understand the moderating effect of employee age on the consequences of high-quality coworker contact. SST

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predicts that with increasing age, people perceive their future time as constrained, which increases their focus on positive socioemotional experiences in the present, such as high-quality contact. Older employees, whose future time perspective is more constrained, put greater emphasis on and are more responsive to the quality of their social interactions compared to younger employees. Accordingly, we expect that the effects of high-quality contact on perspective taking and empathic concern are more pronounced for older compared to younger employees.

With this research, we aim to make three contributions to the literature. First, by adopting a social mindfulness lens (Gerpott et al., 2019; Song et al., 2018; Van Doesum et al., 2013), we extend the literature on reactions to positive workplace interactions by adding a social motivational perspective. Existing research has focused on the benefits that the focal individuals can derive from high-quality contact with coworkers (Ehrhardt & Ragins, 2019; Sias, 2005; Tran et al., 2018). For example, we know that workplace relationship quality has a positive effect on the quality of information that employees receive, which in turn fosters their job satisfaction (Sias, 2005). However, this perspective needlessly limits our understanding of the ways in which high-quality contact triggers employees' social motivation to be mindful of others and thus provide emotional and instrumental support to their coworkers. We thus use a social mindfulness lens to decipher the mechanism through which high-quality contact triggers other-oriented behavior.

Second, we overcome the current age-blind view on employee reactions to high-quality contact, by probing age and its underlying psychological mechanism as moderators of the link between contact quality and social mindfulness. More specifically, we contribute to the aging literature by testing the applicability of predictions made by SST about the impact of age-related changes in future time perspective (e.g., Carstensen, 2006) in the context of workplace interactions and support behavior. In testing future time perspective as the age-related mechanism that explains the moderating effect of employee age, we follow recent recommendations on how to move research on work and aging forward (Bohlmann, Rudolph, & Zacher, 2018). More specifically, rather than using employee age as a proxy for assumed psychological differences between older and younger employees, we conceptualize and directly test the theoretical mechanism that underlies the distal effect of employee age (see Gielnik, Zacher, & Wang, 2018; Wang, Burlacu, Truxillo, James, & Yao, 2015). As a result, we contribute to overcoming the age-blind view in the literature on workplace interactions and offer a more nuanced perspective on the motivating potential of high-quality coworker contact.

Third, we integrate SST (Carstensen, 1991, 1992, 2006; Carstensen et al., 1999) with a social mindfulness perspective (Van Doesum et al., 2013) to understand the age-specific downstream consequences of contact quality for coworker support as an other-oriented employee behavior. By acknowledging that the indirect link between high-quality contact and coworker support via social mindfulness is moderated by employee age via future time perspective, we present an integrated theoretical model that depicts the underlying motivational mechanisms (i.e., social mindfulness, future time perspective) that explain how and through which psychological mechanisms high-quality contact and employee age interact to influence supportive behavior toward coworkers.

1 | THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

Contact with coworkers represents an integral part of people's working lives (McGrath, Cooper-Thomas, Garrosa, Sanz-Vergel, & Cheung, 2017). This contact experience involves at least two coworkers who interact with each other. Due to coworkers' common workspace, contact with coworkers is often reoccurring and can turn into prolonged workplace relationships (Heaphy & Dutton, 2008; Stephens, Heaphy, & Dutton, 2011). In line with the literature on workplace relationships, we define contact quality with coworkers as employees' experience of positive, natural, and cooperative interactions with peers of similar status that help employees to gain socioemotional meaning at work.

In order to develop our conceptual model shown in Figure 1, we first explicate how employees' high-quality contact can lead to coworker support. In particular, we specify that high-quality contact with coworkers can trigger a motivational process during which employees give priority to coworkers' needs and interests by being socially mindful (i.e., perspective taking and empathic concern). In turn, social mindfulness can explain why employees engage in coworker support as a result of high-quality contact with coworkers. Second, we explicate how age through future

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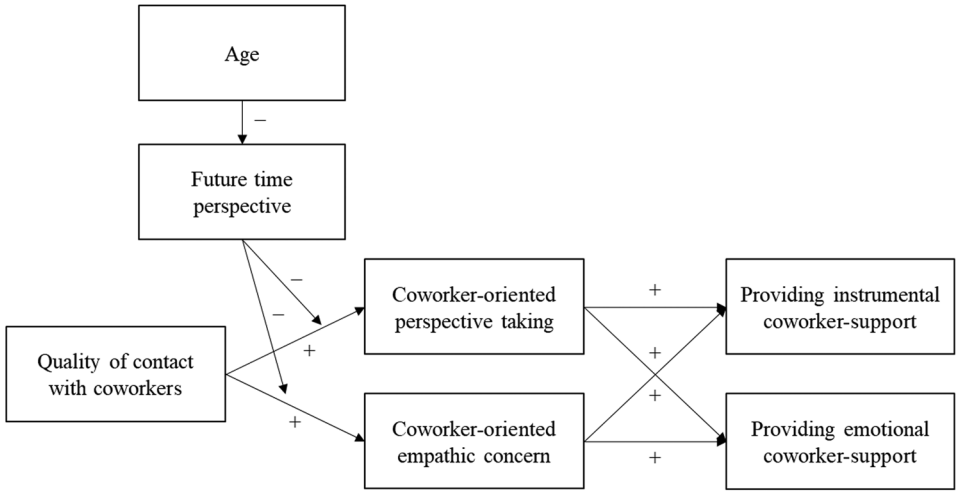

FIGURE 1 Conceptual model of quality of contact with coworkers and their coworker support behavior

time perspective moderates these relationships. We argue that the motivating effects of contact quality on both perspective taking and empathic concern are stronger for older compared to younger employees because of their different future time perspective. Finally, we integrate these arguments and explain that the indirect relationships between contact quality and coworker support are contingent upon age through future time perspective.

1.1 | Contact quality with coworkers and social mindfulness

To begin with, we argue that high-quality contact with coworkers can trigger a motivational process during which employees give priority to coworkers' needs and interests by being socially mindful. This motivational process consists of a cognitive mechanism (perspective taking) and an emotional mechanism (empathic concern; Gerpott et al., 2019; Van Doesum et al., 2013). Perspective taking describes the extent to which individuals are willing to take others' perspectives (i.e., understanding what others think), whereas empathic concern refers to individuals' willingness to experience other-oriented emotions, such as concern and sympathy (i.e., feeling what others feel).

With regard to coworker-oriented perspective taking, we argue that high-quality contact with coworkers can facilitate the motivational orientation to actively invest in understanding others' thinking processes (Ku, Wang, & Galinsky, 2015). In particular, employees who are exposed to pleasant social interactions with their coworkers have the opportunity to feel closer to their coworkers by experiencing similarities in attitudes, beliefs, and thoughts. For example, by sharing positive stories and reactions to workplace events, employees may feel more similar to their coworkers, and are thus more likely to take their perspective (Williams, Parker, & Turner, 2007). Furthermore, high-quality contact frees up cognitive capacity to engage in perspective taking because pleasant social interactions limit the potential for negative feelings to tax one's cognitive resources. Research has shown that negative feelings, such as anxiety and anger, lead people to become more self-focused and preoccupied with their own perspective and therewith, less willing to take others' perspective (Todd, Forstmann, Burgmer, Brooks, & Galinsky, 2015; Yip & Schweitzer, 2019). In contrast, high-quality contact is a pleasant experience that motivates employees to take their coworkers' perspectives because acknowledging others becomes easier when being in a positive state of mind.

With regard to coworker-oriented empathic concern, we expect that the exposure to coworkers can facilitate employees' willingness to empathize with coworkers' concerns. In particular, high-quality contact leads to likeability that can trigger interpersonal sensitivity because employees are more likely to care about those they like (i.e., had high-quality contact with). Interpersonal sensitivity means that employees care about how coworkers experience the world and therewith gain knowledge about their emotions, moods, and vulnerabilities as human beings (Decety &

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Batson, 2007). Thus, through high-quality exposure, employees can become more sensitive toward their coworkers, which is likely to increase their willingness to understand and care about coworkers' feelings at work. Supporting this argument, Parker and Axtell (2001) found that a higher frequency of social interactions between frontline employees and their internal suppliers increased frontline employees' empathy toward their suppliers. Taken together, we hypothesize:

Hypothesis 1: Employees' quality of contact with coworkers is positively associated with their coworker-oriented (a) perspective taking and (b) empathic concern.

1.2 | Social mindfulness and coworker support

Social mindfulness theory posits that perspective taking and empathic concern are highly relevant for other-oriented and socially mindful actions of individuals (Van Doesum et al., 2013), suggesting that social mindfulness is positively related to providing coworker support. Coworker support implies that employees do not invest their limited resources in terms of time and effort in their own advancement, but that they help to advance others (Bolino, Klotz, Turnley, & Harvey, 2013), including supporting coworkers to solve task-focused issues (i.e., instrumental support) and person-focused issues (i.e., emotional coworker support; Tews et al., 2013). Although this behavior is typically highly beneficial for the support target and the organization as a whole, it can have detrimental effects on the energy, effectiveness, and performance of individuals who provide coworker support (Bolino & Grant, 2016; Bolino, Hsiung, Harvey, & LePine, 2015). Increased social mindfulness might facilitate coworker support because it can motivate individuals to reevaluate the potential costs associated with providing coworker support, based on increased other-orientedness and reduced focus on the self. Furthermore, perspective taking and empathic concern can help individuals to anticipate the reactions of others, which can facilitate more rewarding and smoother interpersonal interactions (Davis, 1983). In turn, individuals might be more likely to support others when they expect their interactions to be positive. In support of our argument, research with university students has indicated that both perspective taking and empathic concern facilitate general supportive behavior toward peers as an act of caring for the other (Trobst, Collins, & Embree, 1994).

1.2.1 | Perspective taking and coworker support

Coworker-oriented perspective taking should have a positive influence on providing instrumental and emotional support to coworkers because perspective taking allows employees to think from others' point of view, learn about their needs, and therewith provide the kinds of support that their coworkers need. Specifically, taking coworkers' perspectives can increase employees' understanding of the task-focused and person-focused issues that their coworkers face at work (Kamdar, McAllister, & Turban, 2006). Better understanding of those issues may motivate employees to provide support to their coworkers because (a) the expected value of the support is better understood, and (b) it is easier for them to provide support that is effective.

With regard to instrumental support, coworker-oriented perspective taking can help employees to learn about the task-related problems that their coworkers face. The improved understanding of their coworkers' task-related issues can then lead employees to provide more instrumental support to help resolve those issues. For example, employees who have a deeper understanding of coworkers' task-related issues can help their coworkers to employ a better strategy to accomplish their job tasks, assist coworkers with heavy workloads, or reach out to useful job contacts to leverage external resources. Previous research in a different context supports these theoretical considerations. Specifically, Axtell, Parker, Holman, and Totterdell (2007) examined ways to enhance customer service in call centers, and found that employees' customer-oriented perspective taking had a positive effect on their helping behavior toward customers.

With regard to emotional support, coworker-oriented perspective taking may also be beneficial because it can help employees to learn about the person-focused issues that their coworkers face at work. Specifically, coworker-oriented perspective taking can motivate employees to gauge the kind of emotional support that could be useful for their

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coworkers in order to cope with difficult situations. For example, employees may listen to their coworkers' concerns at work, allow them to show genuine emotions, or help them to regulate their emotions (see reviews on emotional competencies; Doerwald et al., 2016; Scheibe, 2019). In support of these theoretical considerations, an initial study found that computer-induced perspective taking can guide people to feel alike others and build positive relationships with them because they experientially learned about others' feelings (Gehlbach et al., 2015). Taking our theoretical considerations and the empirical findings into account, we argue that coworker-oriented perspective taking facilitates employees' provision of instrumental and emotional coworker support.

Hypothesis 2: Employees' coworker-oriented perspective taking is positively associated with providing (a) instrumental and (b) emotional support to their coworkers.

1.2.2 | Empathic concern and coworker support

Coworker-oriented empathic concern should have a positive influence on providing instrumental and emotional coworker support because of the arising feelings of oneness with coworkers. Employees' willingness to experience others' emotions can lead to feelings of oneness with others, the development of a merged identity, and a reduced focus on the self (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997). Based on this experienced oneness, supporting others is no longer perceived as a costly investment of resources that renders one's own goal attainment more difficult because the interests of self and others become integrated and interchangeable (Cialdini et al., 1997). In turn, employees should be more likely to provide coworker support.

Regarding instrumental support, we expect that employees' empathic concern can affect help provided to coworkers, as "an emotional signal of oneness" (Cialdini et al., 1997, p. 481). More specifically, because caring for coworkers' emotional processes can lead employees to form a merged identity between them and their coworkers with a reduced focus on the self, the coworkers' task-related problems may feel more like the employees' own problems. This may lead employees to get involved and help their coworkers when things get demanding (i.e., providing instrumental support), because their joint efforts will have better chances of accomplishing work goals and resolving task-related problems. Previous research has supported this argument by demonstrating that empathic concern toward customers was positively associated with the provision of customer support (Axtell et al., 2007; Bettencourt, Gwinner, & Meuter, 2001; DeCelles, DeVoe, Rafaeli, & Agasi, 2019).

With regard to providing emotional coworker support, employees' empathic concern should also have a positive effect. Coworker-oriented empathic concern leads employees to experience the emotional strain faced by coworkers. For employees, the time and effort invested in supporting their coworkers are now reevaluated in line with their perceived oneness. Specifically, employees who are willing to experience their coworkers' emotions are more likely to provide emotional support to them (e.g., take a personal interest in their coworkers' concern) because this does not only help the coworkers to regulate their emotions but also releases employees' coexperienced emotional strain arising from feelings of oneness (Maner et al., 2002). In support of our theoretical considerations, a study on customer interactions showed that empathic concern and socioemotional support were positively associated (Rosenbaum & Massiah, 2007). Moreover, research has demonstrated positive links between employees' empathic concern and their person-focused citizenship behavior (McNeely & Meglino, 1994; Settoon & Mossholder, 2002), as well as altruism and courtesy at work (Joireman, Kamdar, Daniels, & Duell, 2006). We thus hypothesize:

Hypothesis 3: Employees' coworker-oriented empathic concern is positively associated with providing (a) instrumental and (b) emotional support to their coworkers.

1.3 | The mediating effect of social mindfulness

By integrating our arguments, we predict that both coworker-oriented perspective taking and empathic concern mediate the positive relationship between employees' quality of contact with coworkers and the provision of instrumental

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and emotional coworker support. First, high-quality contact creates the grounds for the cognitive capacity and interpersonal sensitivity that are needed to develop the social motivation to engage in both coworker-oriented perspective taking and empathic concern. Second, coworker-oriented perspective taking and empathic concern can facilitate the provision of instrumental and emotional support toward coworkers, because socially mindful employees are more likely to give priority to others' interests. In general support of the proposed mediating mechanisms, research has shown that interactions with suppliers can facilitate cooperative behavior toward suppliers via employees' supplier-oriented perspective taking and empathy (Parker & Axtell, 2001). In sum, we hypothesize:

Hypothesis 4: Employees' quality of contact with coworkers is positively and indirectly related to providing instrumental coworker support through coworker-oriented (a) perspective taking and (b) empathic concern.

Hypothesis 5: Employees' quality of contact with coworkers is positively and indirectly related to providing emotional coworker support through coworker-oriented (a) perspective taking and (b) empathic concern.

1.4 | The moderating role of age via future time perspective

Furthermore, we investigate and explain age differences in the relationship between contact quality and coworker support based on SST (Carstensen, 1991, 1992, 2006; Carstensen et al., 1999), a motivational theory of lifespan development. In its core, SST postulates that goals are contextualized in changing time horizons. As individuals pass through different life stages, they start to view "time" as *time left in life* rather than *time since birth* (Carstensen, 2006). Accordingly, younger individuals who perceive their remaining time and opportunities as expansive tend to focus on growth-oriented goals whose benefits can be realized in the future, whereas older individuals who perceive their remaining time and opportunities as constrained tend to prioritize socioemotional goals from which they gain meaningful experiences in the here and now (Carstensen et al., 1999). Specifically, we focus on *occupational* future time perspective, which describes employees' perception of how much time and opportunities they have left until they retire from work (Fasbender, Wöhrmann, Wang, & Klehe, 2019; Rudolph, Kooij, Rauvola, & Zacher, 2018; Zacher & Frese, 2009). We argue that the motivating effects of contact quality on both perspective taking and empathic concern are stronger for older compared to younger employees because of their different future time perspective.

First, we expect a negative relationship between age and future time perspective. With increasing age, employees' future time perspective likely shrinks, as they move closer to traditional retirement age (Fasbender et al., 2019). In some countries, however, mandatory retirement no longer exists. In the United Kingdom, for example, mandatory retirement age was abolished in 2011. As a result, there are differences in expected retirement ages, because employees of the same age may vary in their perception of how much time and opportunities are left in their occupational future. Meta-analytical findings showed a sizable negative relationship between age and occupational future time perspective ($\rho = -.55$; Rudolph et al., 2018).

Second, we theorize that future time perspective is the underlying mechanism that explains why age moderates the relationships between contact quality and the motivation to be socially mindful, characterized by perspective taking and empathic concern. We expect that the relationships are stronger for older employees, whose future time perspective is more constrained, as compared to younger employees, whose future time perspective is more expansive. In particular, with diminishing levels of perceived time and opportunities in their occupational future, employees are more likely motivated by socioemotional goals to create pleasant and meaningful social experiences in the present (Henry, Zacher, & Desmette, 2015; Zhan, Wang, & Shi, 2015). Being exposed to high-quality contact with coworkers represents a rewarding social experience that is aligned with socioemotional goals of older employees, who typically have a more constrained time perspective. This match between type of social interaction and differential employee goals and needs has been shown to lead to positive outcomes, such as increased well-being, thriving, and interpersonal citizenship behaviors (Ehrhardt & Ragins, 2019; Ryan & La Guardia, 2000). As a result, older employees,

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whose occupational future time perspective is more constrained, are more likely to be sensitive to the high-quality contact with their coworkers and should therefore be more motivated to invest effort into both perspective taking and empathic concern. In contrast, younger employees, whose occupational future time perspective is more expansive, may focus on more instrumental social interactions, such as networking and knowledge exchange, to act upon their growth- and knowledge-oriented goals (Kooij & Van De Voorde, 2011; Kooij et al., 2011; Zacher & Griffin, 2015). For them, pleasant socioemotional experiences are not their primary concern, such that the match of high-quality contact with their life span-related goal orientations is less pronounced compared to older workers with more constrained time perspectives. Taken together we expect the relationships between contact quality and coworker-oriented perspective taking and empathic concern to be stronger for older employees, whose future time perspective is more constrained, as compared to younger employees, whose future time perspective is more expansive.

Hypothesis 6: Age, through future time perspective, has an indirect moderation effect on the relationships between contact quality and coworker-oriented (a) perspective taking and (b) empathic concern, such that the positive relationships will be stronger for (older) employees with a more constrained future time perspective than (younger) employees with a more expansive future time perspective.

Integrating our arguments derived from SST (Carstensen, 1991, 1992, 2006; Carstensen et al., 1999) with a social mindfulness lens (Gerpott et al., 2019; Song et al., 2018; Van Doesum et al., 2013), we predict that the indirect relationships between contact quality and coworker support are contingent upon age via future time perspective. More specifically, we expect that the positive indirect effects of high-quality contact on providing instrumental and emotional coworker support are stronger for older employees, whose future time perspective is more constrained, than for younger employees, whose future time perspective is more expansive.

Hypothesis 7: Age, through future time perspective, moderates the indirect relationships between employees' quality of contact with coworkers and providing instrumental coworker support via coworker-oriented (a) perspective taking and (b) empathic concern, such that the positive indirect relationships will be stronger for (older) employees with a more constrained future time perspective than for (younger) employees with a more expansive future time perspective.

Hypothesis 8: Age, through future time perspective, moderates the indirect relationships between employees' quality of contact with coworkers and providing emotional coworker support via coworker-oriented (a) perspective taking and (b) empathic concern, such that the positive indirect relationships will be stronger for (older) employees with a more constrained future time perspective than for (younger) employees with a more expansive future time perspective.

2 | METHOD

2.1 | Sample and procedure

In 2019, we collected data from a sample of employees living and working across the United Kingdom (including England, Northern Ireland, Scotland, and Wales). We collected the data together with an established data collection institute (i.e., Respondi). We used online questionnaires at three time points, which were each 2 weeks apart. We chose 2 weeks as the optimal time lag because scholars have recently recommended the use of "shortitudinal" designs (Dormann & Griffin, 2015), in particular when considering the potentially limited duration of social mindfulness (Gerpott et al., 2019; Song et al., 2018). About 5,000 people from the data collection company's survey panel were invited via e-mail to take part in the study. This study was carried out in accordance with the ethical guidelines of the Justus-Liebig-University, Giessen with an informed consent from all study participants. Participants received a small incentive

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for their participation (£ 2.00). Participants were invited if they were 18 years or older,[1] currently employed for at least 20 hr per week, and had the opportunity to interact with and support their coworkers.

Overall, 661 people participated at Time 1 (i.e., response rate of 13.2%). To ensure that participants paid attention to the content of the questions, we implemented quality-check questions (e.g., "Please select 'strongly disagree' here if you pay attention."). Of the participants, 83 were removed because they did not respond correctly to the quality-check questions, resulting in a sample size of 578 participants. Furthermore, we included only those participants who reported that they were in contact with their coworkers because the quality of contact with coworkers was the central predictor variable in this study. Of the 578 participants, three participants were excluded because they indicated that they had no contact at all with their coworkers in the last 2 weeks. Of the resulting 575 participants, 432 participants took part at Time 2 (dropout rate = 24.9%), and 377 participants took also part at Time 3 (dropout rate = 12.7%). To reduce bias and maintain statistical power, we followed recommendations on dealing with missing data in longitudinal studies (Graham, 2009; Wang et al., 2017) and modeled missing values with full information maximum likelihood estimation (implemented with robust standard errors, that is, MLR estimator; Newman, 2014) of participants who did not take part at Time 2 and Time 3.[2] Therefore, the final sample consisted of 575 participants.

Participants worked on average 38.38 hr per week ($SD = 6.34$) in a broad array of industries (i.e., 2.3% automotive, 7.5% consumer goods, 8.0% education and research, 6.1% energy and infrastructure, 5.7% finance and insurance, 9.0% health care, 6.4% industrial goods, 4.7% nonprofit sector, 2.6% retail, 7.5% technology, media and telecommunications, 3.3% tourism and hospitality, 4.0% transport and logistics, 10.4% professional services, 12.3% public sector, and 10.1% other). Of the participants, 44.2% were female and 43.8% had leadership responsibility. Participants' age ranged from 20 to 69 years ($M = 48.66$, $SD = 11.39$).

2.2 | Measures

All study variables (apart from employees' age) were assessed with scales consisting of multiple items. Participants responded on a five-point scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). We temporally separated the measurement of predictor (quality of contact with coworkers, age, and future time perspective), mediators (coworker-oriented perspective taking and empathic concern), and outcomes (providing instrumental and emotional coworker support) variables to alleviate concerns about common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) and to allow for stronger causal inference (Wang et al., 2017).

2.2.1 | Contact quality with coworkers

We assessed the quality of contact with coworkers with the three items from Fasbender and Wang (2017) that capture a pleasant social experience when interacting with coworkers. Respondents indicated the degree to which their contact with coworkers was "positive," "natural," and "cooperative" in the last 2 weeks (Cronbach's $\alpha = .79$).

2.2.2 | Age

Participants provided their chronological age in years. We rescaled the age variable by a factor of 10 to yield greater precision of estimates and facilitate the interpretation of the unstandardized coefficient for age in comparison with the other unstandardized coefficients in our statistical analyses (Gielnik et al., 2018).

2.2.3 | Future time perspective

We assessed future time perspective with the six-item scale developed by Zacher and Frese (2009). An example item was "My occupational future seems infinite to me." (Cronbach's $\alpha = .92$).

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2.2.4 | Coworker-oriented perspective taking

Coworker-oriented perspective taking was measured with four items derived from Axtell et al. (2007). Axtell and colleagues adapted these items for a specific situation and target (i.e., customers) from more general and dispositional measures of perspective taking (e.g., Davis, 1983). We modified the scale by changing the word "customer" to "coworker" in each item. In addition, we instructed participants to "think about the interactions with your coworkers in the last 2 weeks." An example item was: "I imagined how things looked from a coworker's perspective." (Cronbach's $\alpha = .96$).

2.2.5 | Coworker-oriented empathic concern

Coworker-oriented empathic concern was measured with three items derived from Parker and Axtell (2001), also used in Axtell et al. (2007). We modified the scale by changing the word "supplier" to "coworker" in each item and instructed participants to "think about the interactions with your coworkers in the last 2 weeks." An example item was: "I understood when coworkers got frustrated." (Cronbach's $\alpha = .86$).

2.2.6 | Providing instrumental coworker support

Providing instrumental coworker support was measured with six items derived from Tews et al. (2013). Participants indicated the extent to which they helped their coworkers with work tasks. The items were introduced with "In the last 2 weeks…"; an example item was: "I went out of my way to help colleagues with work-related problems." (Cronbach's $\alpha = .92$).

2.2.7 | Providing emotional coworker support

Providing emotional coworker support was measured with eight items derived from Tews et al. (2013). Participants indicated the extent to which they showed concern and courtesy toward their coworkers. The items were introduced with "In the last 2 weeks…"; an example item was: "I took time to listen to my colleagues' concerns." (Cronbach's $\alpha = .92$).

2.2.8 | Control variables

We controlled for contact frequency as in face-to-face, telephone, video call, and e-mail contact with coworkers in the last 2 weeks (i.e., ranging from 1 = *Very rarely* to 5 = *Very often*) to exclude the possibility that the effects are driven by frequency rather than quality of contact with coworkers (Fasbender & Wang, 2017; Parker & Axtell, 2001). Participants' gender (i.e., binary coded with 0 = *Female* and 1 = *Male*) was included as a control variable in the analyses to exclude the possibility that the investigated relationships are due to gender differences rather than due to the quality of contact with coworkers, in particular, because women tend to score higher on scales measuring empathy (Davis, 1983). We also included leadership responsibility (i.e., binary coded with 0 = *No leadership responsibility* and 1 = *Leadership responsibility*) as a control variable because meta-analytical results highlighted differential effects of perspective taking and empathic concern contingent upon employee status (Longmire & Harrison, 2018). Accordingly, employees with lower status (i.e., no leadership responsibility) are less likely to translate perspective taking and empathic concern into support behavior because they expect higher status individuals to act, who seemingly have greater control over the situation than themselves. Furthermore, we included company size (i.e., ranging from 1 = *Micro [<10 employees]* to 4 = *Large [≥250 employees]*) as it might affect the degree to which someone offers or needs support and how likely it is that quality contact can, or does, exist. Moreover, we controlled for competitive work environment (i.e., five items from Fletcher & Nusbaum, 2010), as competition among coworkers may undermine providing support to coworkers as potential competitors in the company (Swab & Johnson, 2019). Cronbach's alpha for competitive work environment was .80. Finally, we also controlled for perceived dissimilarity in terms of outlook, perspective, and values between employees and their coworkers with a one-item measure from Turban and Jones (1988), because previous research has shown that perceived dissimilarity can weaken perspective taking among employees (Williams et al., 2007).

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2.3 | Analytic strategy

To begin with, we conducted a series of confirmatory factor analyses (CFA) to support the measurement structure of the six core measures used in this study. We then used structural equation modeling (SEM) to investigate the hypothesized relationships using Mplus Version 8.3 (Muthén & Muthén, 2019). We regressed control variables (i.e., contact frequency, gender, leadership responsibility, company size, competitive work environment, and perceived dissimilarity) on both the mediators (i.e., coworker-oriented perspective taking and empathic concern) and outcome variables (i.e., providing instrumental and emotional coworker support).[3] To gauge the model fit, we applied robust maximum likelihood estimation (MLR) for two reasons; first, to account for deviations from normality and missing values (Yuan, Chan, & Bentler, 2000), and second, to estimate latent interaction effects. It is important to note that regular model fit indices are not available when using MLR as the estimator.

To test the indirect effects of quality of contact with coworkers on providing instrumental and emotional coworker support through coworker-oriented perspective taking and empathic concern (Hypotheses 4 and 5), we controlled for the direct effects of quality of contact with coworkers on providing instrumental and emotional coworker support, as not including direct effects can spuriously inflate indirect effects (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; Preacher & Hayes, 2008). To compute the confidence intervals (CIs) of indirect effects, we used parameter-based bootstrap with the Monte Carlo method in R (Preacher, 2015; Preacher & Selig, 2012; R Core Team, 2017).

To test the mediated moderation effects of age on the relationships between quality of contact with coworkers and coworker-oriented perspective taking and empathic concern through future time perspective (Hypotheses 6a and 6b), we followed the recommendations to estimate indirect moderation effects in terms of a Type II Mediated Moderation (DeMarree, Wheeler, Briñol, & Petty, 2014; Gielnik et al., 2018; Wang et al., 2015). This means that we simultaneously estimated the main effect of age on future time perspective as well as the interaction effect between contact quality with coworkers and future time perspective. Specifically, we included the interaction term between the grand mean-centered scores of future time perspective and contact quality with coworkers using the XWITH command in Mplus 8.3 (Muthén & Muthén, 2019), which we regressed on coworker-oriented perspective taking and empathic concern, while controlling for the main effects of age and future time perspective. We then calculated the mediated moderation effect by multiplying the effect of age on future time perspective with the interaction effect of future time perspective and contact quality on the relationships between contact quality with (a) perspective taking and (b) empathic concern.

Finally, to test the indirect moderation effects of age (via future time perspective) on the indirect links between contact quality and coworker support through perspective taking and empathic concern (Hypotheses 7 and 8), we combined the previous two approaches by testing both indirect effects and the indirect moderation effects simultaneously. Following Edwards and Lambert (2007), we estimated whether the indirect effects were conditional upon the indirect moderation effect of age (via future time perspective) by multiplying the effect of age on future time perspective with the interaction effects of future time perspective on the relationship between contact quality with (a) perspective taking and (b) empathic concern, and with the effects of (a) perspective taking and (b) empathic concern on instrumental coworker support (Hypotheses 7a and 7b) and on emotional coworker support (Hypotheses 8a and 8b).

3 | RESULTS

3.1 | Preliminary analysis

Table 1 presents means, standard deviations, and correlations of the study variables. Table 2 presents the fit indices for the CFA. The intended six-factor structure yielded a good model fit, and was superior to alternative five-, four-, three-, and one-factor models. Hence, the construct validity of the present measures is supported.

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TABLE 1 Means, standard deviations, and correlations of study variables

Variable	*Mean*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
Time 1 variables															
1. Contact frequency	3.62	0.96	-												
2. Gender[a]	0.56	0.50	−.08	-											
3. Leadership responsibility[b]	0.44	0.50	.23**	.14**	-										
4. Company size	3.15	1.03	.15**	−.00	−.21**	-									
5. Competitive work environment	2.38	0.88	.18**	.11**	.14**	.10*	(.80)								
6. Perceived dissimilarity[c]	0.15	0.36	−.03	.05	.00	.03	−.06	-							
7. Age[d]	4.87	1.14	−.15**	.07	.10*	−.03	−.06	−.02	-						
8. Future time perspective	2.88	0.99	.18**	−.03	.11**	−.02	.21**	−.18**	−.54**	(.92)					
9. Quality of contact with coworkers	4.15	0.64	.04	−.10*	.00	−.04	−.14**	−.22**	.08	.13**	(.79)				
Time 2 variables															
10. Coworker-oriented perspective taking	3.85	0.80	.13**	−.10*	.08	.01	.04	−.11*	−.01	.15**	.22**	(.96)			
11. Coworker-oriented empathic concern	3.66	0.88	.19**	−.06	.20**	−.08	.09	−.06	−.08	.22**	.14**	.57**	(.86)		
Time 3 variables															
12. Providing instrumental coworker support	3.58	0.89	.11*	−.04	.19**	.03	.15**	−.05	−.04	.18**	.12*	.37**	.41**	(.92)	
13. Providing emotional coworker support	3.80	0.72	.16**	−.17**	.11*	.00	.06	−.16**	−.05	.21**	.21**	.47**	.66**	.67**	(.92)

Note. $N = 575$ at Time 1, $N = 432$ at Time 2, $N = 377$ at Time 3. Reliabilities (Cronbach's alpha) are shown in parentheses on the diagonal.
[a]Gender coded with 0 = Female and 1 = Male.
[b]Leadership responsibility coded with 0 = No leadership responsibility and 1 = Leadership responsibility.
[c]Perceived similarity coded with 0 = Low and 1 = High.
[d]Age was rescaled by a factor of 10.
$^{*}p < .05$, $^{**}p < .01$.

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TABLE 2 Confirmatory factor analysis fit indices for measurement model

Model	χ^2	*df*	$\Delta\chi^2$ (Δdf)	*p*-value $\Delta\chi^2$ (Δdf)	*CFI*	*TLI*	*RMSEA*	*SRMR*
Six-factor model	598.752	284	-	-	0.961	0.955	0.044	0.045
Five-factor model[a]	1,144.190	289	545.438 (5)	< .001	0.893	0.880	0.072	0.091
Five-factor model[b]	1,257.402	289	658.650 (5)	<.001	0.879	0.864	0.076	0.064
Four-factor model[c]	1,762.728	293	1,163.976 (9)	<.001	0.816	0.796	0.093	0.101
Three-factor model[d]	2,304.466	296	1,705.714 (12)	<.001	0.749	0.724	0.109	0.115
One-factor model	4,126.247	299	3,527.495 (15)	<.001	0.521	0.479	0.149	0.128

Note. $N = 575$. Difference of chi-square values ($\Delta\chi^2$) were estimated to compare to the six-factor model. CFI: Confirmatory Fit Index, TLI: Tucker Lewis Index, RMSEA: Root Mean Square Error of Approximation, SRMR: Standardized Root Mean Square Residual.

[a]Coworker-oriented emphatic concern and perspective taking loading on one factor.

[b]Instrumental and emotional coworker support loading on one factor.

[c]Coworker-oriented emphatic concern and perspective taking loading on one factor, and instrumental and emotional coworker support loading on one factor.

[d]Coworker-oriented emphatic concern and perspective taking loading on one factor, instrumental and emotional coworker support loading on one factor, and contact quality with coworkers and future time perspective loading on one factor.

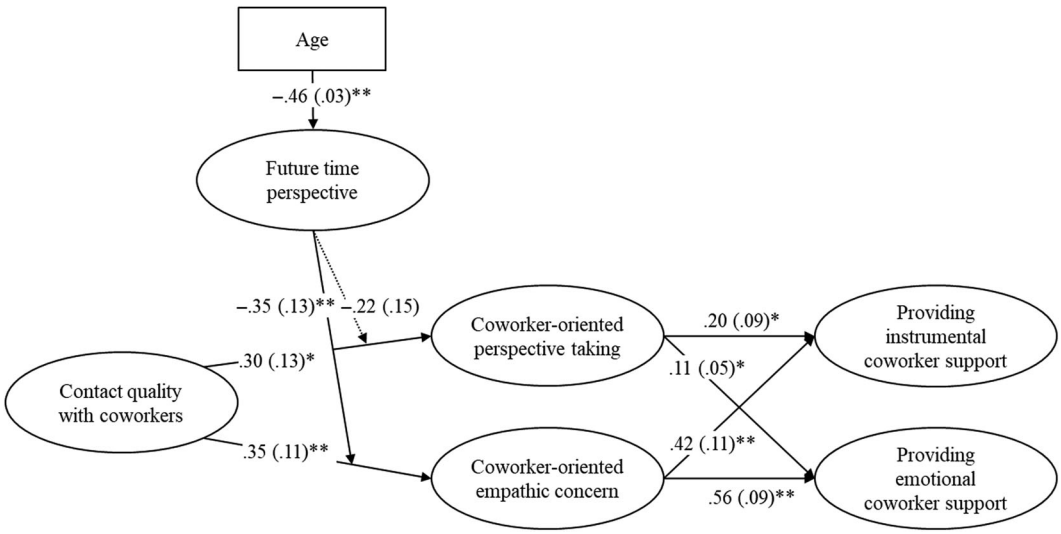

FIGURE 2 Results of structural equation modeling (including control variables, $N = 575$)

Note. Hypothesized relationships are shown with unstandardized coefficients and standard errors in parentheses. For the readability, control variables are not shown in this figure; their effects can be found in Table 3.

* $p < .05$, ** $p < .01$

3.2 | Hypothesis testing

Hypotheses 1 to 3 addressed the relationships between contact quality, coworker-oriented perspective taking and empathic concern, and providing instrumental and emotional coworker support. As can be seen in Figure 2 (and in Table 3), contact quality with coworkers was positively related to coworker-oriented perspective taking ($\gamma = .304$, $SE = .125$, $p = .015$) and empathic concern ($\gamma = .350$, $SE = .108$, $p = .001$), supporting Hypotheses 1a and 1b. Furthermore, we found positive effects of coworker-oriented perspective taking on providing instrumental ($\gamma = .195$, $SE = .088$,

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TABLE 3 Results of structural equation modeling including control variables (direct effects)

	Providing instrumental coworker support		Providing emotional coworker support	
	Coeff (*SE*)	beta	Coeff (*SE*)	beta
Contact frequency	−.032 (.049)	−.033	.022 (.028)	.033
Gender[a]	−.066 (.095)	−.035	−.168 (.054)	−.134**
Leadership responsibility[b]	.246 (.098)	.131*	.070 (.055)	.056
Company size	.043 (.046)	.048	.007 (.027)	.012
Competitive work environment	.106 (.058)	.100	-.003 (.032)	−.004
Perceived dissimilarity[c]	−.007 (.131)	−.003	-.182 (.078)	−.104*
Contact quality with coworkers	.063 (.100)	.036	.020 (.062)	.018
Coworker-oriented perspective taking	.195 (.088)	.179*	.107 (.051)	.147*
Coworker-oriented empathic concern	.423 (.109)	.323**	.556 (.085)	.635**
R^2		.204**		.522**
	Coworker-oriented perspective taking		Coworker-oriented empathic concern	
	Coeff (*SE*)	beta	Coeff (*SE*)	beta
Contact frequency	.108 (.047)	.122*	.074 (.040)	.100
Gender[a]	−.109 (.083)	−.063	−.125 (.070)	−.088
Leadership responsibility[b]	.233 (.088)	.136**	.059 (.077)	.041
Company size	−.044 (.040)	−.053	.005 (.037)	.008
Competitive work environment	.033 (.050)	.034	.015 (.048)	.019
Perceived dissimilarity[c]	.061 (.132)	.025	−.029 (.110)	−.015
Age[d]	.023 (.048)	.031	.053 (.047)	.084
Contact quality with coworkers (A)	.304 (.125)	.190**	.350 (.108)	.263**
Future time perspective (B)	.184 (.086)	.190*	.120 (.077)	.149
Interaction (A x B)	−.216 (.147)	−.120	−.350 (.131)	−.233**
R^2		.133**		.161*
	Future time perspective			
	Coeff (*SE*)	beta		
Age[d]	−.456 (.030)	−.586**		
R^2		.343**		

Note. $N = 575$. Coeff = unstandardized coefficient, *SE* = standard error of unstandardized coefficient, beta = standardized coefficient.

[a]Gender coded with 0 = Female and 1 = Male.

[b]Leadership responsibility coded with 0 = No leadership responsibility and 1 = Leadership responsibility.

[c]Perceived similarity coded with 0 = Low and 1 = High.

[d]Age was rescaled by a factor of 10.

*$p < .05$, **$p < .01$.

$p = .026$) and emotional ($\gamma = .107$, $SE = .051$, $p = .034$) coworker support, supporting Hypotheses 2a and 2b. In addition, we found positive effects of coworker-oriented empathic concern on providing instrumental ($\gamma = .423$, $SE = .109$, $p < .001$) and emotional ($\gamma = .556$, $SE = .085$, $p < .001$) coworker support, in line with Hypotheses 3a and 3b.

Hypotheses 4 and 5 addressed the indirect effects between quality of contact with coworkers and providing instrumental and emotional coworker support through coworker-oriented perspective taking and empathic concern. As can be seen in Table 4, we found indirect effects of quality of contact on providing instrumental coworker support

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TABLE 4 Indirect effects of contact quality on providing instrumental and emotional support via perspective taking and empathic concern

	Providing instrumental coworker support			Providing emotional coworker support		
Quality of contact with coworkers via	Coeff	CI LL	CI UL	Coeff	CI LL	CI UL
Coworker-oriented perspective taking	.059	.001	.148	.033	.0003	.084
Coworker-oriented empathic concern	.148	.050	.269	.195	.075	.327

Note. $N = 575$. Coeff = unstandardized coefficient, CI LL = lower level of bias-corrected 95% confidence interval, CI UL = upper level of 95% of bias-corrected confidence interval.

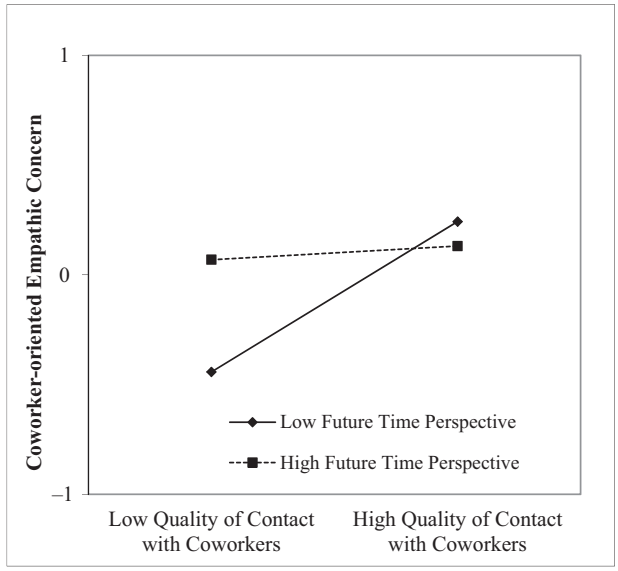

FIGURE 3 Future time perspective moderates the relationship between quality of contact with coworkers and coworker-oriented empathic concern

via perspective taking (*indirect effect* = .059, 95% CI [.001, .148]) and empathic concern (*indirect effect* = .148, 95% CI [.050, .269]), supporting Hypotheses 4a and 4b. Furthermore, we found indirect effects of quality of contact on providing emotional coworker support via coworker-oriented perspective taking (*indirect effect* = .033, 95% CI [.0003, .084]) and empathic concern (*indirect effect* = .195, 95% CI [.075, .327]), supporting Hypotheses 5a and 5b.

Hypotheses 6a and 6b addressed the indirect moderation effects of age on the relationship between quality of contact with coworkers and coworker-oriented perspective taking and empathic concern via future time perspective. We found a negative effect of age on future time perspective ($\gamma = -.456$, $SE = .030$, $p < .001$). Yet, the estimated coefficients showed that future time perspective did not significantly moderate the relationship between quality of contact and coworker-oriented perspective taking ($\gamma = -.216$, $SE = .147$, $p = .140$). In addition, the indirect moderation effect of age on the relationship between quality of contact and coworker-oriented perspective taking via future time perspective was not significant (*compound effect* = .098, 95% CI [−.031, .263]). Thus, Hypothesis 6a was not supported.

However, we found that future time perspective significantly moderated the positive relationship between quality of contact with coworkers and coworker-oriented empathic concern ($\gamma = -.350$, $SE = .131$, $p = .007$). We conducted a simple slope difference test to further examine the effect of the contact quality on coworker-oriented empathic concern contingent upon future time perspective. As can be seen in Figure 3, results suggested that the positive effect of the quality of contact with coworkers was significantly stronger for employees with a lower (−1*SD*) future

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TABLE 5 Indirect effects of contact quality on providing instrumental and emotional support via perspective taking and empathic concern conditional upon age via future time perspective

	Providing instrumental coworker support			Providing emotional coworker support		
Quality of contact with coworkers via	Coeff	CI LL	CI UL	Coeff	CI LL	CI UL
Coworker-oriented perspective taking at						
Higher age (via FTP)	.081	.002	.201	.044	.0002	.116
Lower age (via FTP)	.037	–.005	.109	.021	–.003	.060
Diff	.044	–.016	.131	.024	–.008	.076
Coworker-oriented empathic concern at						
Higher age (via FTP)	.225	.082	.400	.296	.125	.496
Lower age (via FTP)	.071	–.013	.169	.094	–.014	.204
Diff	.154	.037	.304	.202	.051	.382

Note. $N = 575$. FTP = future time perspective, Diff = difference of Coeff higher age (via FTP) and Coeff lower age (via FTP), Coeff = unstandardized coefficient, CI LL = lower level of bias-corrected 95% confidence interval, CI UL = upper level of bias-corrected 95% confidence interval.

time perspective (*simple slope* = .642, *SE* = .184, $p < .001$) as compared to employees with an average future time perspective (*simple slope* = .350, *SE* = .108, $p = .001$, *slope difference* = –.292, *SE* = .109, $p = .007$), and not statistically significant for employees with a higher (+1*SD*) future time perspective (*simple slope* = .058, *SE* = .116, $p = .614$, *slope difference* = –.584, *SE* = .218, $p = .007$). Moreover, the indirect moderation effect of age on the relationship between contact quality and coworker-oriented empathic concern via future time perspective was positive and significant (*compound effect* = .160, 95% CI [.035, .321]). These findings support Hypothesis 6b.

Finally, Hypotheses 7 and 8 addressed the moderating effect of age (via future time perspective) on the indirect relationships between contact quality on providing instrumental and emotional coworker support through coworker-oriented empathic concern. Table 5 presents the conditional indirect effects. With regard to providing *instrumental* support, we found that the indirect effect of contact quality through *perspective taking* was not contingent upon age via future time perspective, because the compound effect was not statistically significant (*compound effect* = .019, 95% CI [–.006, .058]). Hypothesis 7a was therefore not supported. However, the indirect moderation effect of age via future time perspective on the indirect relationship between contact quality and providing *instrumental* support through *empathic concern* was positive and significant (*compound effect* = .068, 95% CI [.016, .134]). Specifically, we found that the indirect effect of contact quality on providing instrumental coworker support through empathic concern was .225 (95% CI [.082, .400]) when employees' age (via future time perspective) was high (+1*SD*), vs. .071 (95% CI [–.013, .169]) when employees' age (via future time perspective) was low (–1*SD*). Moreover, the difference between the two conditions was significant (*difference* = .154, 95% CI [.037, .304]), therewith supporting Hypothesis 7b.

With regard to providing *emotional* support, we found that the indirect effect of contact quality through *perspective taking* was also not contingent upon age via future time perspective, because the compound effect was not statistically significant (*compound effect* = .011, 95% CI [–.003, .033]). Hypothesis 8a was thus not supported. However, the indirect moderation effect of age via future time perspective on the indirect relationship between contact quality and providing *emotional* support through *empathic concern* was positive and significant (*compound effect* = .089, 95% CI [.022, .168]). Specifically, we found that the indirect effect of contact quality on providing *emotional* coworker support through empathic concern was .296 (95% CI [.125, .496]) when employees' age (via future time perspective) was high (+1*SD*), vs. .094 (95% CI [–.014, .204]) when employees' age (via future time perspective) was low (–1*SD*). The differences between the two conditions was .202 (95% CI [.051, .382]), therewith supporting Hypothesis 8b.

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4 | DISCUSSION

With this study, we aimed to understand other-oriented behavioral consequences of contact quality, while taking into account how life span-related motivational differences between older and younger employees shape their responses to pleasant socioemotional experiences at work. By integrating SST with a social mindfulness lens, we examined how and when contact quality motivated employees to provide coworker support. We found that employees' coworker-oriented perspective taking and empathic concern explained the effects of contact quality on providing instrumental and emotional coworker support. In addition, our findings showed that employees' age via future time perspective moderated the positive link between high-quality contact and coworker-oriented empathic concern and the indirect relationships between high-quality contact and providing instrumental and emotional coworker support via coworker-oriented empathic concern.

4.1 | Theoretical and practical implications

Our findings have three main theoretical implications. First, our findings extend the literature on consequences of positive workplace interactions by adding a social motivational perspective. In particular, we utilized a social mindfulness lens (Van Doesum et al., 2013) to decipher the motivational mechanism through which high-quality contact facilitates coworker support. We found that contact quality motivated employees to put themselves into others' shoes in terms of understanding their cognitive and their emotional reasoning through perspective taking and empathic concern respectively, which in turn, drove their support behavior. These findings extend previous research by showing that high-quality contact is not only beneficial for the focal individuals involved (Ehrhardt & Ragins, 2019; Sias, 2005; Tran et al., 2018), but also beneficial to others (Gerpott et al., 2019; Parker & Axtell, 2001; Song et al., 2018). This underpins Van Doesum et al.'s (2013) conceptualization of social mindfulness as "a sign of prosocial intentions" (p. 95) and extends its effect in predicting actual work behavior. In this sense, our findings also advance the broader literature on discretionary and other-oriented behavior at work, such as helping behavior, prosocial behavior, and organizational citizenship behavior (Bolino & Grant, 2016; De Dreu & Nauta, 2009; Organ, Podsakoff, & MacKenzie, 2006), by studying contact quality as a meaningful antecedent of discretionary work behavior directed toward others.

Second, our findings challenge the current age-blind view on employee reactions to contact quality with coworkers by highlighting age via future time perspective as of the link between workplace interactions and social mindfulness. Specifically, we contribute to the aging literature by showing the applicability of predictions made by SST about the impact of age-related changes in future time perspective in the context of workplace interactions and coworker support. In line with SST (Carstensen, 1992, 2006; Carstensen et al., 1999), we found that the motivating effect of high-quality contact on empathic concern was stronger for relatively older compared to relatively younger employees because of their different future time perspective. In testing future time perspective as the age-related mechanism that explains the moderating effect of employee age, we followed recent recommendations on how to move research on work and aging forward (Bohlmann et al., 2018). Rather than using age as a proxy for assumed psychological differences between older and younger employees, we conceptualized and tested the theoretical mechanism that underlies the distal effect of employee age (Gielnik et al., 2018; Wang et al., 2015). Taken together, our findings contribute to overcoming the age-blind view in the literature on workplace interactions and offer a more nuanced perspective on the motivating potential of high-quality coworker contact.

Third, we integrate SST (Carstensen, 1992, 2006; Carstensen et al., 1999) with a social mindfulness perspective (Van Doesum et al., 2013) to understand the age-specific downstream consequences of workplace interactions for coworker support as an other-oriented employee behavior. By acknowledging that the indirect link between high-quality contact and coworker support via social mindfulness is moderated by employee age via future time perspective, we present an integrated theoretical model that depicts the underlying motivational mechanisms (i.e., social mindfulness, future time perspective) that explain how and through which psychological mechanisms, contact quality and employee age interact to influence supportive behavior toward coworkers.

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However, our findings did neither support the moderating effect of age and future time perspective on the relationship between the high-quality contact and coworker-oriented perspective taking, nor the conditional indirect relationship between the high-quality contact and coworker support via perspective taking. One possible reason for this finding may be that relatively older employees suffer from cognitive decline including age-related changes in processing speed, working memory, and selective attention (Salthouse, 2012; Truxillo, Cadiz, & Hammer, 2015). As such, cognitive decline may hinder older employees from effectively translating the social motivation generated from high-quality contact into the cognitively demanding activity of coworker-oriented perspective taking (Ku et al., 2015). Our findings add to life span research (e.g., Baltes, 1987; Heckhausen, Wrosch, & Schulz, 2019), highlighting the duality of aging-related gains and losses at work, where older employees are better able to manage emotions but suffer from cognitive and physical decline (Doerwald et al., 2016; Fasbender, Deller, Wang, & Wiernik, 2014; Kanfer & Ackerman, 2004). Future research may continue to explore the moderating role of age on the relationship between the high-quality contact and perspective taking and pay special attention to the cognitive processes involved.

Our findings also have several relevant practical implications. First, organizations should aim to facilitate high-quality contact between coworkers to enable employees to benefit from the knowledge and experience of each other. Organizations can support high-quality contact by creating opportunities for positive workplace interactions. Specifically, opportunities for generativity and development are important facilitators of high-contact quality; whereby opportunities for generativity are particularly important for older employees, and opportunities for development are particularly important for younger employees in the facilitation of contact quality (Henry et al., 2015; Zacher, Rosing, Henning, & Frese, 2011; Zacher, Schmitt, & Gielnik, 2012). For example, organizations can enable older employees to take on roles as mentors and experts, whereas organizations can provide trainings and networking opportunities for younger employees. Furthermore, organizations should focus on implementing age-inclusive HR practices (e.g., age-neutral recruiting activities and development) because such practices can facilitate the development of positive age-diversity climates, which, in turn, can foster positive and effective workplace interactions (Boehm & Dwertmann, 2015; Boehm et al., 2014; Burmeister et al., 2018). In addition, supervisors may intervene to create high-quality contact between their subordinates by setting a good example in demonstrating positive, natural, and cooperative interactions at work.

Second, organizations aiming at increasing instrumental and emotional coworker support may not exclusively want to rely on facilitating positive workplace interactions. They may use other practices to communicate the benefits of social mindfulness at work. For example, organizations can offer trainings to their employees in which they explain the nature and benefits of social mindfulness. In addition, organizations may implement online interventions that contain writing exercises, which stimulate employees' to reflect upon their day-to-day experiences with regard to their coworkers' thinking and feeling processes (Song et al., 2018).

Third, organizations need to be cognizant of differences between relatively younger and relatively older employees when aiming at motivating employees to support others at work. Specifically, for relatively older employees, empathic concern seems to be an important underlying mechanism through which contact quality can unfold its positive effect on instrumental and emotional coworker support, as compared to relatively younger employees. Organizations therefore should take the relevance of socioemotional goals of relatively older employees into account when implementing support mechanisms, but should be open to potentially differing needs of relatively younger employees. Supervisors, for example, may exert an other-oriented leadership style that addresses socioemotional needs and therewith elicits social mindfulness in their subordinates, in particular empathic concern (Gerpott et al., 2019). Organizations can provide training programs to supervisors as a platform to discuss age-specific needs and how to deal with them. As a result, organizations may be able to offer more targeted support to their aging workforces.

4.2 | Limitations and directions for future research

Despite the contributions of our research, this study has limitations that need to be considered when interpreting the results. The first limitation refers to the correlational design of the data that does not allow drawing causal conclusions.

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We tested the hypothesized relationships using data collected in three waves with a time lag of 2 weeks in between each wave. Compared with existing research on contact at work that is often based on cross-sectional data, this design offers stronger support for the proposed mechanisms (Wang et al., 2017). However, the current design only captures a snapshot of how the investigated relationships occur. Future research should explore how workplace relationships develop over time and also consider potentially reverse causality to understand the complex dynamics between contact quality, social mindfulness, and coworker support. Possible reverse causality does not necessarily undermine the hypothesized order of constructs, because the relationship between workplace interactions and coworker support may be bidirectional in nature. Future studies may use cross-lagged panel designs that measure the study variables at several time points to further examine how the relationships between contact quality, social mindfulness, and coworker support may change and adapt over time. In addition, future studies could use (quasi-)experimental designs to specify the causal nature of the relationships and investigate possible reverse causality.

Second, given all our study variables were assessed via self-report, common-method bias could be a concern. However, the temporal separation of the data partly alleviates the concern for common method bias because a temporal separation can reduce the inflation of effects sizes (Podsakoff et al., 2003). In addition, we considered a moderation variable (i.e., future time perspective) to increase the complexity, diminishing the risk of participants' preconceived theory about the research outcomes (Chang, van Witteloostuijn, & Eden, 2010). Nevertheless, future research ought to consider collecting data from other sources, for example, from recipients, not providers, of coworker support.

Third, the cross-cultural generalizability of our findings may be limited. As we obtained data from employees based in the United Kingdom, we cannot draw conclusions about other countries, especially countries that are associated with more collectivistic value orientations. Even though perspective taking and empathic concern can be higher in collectivistic than in individualistic countries (Chopik, O'Brien, & Konrath, 2017), social norms—that are typically stronger in collectivistic cultures—could overshadow the individual motivational mechanisms leading to coworker support (Markus & Kitayama, 1991). Thus, we recommend that future research investigates the cross-cultural applicability of our findings in other, especially collectivistic, countries.

This study also leaves some issues unaddressed, suggesting areas for further investigation. In this respect, research may investigate other potential moderators that shape the relationships between employees' contact quality with coworkers, coworker-oriented perspective taking and empathic concern, and coworker support. For example, job type may be a relevant moderator of the investigated relationships given that different emotional, cognitive, and physical demands of different jobs can shape employees' behavior at work (Bouville, Dello Russo, & Truxillo, 2018). In fact, some job characteristics, such as job demands, may prevent high-quality contact from unfolding its effects on coworker support because job demands that bind cognitive and emotional resources that are necessary to engage in social mindfulness could undermine this process. In turn, other job characteristics may support employees in benefitting from high-quality contact with coworkers, such as job autonomy as the degree to decide upon work tasks and procedures (Bouville et al., 2018), which gives room to employees' motivation to be socially mindful depending on their contact quality with coworkers.

Moreover, coworker diversity may be a meaningful boundary condition, in particular against the background of increasingly diverse workforces (Roberson, Ryan, & Ragins, 2017). Previous research has shown that perceived dissimilarity can hinder employees from putting themselves into others' shoes in terms of perspective taking (Williams et al., 2007). At this point, high-quality contact comes into place as a means to improve employees' workplace relationship with their diverse coworkers. It is conceivable that employees may benefit even more from high-quality contact with diverse coworkers, because high-quality contact may not be so self-evident among diverse (vs. similar) coworkers, and can therefore have even stronger motivational benefits for discretionary behavior toward (diverse) others. This generates a new research angle, as we have not yet understood how to best facilitate discretionary behavior directed at diverse others at work, who may be different on a variety of characteristics, including for example gender and ethnicity. Understanding this dissimilarity-focused relational perspective of support behavior in more detail is particularly relevant due to the increasing diversity of today's workforces.

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Furthermore, it would be intriguing to understand the dyadic interactions between coworkers with regard to potential cross-over effects of the perception of social mindfulness. Recent research showed that perceiving others to be socially mindful promotes cooperative behaviors (Dou, Wang, Li, Li, & Nie, 2018), which suggests that employees' perceptions of their coworkers' social mindfulness is also relevant for their discretionary behavior. Future research could examine reciprocal cross-over effects between employees' social mindfulness, their perceptions of their coworkers' social mindfulness, and coworker support as a consequence of high-quality contact at work.

5 | CONCLUSION

Our study provides novel insights into the motivational effects of employees' contact quality with coworkers on their instrumental and emotional coworker support, by integrating SST with a social mindfulness lens. By demonstrating how and when high-quality contact facilitates positive other-oriented behavior, we contribute to research on workplace relationships and the ongoing discussion on age differences at work in times of global workforce aging.

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ENDNOTES

[1] We sampled across a wide age range: 19.2% were aged 18–29 years, 20.2% were aged 30–39 years, 20.5% were aged 40–49 years, 26.9% were aged 50–59, and 13.2% were aged 60–69 years reflecting Respondi's panel of over 22,000 employed people in the United Kingdom (Respondi, 2019).

[2] We conducted a sensitivity analysis to investigate whether the results differ when modeling missing values ($N = 575$) as compared to using listwise deletion ($N = 377$). Results revealed that the estimated direct, interaction, and (conditional) indirect effects remained stable and significant in the hypothesized direction even if we used listwise deletion.

[3] To investigate whether the relationships are robust, we estimated the final model with and without control variables (Bernerth & Aguinis, 2016). Results revealed that the pattern of results remained unchanged as the estimated direct and indirect effects remained stable and significant in the hypothesized direction even if we did not include control variables. Results can be provided from the first author upon request.

ORCID

Ulrike Fasbender https://orcid.org/0000-0001-6711-5732
Anne Burmeister https://orcid.org/0000-0003-3980-7947

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