

The effect of relationship conflict on
management team performance:

The mediating effect of psychological safety

Ingri Bruvoll and Vanessa Gilje Børresen



Master thesis at the Department of Psychology

University of Oslo

14th of May 2021

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND
MANAGEMENT TEAM PERFORMANCE

© Ingri Bruvoll and Vanessa Gilje Børresen

2021

The Effect of Relationship Conflict on Management Team Performance: The Mediating Role
of Psychological Safety

Ingri Bruvoll and Vanessa Gilje Børresen

<http://www.duo.uio.no>

Trykk: Reprosentralen, Universitetet i Oslo

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

Abstract

The purpose of this study is to examine whether psychological safety mediates the association between relationship conflict and management team performance. Although much empirical research has been done on the association between relationship conflict and team performance, there is little research investigating the processes that can explain this association. We suggest that team psychological safety will serve as a mediator between relationship conflict and team performance. The data is based on a sample of 160 Norwegian management teams, that have answered a questionnaire called “*effect*”, from Bang and Midelfart’s (2019) work. Linear regression analyses and PROCESS by Hayes (2017) were used to test the hypotheses. All hypotheses were supported. We found a significant indirect effect of relationship conflict on management team performance, mediated by psychological safety. In addition, relationship conflict was negatively related to psychological safety and management team performance, while psychological safety was positively related to management team performance. Our study indicates that psychological safety can play an important role in explaining how relationship conflict is negative for management team performance. Increasing levels of relationship conflict seem to decrease the level of psychological safety in the team, making it less safe for the team members to speak up, ask questions, voice their concerns, and admit mistakes, which again will impede management team performance.

Acknowledgments

First and foremost, we would like to thank our supervisor, Henning Bang, who has helped, encouraged and guided us throughout this project. Thank you for your expertise, enthusiasm, patience and helpful discussions. We could never have done this without your help and motivation. We also want to thank you for letting us get access to your data material on management teams, and to further investigate variables within the data.

We are also thankful for the good cooperation with each other. The work on this project has not only led to a master thesis, but also a great friendship. Lastly, we would like to thank our partners, friends, family, and co-workers who have supported us throughout this project.

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND
MANAGEMENT TEAM PERFORMANCE

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND
MANAGEMENT TEAM PERFORMANCE

Table of contents

Theory and hypotheses	2
<i>Management teams</i>	2
<i>Team performance</i>	2
Task performance.	3
Individual well-being and growth.....	3
<i>Relationship conflict</i>	3
<i>Psychological safety</i>	6
<i>Relationship conflict and psychological safety</i>	7
<i>Psychological safety and team performance</i>	9
<i>Psychological safety as a mediator between relationship conflict and team performance</i> ..	11
Method	12
<i>Sample, procedure and design</i>	12
<i>Measures</i>	13
Relationship conflict.	13
Psychological safety.	14
Task performance.	14
Individual well-being and growth.....	15
<i>Aggregation</i>	16
<i>Data analysis</i>	17
<i>Control variable</i>	18
Team size.....	18
Results	19
<i>Main analysis</i>	19
Regression analysis.....	20
Mediation analysis.....	20
Discussion	22
<i>Theoretical implications</i>	23
<i>Practical implications</i>	24
Relationship conflict resolutions.	24
Challenges related to resolving relationship conflicts.	25
Implementing psychological safety.	26
Challenges to implementing psychological safety.	26
<i>Limitations</i>	27
Conclusion	28
References	29

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND
MANAGEMENT TEAM PERFORMANCE

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

The nature of much of the work in today's organizations requires judgement, coping with uncertainty and complexity, suggesting new ideas, and coordinating and communicating with others (Edmondson, 2019, p. 39). This is particularly true for the management teams in the organizations, consisting of leaders from different organizational units who have a responsibility for making complex decisions, uniting and coordinating conflicting goals, plans and processes, and making the organization function effectively (Bang & Midelfart, 2019). As the members of management teams make complex and difficult decisions, different kinds of conflicts (e.g., task and relationship conflict) are inevitable (Janssen, 1999). While studies show mixed results regarding the effect of task conflicts on team performance, relationship conflict, defined as "interpersonal incompatibilities among group members, which typically includes tension, animosity, and annoyance among members within a group" (Jehn, 1995, p. 258), is consistently found to be detrimental to team performance (De Dreu & Weingart, 2003; de Wit et al., 2012).

Jehn et al. (2008) and Rispens et al. (2011) highlighted the importance of examining mediating mechanisms between relationship conflict and group outcomes to identify why conflict has negative effects on team performance. We suggest that the level of psychological safety in management teams may function as a mediator between relationship conflict and team performance, and thus shed light on why relationship conflicts are detrimental to team performance. Psychological safety means that team members feel safe to take interpersonal risks, such as speaking up, asking questions or admitting an error, without the fear of the possible negative consequences of doing so (Edmondson, 1999). How to manage the interpersonal threats experienced by employees when admitting uncertainty or voicing concerns, is one of the challenges faced by today's organizations. When team members do not feel safe to take interpersonal risks, collaboration is likely to suffer (Edmondson & Lei, 2014). A psychologically safe environment sets the stage for more honest, challenging and collaborative work processes, by encouraging people to speak up and dare to be themselves. As a result, a more efficient work environment could be established (Edmondson, 2019, p.18). Studies indicate that psychological safety is associated with improved team performance (e.g., Edmondson, 1999; Schaubroeck et al., 2011), meaning that when the environment in which people work is psychologically safe, speaking up is encouraged, and learning from mistakes is promoted. Therefore, managers should work to create a psychologically safe environment to improve team learning and performance (Edmondson, 1999; Nembhard & Edmondson, 2012; Edmondson, 2019).

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

The main aim of our study is to examine to what extent relationship conflict has an indirect effect on management team performance through psychological safety as a mediator. We also examine to what extent relationship conflict is negatively related to management team performance and psychological safety, and if psychological safety is positively related to management team performance.

Theory and hypotheses

Management teams

A management team can be defined as “a group of individuals, each of whom has a personal responsibility for leading some part of an organization, [and] who are interdependent for the purpose of providing overall leadership for a larger enterprise” (Wageman & Hackman, 2010, p. 477). Management teams are teams working with cognitive decision-making tasks. They work with quality assurance, anchor and make decisions, discuss and analyze problems, and find solutions for how to solve them (Bang & Midelfart, 2019, p. 24). The team members need to be analytical, but also possess interpersonal and communicational skills. Since people not only communicate and process information cognitively but also socially, the team members will continuously have to deal with the relational challenges that could occur during the decision-making process (Forsyth, 2014). Effective management teams make an important difference for how the organization performs and help the team members learn and grow to better perform the task at hand (Hackman, 2002; Wageman et al., 2008).

Team performance

According to Hackman (2002), outcomes from teamwork should be seen in a three-dimensional perspective: task performance, individual well-being and growth, and team viability. Bang and Midelfart (2017) present a model for analyzing management team effectiveness with four clusters of variables: input factors, process factors, emergent states, and output factors. They suggest that management teams do not primarily exist to create team viability; their “raison d’etre” lies in their ability to achieve high quality task performance for the organization, and individual well-being and growth for the team members. Following de Wit et al. (2012), Bang and Midelfart (2017, 2019) therefore propose that team viability should be separate from the other output factors (that is, task performance and individual well-being and growth). Hence, we use task performance and individual well-being and

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

growth as indicators of team performance. When we use the term “team performance” in this thesis, we refer to both task performance and individual well-being and growth.

Task performance. Task performance is about to what extent the team makes “a significant and positive contribution to the success of the organization” (Bang & Midelfart, 2017, p. 336). Inspired by the work of Drath et al. (2008), Bang and Midelfart (2017) propose that task performance in management teams is about creating direction (agreement on the direction and goals of the organization), alignment (coordination of goals, plans and strategies), and commitment (ownership and commitment to the team’s goals and decisions). In his article on executive teams, Nadler (1998) specifies in more detail the types of results management teams produce: “the quality of decision-making, the ability to implement decisions, the outcomes of teamwork in terms of problems solved and work completed, and finally, the quality of institutional leadership provided by the team” (Nadler, 1998, p. 23-24). In this study, we follow Bang and Midelfart (2017) and define task performance in management teams more generally as to what extent “the results produced by the team make a significant and positive contribution to the success of the organization—in other words that the results create substantially added value for the organization” (p. 336).

Individual well-being and growth. Individual well-being and growth is defined as whether “the group-experience, on balance, contributes positively to the learning and personal well-being of the individual team member” (Hackman, 2002, p. 28). According to Hackman (1990) an effective team contributes to the individual member’s well-being, motivation, learning and growth. It creates added value for the members by providing them with relevant information, learning and growth, and help the members to become better at doing their job (Bang & Midelfart, 2017).

Relationship conflict

Conflict is inevitable when the management team members make complex and difficult decisions (Janssen, 1999). De Dreu and Weingart (2003) define conflict as the process resulting from the tension between team members because of real or perceived differences. Past research has distinguished between task conflict, relationship conflict, and process conflict (de Wit et al., 2012). This thesis will address relationship conflict, which is defined as “interpersonal incompatibilities among group members, which typically includes tension, animosity, and annoyance among members within a group” (Jehn, 1995, p. 258).

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

It often refers to a perception of disagreements over issues that are personal, such as personal taste, political preferences, values, and interpersonal style (Jehn, 1995).

Past research has revealed negative associations between relationship conflict, task performance, and team member satisfaction (De Dreu & Weingart, 2003; de Wit et al., 2012). De Dreu and Weingart (2003) conducted a meta-analysis of 30 studies examining the association between task conflict and relationship conflict on the one hand, and task performance and team member satisfaction on the other. They found a mean negative correlation between relationship conflict and task performance ($r = -.22$), and between relationship conflict and team member satisfaction ($r = -.54$). A later meta-analysis, conducted by de Wit et al. (2012), confirmed the results of De Dreu and Weingart (2003) and found a negative correlation between relationship conflict and task performance ($r = -.16$), and relationship conflict and group member satisfaction ($r = -.54$).

There are several theories which try to explain why relationship conflict is detrimental to task performance. One such theory is the information-processing perspective (Carnevale & Probst, 1998). In an experimental study, Carnevale and Probst (1998) showed that participants were more flexible in their thinking and more creative in their problem solving when they participated in cooperative negotiation with a low conflict level. The researchers compared this group with a control group where there was no conflict present. On the other hand, when participants took part in competitive negotiation with a high conflict level, their cognitive flexibility and creative thinking decreased substantially. These effects were explained by cognitive load, which reduces the ability of a group member to assess new information provided by other members (Pelled, 1996). High levels of relationship conflict increase the arousal level of the group members, and this cognitive load interferes with cognitive flexibility and creative thinking (De Dreu & Weingart, 2003).

In addition to the information-processing perspective, relationship conflict makes members less receptive to the ideas of other group members, some of whom they may not like or who may not like them (Jehn, 1995; Pelled, 1996). The group members are more likely to focus on the information that they possess themselves and that supports their own viewpoints, rather than listening to the other group members' thoughts and ideas. According to the model of motivated information processing in groups (MIP-G model), relationship conflict reduces the social and epistemic motivation to process information systematically (De Dreu et al., 2008; de Wit et al., 2013). De Dreu et al. (2008, p. 23) define epistemic motivation as "the

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

willingness to expend effort to achieve a thorough, rich and accurate understanding of the world, including the group task or decision problem at hand.” Social motivation is defined “as the individual preference for outcome distributions between oneself and other group members and can be ‘pro-self’ (the individual is concerned with their own outcomes only) or ‘prosocial’ (the individual is concerned with joint outcomes and fairness)” (De Dreu et al., 2008, p. 23). According to the MIP-G model, epistemic motivation is an important aspect in a decision-making process when it is crucial to get input from all the group members. If the epistemic motivation is being reduced because of a relationship conflict, the group members might intentionally choose not to listen to and not to use the information from their co-workers. Additionally, relationship conflict may trigger the competitive social motivation, which can create a focus on ‘winning’ the discussion, instead of developing the best solution for the team (De Dreu et al., 2008; de Wit et al., 2013). Therefore, high levels of relationship conflict may result in discussing the conflict rather than working on the team’s task (Pelled, 1996). This distraction could possibly limit the group members’ cognitive functioning and thus inhibit the task performance (Jehn, 1995; Simons & Peterson, 2000).

Relationship conflict is characterized by tension, hostility, stress, and anxiety among the group members (Jehn, 1995). The threat-rigidity theory can help explain why this can happen (Staw et al., 1981). The theory suggests that a perceived social threat, such as relationship conflicts, activates a stress response. This stress response might create, among other things, cognitive rigidity, narrowed reasoning, defensiveness, and closed-mindedness. The relationship conflict can either create an intensification (fight) or avoidance (flight) response (O’Neill & McLarnon, 2018). In these cases, the mental resources of the group members are used to deal with the feelings that arise from the relationship conflict, not the task at hand. This is likely to be detrimental to the task performance (O’Neill & McLarnon, 2018).

The tension, stress, and anxiety level emerging during relationship conflict, does not only affect task performance, but it is also most likely detrimental to the individual’s well-being and growth as well (Dijkstra et al., 2005). According to Jehn (1995), interpersonal tension reduces the satisfaction with one’s job, task group, and organization. This is mainly because it enhances negative reactions such as anxiety and fear. When a relationship conflict is experienced as threatening, it is more likely that it becomes more emotional and elicits anger and frustration. According to Dijkstra et al. (2005), conflict acts as a major stressor at work, and the way group members respond to this stressor determines the outcomes. If the

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

conflict response is characterized by feelings of helplessness and flight behavior, it is more likely that the group member experiences more organizational stress. This organizational stress could possibly result in a decrease in individual well-being (Dijkstra et al., 2005). In addition, if the group climate is characterized by tension and frustration, it is possibly detrimental to the individual's well-being, motivation, learning, and growth (Jehn, 1995; De Dreu & Weingart, 2003).

All the perspectives presented above suggest that relationship conflict decreases the communication quality, cooperation, and understanding among the group members (Jehn & Bendersky, 2003). Relationship conflict also increase the tension, stress, and anxiety among them, and conflict-related stress and emotions may prohibit straight and analytic thinking (Jehn & Bendersky, 2003; van Woerkom & van Engen, 2009). These consequences are suggested to affect team performance (Jehn & Bendersky, 2003; De Dreu & Weingart, 2003). This leads us to our first hypotheses:

Hypothesis 1a: Relationship conflict is negatively associated with task performance.

Hypothesis 1b: Relationship conflict is negatively associated with individual well-being and growth.

Psychological safety

Edmondson (1999, p. 354) defines psychological safety as “the shared belief that the team members are safe to take interpersonal risks by asking questions, discussing problems or sharing concerns without being embarrassed or rejected.” Psychological safety is not the same as comfortable situations or group cohesiveness, but is rather the shared belief that problems, concerns, and ideas can be constructively discussed without the fear of losing face (Nembhard & Edmondson, 2012; Edmondson, 2019, p.17). Psychological safety enables people on different sides of a conflict to speak candidly about what is bothering them so that the conflict is discussed and learned from different points of view. Mostly, people want to be perceived as competent, positive, helpful, and knowledgeable and tend to avoid situations where they could be perceived as the opposite (Edmondson, 2003; 2019). Speaking up about concerns or voicing new ideas is important for team and organizational learning, but it is not without risk. New ideas may not always lead to success, and the individual is at risk of being perceived as unintelligent or wasting team members' time. This may in turn lead to employees not

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

contributing to the learning processes in the future and thereby inhibit both individual and organizational learning (Detert & Burris, 2007). Edmondson (1999) and Nembhard and Edmondson (2012) found that psychological safety is a key determinant for what members of a team are willing to ask for or propose to the group. Psychological safety creates a context where taking an interpersonal risk is encouraged, where employees are more likely to speak up, make suggestions, and challenge the current way of doing things (Walumbwa & Schaubroeck, 2009).

A conceptual sibling of psychological safety is trust. Both trust and psychological safety describe psychological states including perceptions of risk or vulnerability (Edmondson et al., 2004). They both tell us something about interpersonal relationships, but trust does not imply anything about the climate in which people work the way psychological safety does. Mayer et al. (1995, p. 712) define trust as “the willingness of a party to be vulnerable to the actions of another party, based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control the other party.” Trust is a construct between two individuals and is more often discussed at the individual level of analysis (Edmondson, 2004, p. 244), whereas psychological safety is more often discussed at the group level of analysis and considers the work group as one unit (Edmondson, 1999; Edmondson, 2019, p. 11). Previous researchers have pointed out that trust is associated with both relationship conflict and management team effectiveness (Simons & Peterson, 2000; Camelo-Ordaz et al., 2014). In their meta-analysis, de Wit et al. (2012) found a negative association between relationship conflict and trust ($r = -.53$). In teams experiencing high levels of relationship conflict, it is likely that group members do not share a mutual understanding and acceptance (Langfred, 2007). Johnson and Avolio (2019) argue that disagreements related to personalities and values threaten the respect and trust within a team. Consequently, the level of trust is expected to be low in the presence of relationship conflict (Langfred, 2007; Camelo-Ordaz et al., 2014; Johnson & Avolio, 2019).

Relationship conflict and psychological safety

We suggest that the tension, animosity, and stress that emerge in relationship conflicts can possibly affect the psychological safety within the team. It can feel challenging to speak up about concerns and voicing new ideas when some of the team members do not listen or show hostility. This could feel like a huge interpersonal risk and can lead to team members

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

refraining from contributing with their ideas and opinions. Johnson and Avolio (2019) argue that teams with increasing levels of relationship conflicts may lead to a decreased experience of a psychologically safe environment. This may be the case as a psychologically safe environment mainly comes from interpersonal relationships and is linked to the trust and respect the team members have for each other (Edmondson, 1999). That is, when disagreements related to personalities and values threaten the respect and trust within the team, the level of psychological safety may be reduced (Jehn et al., 2008; Johnson & Avolio, 2019).

The anxiety and stress level emerging from relationship conflicts may result in anger and frustration (Jehn, 1995). In these cases, it would probably create an environment where the team members are afraid to speak up, which characterizes an absence of psychological safety (Carmeli et al., 2009). As previously mentioned, the threat-rigidity theory proposes that a perceived social threat, such as a relationship conflict, could trigger cognitive rigidity, defensiveness, and closed-mindedness (Staw et al., 1981; O'Neill & McLarnon, 2018). These behaviors can be considered as the opposite of behaviors related to psychological safety like for instance speaking up and challenging the current way of doing things (Walumbwa & Schaubroeck, 2009).

The relationship between team members is an important factor for psychological safety (Dutton & Heaphy, 2003; Carmeli et al., 2009). Rispens et al. (2011) argue that relational closeness (“the degree to which work group members personally know each other and feel close to each other”) acts as a buffer in the negative association between relationship conflict and how the work group functions. High-quality relationships are therefore important within a team because it can reduce the negative effects of relationship conflicts. It is conceivable that low levels of relationship conflict could be close to the experience of high-quality relationships, which are characterized by mutual respect (Carmeli et al., 2009). Carmeli et al. (2009) suggest that in high-quality relationships individuals develop a sense of safety to comfortably speak up without worrying about the interpersonal consequences of doing so. As a result, the team is robust enough to overcome any disagreements or misunderstandings that they may encounter.

Based on the arguments above, we propose that relationship conflict can reduce the level of psychological safety in management teams:

Hypothesis 2: Relationship conflict is negatively associated with psychological safety

Psychological safety and team performance

Psychological safety has been demonstrated to have an association with team performance, both directly and indirectly (e.g., Edmondson, 1999; Schaubroeck et al., 2011; Bilstad, 2016). Teams with higher levels of psychological safety have less fear of the negative consequences of interpersonal risk-taking, and the team members are encouraged to speak up about new ideas or concerns. According to Edmondson (2019, p.18), psychological safety lay a foundation for a more candid, more stimulating, and more collaborative work, which in turn promotes a more efficient work environment. When speaking up about one's opinion outweigh the possible negative consequences of doing so, the team members are free to be engaged in the task at hand, to cooperate better, engage in learning behaviors and perform better (Kahn, 1990; Edmondson, 1999, 2004; Schaubroeck et al., 2011; Nembhard & Edmondson, 2012).

Research on psychological safety emphasizes how a shared understanding of the work environment as safe for interpersonal risk-taking, encourages and lead team members to engage in learning activities, and thereby improve team performance (Nembhard & Edmondson, 2012). Edmondson (1999, p. 353) conceptualize learning as “an ongoing process of reflection and action, characterized by asking questions, seeking feedback, experimenting, reflecting on results, and discussing errors or unexpected outcomes of actions”. Huang et al. (2008) studied psychological safety, team learning and team performance in 60 different R&D teams at the Industrial Technology Research Institute in Taiwan. Their data revealed a positive association between psychological safety and team performance, and that team learning mediated this effect. The study implies that psychological safety is key for team learning to occur and thereby improves team performance. Edmondson (1999) found similar results in her study of 51 work teams in a manufacturing company, where the aim was to model the effect of psychological safety and team efficacy together on learning and performance. The results showed that psychological safety significantly predicts team learning. They also showed that learning behavior mediates the relationship between psychological safety and team performance.

Psychological safety is also seen to improve management team performance through dialogical communication (Bilstad, 2016). Bilstad (2016) found an indirect association between psychological safety and team performance, where the relationship was mediated by dialogical communication – that is, by the team members' ability to communicate openly and

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

explore each other's perspectives. Open communication through experimentation, discussion and decision-making is a determinant of successful team performance (Huang et al., 2008).

Baer and Frese (2003) also investigated how psychological safety is vital for task performance. The authors studied the relationship between process innovation, climate for initiative, psychological safety and firm performance in 47 medium-sized German firms. The findings suggested that teams with high levels of psychological safety performed better than those with low levels of psychological safety. That is, initiative leads to the development of new ideas and better implementation of innovations, which in the long run may lead to better performance. Still, innovation alone is not enough to improve performance but should be accompanied by a climate for initiative and psychological safety (Baer & Frese, 2003). In addition to innovation, Kessel et al. (2012) investigated creative performance in health care teams. They collected data from 73 patient-centered health care teams working in the field of rare diseases. The study indicates that there is a positive association between a team's mutual feeling of psychological safety and creative performance. Creative performance is also shown to have a positive association with knowledge sharing, a type of learning behavior, which is strongly connected to psychological safety (Edmondson, 1999; Nembhard & Edmondson, 2012).

As mentioned, psychological safety enables the team members to engage in learning behaviors such as asking questions, discussing problems or exploring new ideas (Edmondson, 1999, 2004; Nembhard & Edmondson, 2012). A growing body of research shows how involvement in such learning activities and collaboration on important tasks foster the development of high-quality working relationships (Wageman et al., 2008). Wageman et al. (2008) describe management teams as "wonderful avenues for learning, expanding knowledge, acquiring new skills, and exploring fresh perspectives of the world" (p. 11), including how exploration and collaboration may improve interpersonal relationship within the team. Carmeli et al. (2009) claim that high-quality relationships foster an *emotional carrying capacity*, based on Dutton and Heaphy's (2003) notion that these types of relationships have a greater capacity to accept a range of emotions and behaviors, handle differences and bounce back from difficulties. This means that the team members do not have to monitor their own behaviors or to be afraid to speak up, in fear of being embarrassed or ashamed of their behaviors. As a result, Carmeli et al. (2009) states that in high-quality relationships, people develop a sense of psychological safety, which in turn is related to high levels of individual learning and growth (Dutton & Heaphy, 2003).

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

Being engaged in discussions and being part of the improvement and development of the team processes make the environment enriching and satisfying and give the team members a sense of belonging (Nembhard & Edmondson, 2012). According to Hackman (2002, p. 28), individual well-being is when “the group-experience, on balance, contributes positively to the learning and personal well-being of the individual team member”. Nembhard and Edmondson (2012) also state that psychological safety lays the foundation for speaking up, collaboration and experimentation and how this results in better organizational performance and more satisfying work environments.

We postulate that those team members who experience their workplace as psychologically safe will engage in learning behaviors, express their true self, develop and grow. For information sharing, collaboration, exploration and individual well-being and growth to occur, the environment in which the team members work must be perceived as safe for interpersonal risk-taking (Kahn, 1990; Edmondson, 1999; Nembhard & Edmondson, 2012). We therefore propose the following hypotheses:

Hypothesis 3a: Psychological safety is positively associated with task performance.

Hypothesis 3b: Psychological safety is positively associated with individual well-being and growth.

Psychological safety as a mediator between relationship conflict and team performance

Curşeu and Schreijer (2010) studied the interplay between trust and conflict as antecedents of team effectiveness on 897 students, divided into 174 teams, at a Dutch university. The results of the study supported trust as a mediator in the association between task and relationship conflict and team effectiveness. Both conflict types affected the effectiveness by shattering the trust within the teams that were studied (Curşeu & Schreijer, 2010). The same result was also found by Lau and Cobb (2010), arguing that trust mediates the association between relationship conflict and task performance. In teams with high levels of relationship conflict, Langfred (2007) propose that it is likely that members do not share a mutual understanding of one another, and therefore the level of trust is expected to be low. Since trust is a construct related to psychological safety, and trust enables psychological safety at work (Edmondson, 2004), we are interested in exploring whether psychological

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

safety could act as a mediator in the association between relationship conflict and management team performance.

Psychological safety is found to mediate the relationship between high-quality relationships and learning behaviors (Carmeli, 2007; Carmeli et al., 2009; Carmeli & Gittel, 2009), and learning behaviors are significantly related to enhanced team performance (Edmondson, 1999; Nembhard & Edmondson, 2012). Carmeli et al. (2009, p. 86) point out how “individuals in high-quality relationships are likely to be engaged in trial and error and be creative in their actions, a process which is enabled through feelings of psychological safety”. This implies that when good interpersonal relationships take place, a psychologically safe environment may be developed, which in turn fosters learning behaviors by allowing individual observations and perspectives to build upon each other and create new value for the team. As a result, team performance is potentially enhanced (Edmondson, 1999; Nembhard & Edmondson, 2012; Edmondson, 2019).

If the experience of a high-quality relationship is inversely related to low levels of relationship conflict, we suggest that psychological safety may mediate the association between relationship conflict and team performance. This leads us to the following hypotheses:

Hypothesis 4a: Psychological safety mediates the association between relationship conflict and task performance

Hypothesis 4b: Psychological safety mediates the association between relationship conflict and individual well-being and growth.

Method

Sample, procedure and design

This master thesis is based on data from a sample of 160 Norwegian management teams from governmental agencies (25.9%), municipal agencies (17.1%), and private or public enterprises (56.9%). The respondents consist of 50.1% men and 49.9% women. The team members have answered a questionnaire called “*effect*”, based on Bang and Midelfart’s (2019) work. “*effect*” measures different aspects of how a management team functions and how effective it is, including in total 24 variables. The size of the management teams included in the sample ranged from 3 to 19 group members, with a mean of 7.19. 50%

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

of the management teams were top management teams (level 1), 32% were management teams at level 2, while 18 % of the management teams were located at level 3 or lower in the organizational hierarchy. All the individuals from the management teams are first-time responders and have answered the questionnaire from March 2017 until October 2019.

Measures

We are using the following five scales from “*effect*”: Relationship conflict, Psychological safety, Task performance, Decision quality and Individual well-being and growth. Each scale consists of 3-7 questions on a 7-point *Likert-scale*, where the participants ranged their agreement in the questions from 1 – 7: 1=strongly disagree; 2=disagree; 3=somewhat disagree; 4=neither agree nor disagree; 5=somewhat agree; 6=agree; 7=strongly agree. In addition, items can be scored as “Don’t know/not applicable”.

Cronbach’s alpha was used to measure scale reliability for all the variables and refers to a generalized measure of internal consistency of a multi-item scale (Peterson, 1994). Guidelines for acceptable values for Cronbach’s alpha are normally above .70, where values lower may indicate an unreliable scale (Kline 1999; Field, 2013, p. 709). Still, this threshold has been criticized for being too rigid when measuring psychological constructs, and values lower than .70 can realistically be expected due to the diversity of the constructs being measured (Nunnally, 1978; Kline, 1999). In the current research project, the threshold value ($\alpha \geq .70$) was met for all scales (see table 1).

Relationship conflict. Relationship conflict is defined as “interpersonal incompatibilities among group members, which typically includes tension, animosity and annoyance among members within a group” (Jehn, 1995, p. 258). The scale is inspired by Jehn’s (1995) original scale, adjusted to the realm of management teams, and consists of the following items:

1. *There are personal conflicts between some members of the management team.*
2. *There are negative tensions among members of the management team.*
3. *There are members of the management team who do not work well together.*

Estimated reliability for relationship conflict was $\alpha = .91$.

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

Psychological safety. Psychological safety is defined as “the shared belief that the team members are safe to take interpersonal risks by asking questions, discussing problems or sharing concerns without being embarrassed or rejected” (Edmondson, 1999, p. 354). Our scale builds on the scales designed by Edmondson (1999), Nembhard and Edmondson (2006), Tucker et al. (2007) and Garvin et al. (2008), adjusted to the context of management teams, and consists of the following items:

1. *It is easy to bring up problems and controversial issues in this management team.*
2. *It is safe to take a risk in this management team.*
3. *It is easy to ask other management team members for help.*
4. *It is safe to openly express your opinions in the management team.*
5. *There is room for expressing your uncertainty in the management team.*

Estimated reliability for psychological safety was $\alpha = .91$.

Task performance. We define task performance as to what extent “the results produced by the team make a significant and positive contribution to the success of the organization—in other words that the results create substantially added value for the organization” (Bang & Midelfart, 2017, p. 336). As previously mentioned, task performance in management teams includes making high quality decisions, and creating direction, alignment and commitment. We wanted to measure task performance in a way that reflected all these aspects of the outcomes of management teams and therefore suggest combining the two outcome scales from “*effect*”: “general task performance” and “decision quality”. To justify the combination of these two scales into one scale, we conducted a principal component analysis with varimax rotation of the scales. The seven items of the two scales loaded on only one factor, with Eigenvalue above 1.0 as criterion (see table 1).

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND
MANAGEMENT TEAM PERFORMANCE

Table 1

Initial Eigenvalues and Extraction sum of square loadings of the 7 items from the variables “Task performance” and “Decision quality”

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.740	67.712	67.712	4.740	67.712	67.712
2	.672	9.604	77.315			
3	.457	6.522	83.837			
4	.387	5.531	89.369			
5	.308	4.407	93.776			
6	.237	3.380	97.155			
7	.199	2.845	100.000			

Note: Only one factor had an Eigenvalue higher than 1.

Hence, we created a new variable – task performance – consisting of both the scales general task performance and decision quality from the “effect”-questionnaire. The scale consists of the following items:

1. *We are a high-performance management team.*
2. *Our management team adds obvious value to the organization.*
3. *Our management team sets a clear direction for the organization/our unit.*
4. *Our management team ensures that goals and processes are well coordinated and aligned.*
5. *We consistently make high quality decisions in our management team.*
6. *The vast majority of decisions made by the management team turn out to be beneficial for the organization.*
7. *Those affected by management team decisions are generally very satisfied with our decisions.*

Estimated reliability of the new variable task performance was $\alpha = .92$.

Individual well-being and growth. Individual well-being and growth is defined as the extent to which “the team contributes to the individual member’s well-being, motivation, learning and growth” (Bang & Midelfart, 2017, p. 337). The scale builds on Hackman’s

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

(2002) and Wageman et al.'s (2008) conceptualization of individual well-being and growth, and consists of the following items:

1. *Being a member of the management team contributes to my learning and professional development.*
2. *We give each other emotional support in this management team.*
3. *I feel very energized by our management team meetings.*
4. *I often get valuable advice and feedback from my colleagues in the management team.*
5. *Team members are always given useful input when they raise issues in management team meetings.*

Estimated reliability of the scale was $\alpha = .86$.

Aggregation

In team research, data is often gathered at the individual level of analysis and aggregated into team level of analysis. Since we are conducting analyses on team level, data aggregation is necessary. To investigate whether it is meaningful to aggregate scores from individual level to team level, measures of interrater agreement and interrater reliability will be analyzed using r_{WG} and ICC(2) (LeBreton & Senter, 2008).

R_{WG} is an estimate of interrater agreement, and it is vital to show high within group agreement to justify using the group mean as an indicator of a work group variable. It assesses the agreement among the group members “by comparing the variance obtained from multiple raters to the variance one might obtain if the ratings were entirely due to random measurement error” (LeBreton et al., 2003). The acceptable threshold level for r_{WG} is debated but can be considered on a continuum where .00-.30 = “lack of agreement”, .31-.50 = “weak agreement”, .51-.70 = “moderate agreement”, .71-.90 = “strong agreement”, and .91-1.00 = “very strong agreement” (LeBreton & Senter, 2008; Biemann et al., 2012). The researchers suggest that the cut-off points for r_{WG} must be seen in relation to the type of research that is done. In this thesis, all values show strong agreement, except for relationship conflict, with moderate agreement (see table 2). Biemann et al. (2012) propose that it is sufficient with moderate agreement when studying general trends across many teams.

ICC is an estimate of interrater reliability and is often interpreted “as the proportion of observed variance in ratings that is due to systematic between-target differences compared to

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

the total variance in ratings” (LeBreton & Senter, 2008, p. 822). Shrout and Fleiss (1979) have proposed six different estimates of ICC that depend on the experimental study. In this master thesis we will present ICC(2). ICC(2) provides an “indication of which proportion of the scores that can be attributed to between-team variance” (Bliese, 2000; LeBreton & Senter, 2008, reported in Midthaug, 2017, p. 19). As Shrout and Fleiss (1979) suggest, low ICC(2) might not only reflect the low degree of rater agreement but can also relate to the lack of variability among the sampled subjects and the small number of raters being tested. Therefore, researchers should try to obtain at least 30 heterogeneous samples and involve at least three raters, if this is possible, when conducting a reliability study (Koo & Li, 2016). Hence, Shrout and Fleiss (1979) propose that ICC(2) values between .50 and .75 indicate moderate reliability, values between .75 and .90 indicate good reliability and values greater than .90 indicate excellent reliability. Nevertheless, researchers will probably want to choose ICC(2) values between .70 and .85 to justify aggregation (Koo & Li, 2016). ICC(2) values of the variables in this study vary from .69 to .82 (see table 2).

Table 2

Chronbach's alpha, R_{WG} and ICC(2) for the aggregated scores

	Alpha	R _{WG}	ICC(2)
RC	.91	.59	.82
PS	.89	.73	.69
TP	.92	.78	.69
IWG	.86	.75	.70

Note: RC = relationship conflict, PS = psychological safety, TP = task performance, IWG = individual well-being and growth.

Data analysis

Descriptive statistics were reported (see table 3), and linear regression analyses were conducted to test *H1*, *H2* and *H3* using SPSS (27 ed.). PROCESS by Hayes (2017) was used to test *H4*, to examine the mediating effect of psychological safety on relationship conflict and management team performance.

PROCESS by Hayes (2017) is a regression path analysis modelling tool in SPSS (27 ed.) (Hayes, 2017). When using PROCESS by Hayes (2017), you get both model coefficients and bootstrap confidence intervals for inference about significant indirect effects. The bootstrap confidence interval is constructed by “randomly resampling *n* cases from the data with replacement, where *n* is the original sample size in the study and estimating the model

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

and resulting indirect effect ab in this bootstrap sample” (Hayes & Rockwood, 2017, p. 6). In our analysis, we ran 5000 bootstraps. A 95 % bootstrap confidence interval presents a lower (LLCI) and upper (ULCI) limit, where the sample contains the true value somewhere between LLCI and ULCI with 95 % certainty (Field, 2013, p.199). If the confidence interval does not contain zero, the indirect effect is statistically significant (Hayes & Rockwood, 2017).

Bootstrapping is one of the more valid and powerful methods for testing intervening variable effects (MacKinnon et al., 2004; Williams & MacKinnon, 2008; Hayes, 2009), and Hayes (2009) argues that a significant indirect effect alone is sufficient to claim mediation. Meaning, if the effect of X is mediated by M, which in turn effects the change in Y, this is equal to path a multiplied by path b (ab) and this directly quantifies the change in Y, by X through M. All that matter is therefore whether the indirect effect of ab is significantly different from zero. Although it is not required to test whether path a and path b are different from zero to claim mediation, one should look at the information that a and b provide when interpreting the results (Hayes & Rockwood, 2017). Based on this, regression analyses are performed on each path to gain full understanding of the results.

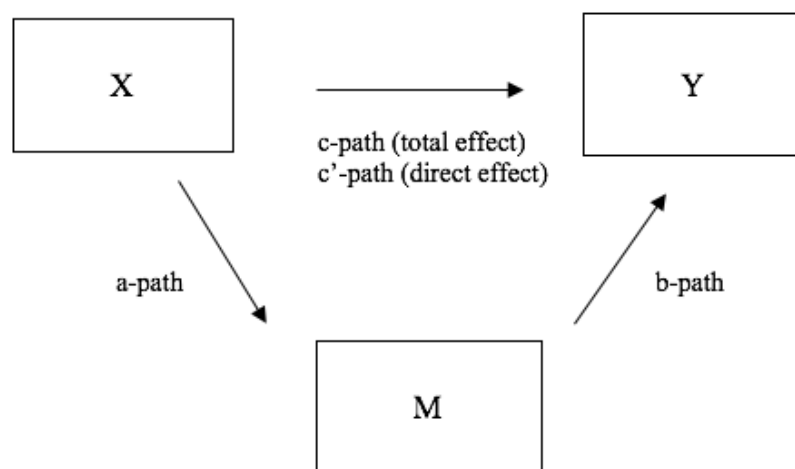


Figure 1: Illustration of a simple mediation model

Control variable

Team size. Previous research has found that the productivity of a work group seems to decrease as the number of team members increases (Steiner, 1972; Forsyth, 2014). Steiner (1972) called this process loss, meaning that the different processes that the team produces as the size increases, inhibit the productivity of the team. One source of process loss can be social loafing, which refers to “the reduction of individual effort exerted when people work in

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

groups compared to when they work alone” (Forsyth, 2014, p. 135). Midthaug (2017) found in her study of 216 Norwegian management teams that psychological safety mediated the relationship between team size and team performance. The study found a significant negative association between team size and both team performance and the level of psychological safety. The team size was directly linked to team performance, and larger teams tended to show lower levels of psychological safety which again affected management team performance. Based on these results, team size could affect both the mediator psychological safety, and the outcome variables, task performance and individual well-being and growth.

As reported in table 3, we found that team size does not significantly correlate with any of our variables. According to Schmitt et al. (1991), control-variables are variables that researchers should include in their research to rule out alternative explanations for their finding. If the controlling variable is uncorrelated with the predictor and outcome variables, there is no need to include it in any further analyses if there is no specific reason for it (Becker, 2005). Based on this assumption, we choose not to control for team size in the further analyses.

Results

Main analysis

Means, standard deviations and standardized coefficients for all variables are presented in Table 3.

Table 3

Means, standard deviations and bivariate correlations

Variable	Mean	SD	1	2	3	4	5
1. TS	7.19	2.70	-				
2. RC	5.29	1.10	.09	-			
3. PS	5.53	.62	-.12	-.69**	-		
4. TP	4.73	.82	-.03	-.35**	.55**	-	
5. IWG	5.23	.63	-.12	-.47**	.73**	.80**	-

Note: TS = team size, RC = relationship conflict, PS = psychological safety, TP = task performance, IWG = individual well-being and growth

* $p \leq .01$ ** $p \leq .001$

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

Regression analysis. We conducted a linear regression analyses in SPSS (27 ed.) to test *H1*, *H2* and *H3*.

H1: To what extent is relationship conflict associated with task performance and individual well-being and growth? The results in Table 3 show a negative correlation between relationship conflict and task performance ($r = -.35, p \leq .001$) and individual well-being and growth ($r = -.47, p \leq .001$). Therefore, both hypotheses 1a and 1b are supported.

H2: To what extent is relationship conflict associated with psychological safety? The result in Table 3 shows a negative correlation between relationship conflict and psychological safety ($r = -.69, p \leq 0.001$). This result supports hypothesis 2.

H3: To what extent is psychological safety associated with task performance and individual well-being and growth? The results show a positive correlation between psychological safety and task performance ($r = .55, p \leq .001$) and individual well-being and growth ($r = .73, p \leq .001$). These results support hypothesis 3a and b.

Mediation analysis. PROCESS by Hayes (2017) was used in order to investigate whether psychological safety mediates the association between relationship conflict and management team performance.

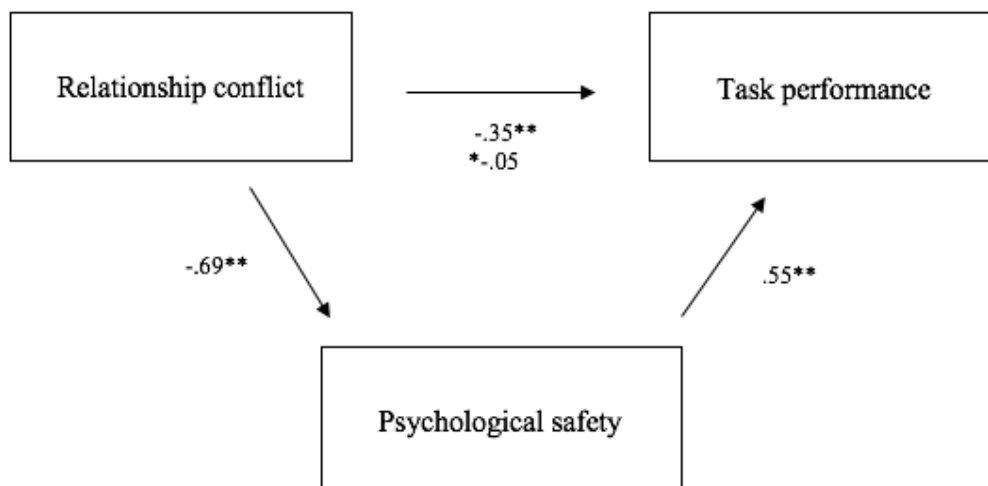


Figure 2: The association between relationship conflict, psychological safety and task performance

Note: * mediated effect of psychological safety on relationship conflict and task performance.

** $p \leq .001$

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

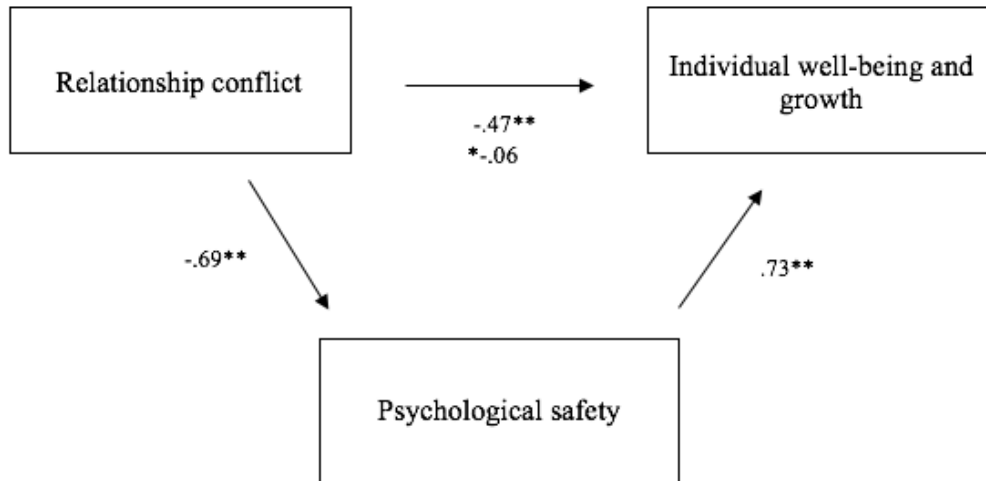


Figure 3: The association between relationship conflict, psychological safety and individual well-being and growth

Note: * mediated effect of psychological safety on relationship conflict and individual well-being and growth ** $p \leq .001$

H4: To what extent is there an indirect effect of relationship conflict on management team performance, mediated by psychological safety? In a model with psychological safety as a mediator, we found a weak and non-significant direct effect of relationship conflict on task performance ($r = -.05$, *ns*) and on individual well-being and growth ($r = -.06$, *ns*). We found an indirect effect of psychological safety on task performance ($\beta = .40$, 95% CIs [.2806, .5275]). We also found an indirect effect of psychological safety on individual well-being and growth ($\beta = .53$, 95% CIs [.4321, .6422]). LLCI and ULCI represent the lower and upper limits of a 95 % confidence interval, which means that with 95 % certainty our sample contains the true value somewhere between the lower and upper limit (Field, 2013, p. 199). The 95 % confidence intervals presented above do not include zero. Therefore, the results support our hypothesis and show that the indirect effect of psychological safety on task performance and individual well-being and growth is statistically significant. As a result, the hypotheses 4a and 4b are supported.

The results from PROCESS by Hayes (2017) are presented in Table 4 and indicate that increasing levels of relationship conflict reduce the levels of psychological safety. As a result, team performance decreases.

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

Table 4

Standardized beta-coefficients in the different paths of the mediation model.

Paths	Psychological safety	
	TP	IWG
1. a-path	-.69**	-.69**
2. b- path	.55**	.73**
3. c-path (total effect)	-.35**	-.47**
4. c'-path (direct effect)	-.05	-.06
5. a x b-path (indirect effect)	.40	.53

Note: TP = Task performance, IWG = Individual well-being and growth.

* $p \leq .01$ ** $p \leq .001$

Discussion

The main aim of this study was to examine whether psychological safety mediates the association between relationship conflict and management team performance (task performance and individual well-being and growth). We found support for a negative association between relationship conflict and management team performance, and this association was mediated by psychological safety. There is a strong indirect effect of relationship conflict on management team performance – both when it comes to task performance and individual well-being and growth. The direct effect of relationship conflict on management team performance disappears when controlling for psychological safety.

Past research has also found a negative association between relationship conflict and team performance (De Dreu & Weingart, 2003; de Wit et al., 2012). Our findings show a significant moderate to strong negative association between relationship conflict and task performance, and individual well-being and growth. These results replicate past research. There is no research, to our knowledge, on the direct association between relationship conflict and psychological safety. Some researchers argue that relationship conflict enhances stress and anxiety among the team members (Jehn, 1995), and that these consequences may create an environment where the team members are afraid to speak up and express their authentic selves (Carmeli et al., 2009). Our results indicate that there is a strong negative association between relationship conflict and psychological safety, meaning that increasing levels of relationship conflict reduce the level of psychological safety within management teams. Also, past research has found that psychological safety affects team performance, both directly and indirectly (e.g., Edmondson, 1999; Huang et al., 2008; Schaubroeck et al., 2011; Nembhard &

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

Edmondson, 2012; Bilstad, 2016). Our data show a strong association between psychological safety and management team performance and thus support and replicate the findings from previous studies. In addition to replicating the findings from previous research, our study expands the knowledge of how psychological safety affects the association between relationship conflict and performance in a special type of team, namely management teams.

When controlling for psychological safety, the direct effect between relationship conflict and management team performance becomes weak and non-significant (task performance, $\beta = -.05$, and individual well-being and growth, $\beta = -.06$). Our findings support our hypotheses that psychological safety acts as a mediator in the association. Increasing levels of relationship conflict is associated with decreasing levels of psychological safety, which in turn negatively affect management team performance. When there are increasing levels of relationship conflict within a team, team members may be afraid of speaking up and expressing their own opinions in fear of being criticized by their colleagues. This fear changes the team members' perceived safety, and therefore their behavior changes. In other words, one possible explanation why relationship conflict is detrimental to team performance can be that it reduces the level of psychological safety within the team.

Theoretical implications

Our research seeks to contribute to the literature in several ways. First, to our knowledge, this is the first study to examine psychological safety as a mediator in the association between relationship conflict and team performance. Previous research has found the conceptual sibling, trust, to mediate the same association (Curşeu & Schruijer, 2010; Lau & Cobb, 2010). Our study lends support to the results of these studies, but also expands the findings to be relevant in management teams for psychological safety as well. In this way, our mediation model integrates previous research and adds to existing theory. We suggest additional research to examine whether there could be other mediators of importance in the association between relationship conflict and team performance. This would provide useful insight into how to reduce and prevent the detrimental effects relationship conflict has on team performance.

Second, previous meta-analyses have found a significant but only moderate correlation between relationship conflict and task performance ($r = -.16$, De Dreu & Weingart, 2003) and ($r = -.22$, de Wit et al., 2012). Our data show a stronger correlation for the same association (r

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

= -.35). De Dreu and Weingart (2003) and de Wit et al. (2012) also found a negative correlation between relationship conflict and team member satisfaction ($r = -.54$). Our results show a rather similar negative correlation between relationship conflict and individual well-being and growth ($r = -.47$). Could a possible explanation for the different results on the association between relationship conflict and task performance be due to the type of teams studied, and that relationship conflict is more detrimental to task performance in management teams compared to other organizational teams? Future studies should explore this possibility. Still, we should be cautious comparing our results with the meta-analyses due to a different type of teams studied. Therefore, more research on management teams is needed, including what distinguishes it from other types of teams.

Third, theories that try to explain why relationship conflict is detrimental to team performance have focused on causes such as the increasing level of stress and anxiety and that it creates hostility between team members. Our study expands this theoretical framework and finds psychological safety as a possible additional theoretical explanation as to why relationship conflict is detrimental to management team performance. Future research should be aware of the importance psychological safety plays in this association and consider including it in their line of variables.

Lastly, a lot of research on psychological safety has been done on teams in health care units (e.g., Nembhard & Edmondson, 2006; Kessel et al., 2012; O'Donovan, 2020) and on work teams (e.g., Edmondson, 1999; Huang et al., 2008; Edmondson, 2019), but little on management teams. Our study replicates and expands the findings from previous studies by solely examining management teams. Effective management teams are crucial for an organization to succeed and help the team members to learn and grow to better perform the task at hand (Hackman, 2002; Wageman et al., 2008). Since there is little research on management teams, both when it comes to relationship conflict and psychological safety, more research on management teams is necessary.

Practical implications

Relationship conflict resolutions. How can the findings of this study be implemented in practice? It is difficult to prevent relationship conflicts in teamwork in today's working life (Janssen, 1999). Therefore, managers need to handle and resolve relationship conflicts as we know how harmful it is to the psychological safety within the team. Previous research has

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

studied which conflict resolution strategies that have proven to be the best for resolving relationship conflicts in teams (Edmondson & Smith, 2006; Behfar et al., 2008; O'Neill et al., 2013). Greer et al. (2008) found in their study that it is important to resolve conflicts in the start-up of the teams to prevent conflicts later. The researchers suggest that managers should promote effective conflict-management skills that can help to increase conflict resolution. In this way, teams are more resilient to dealing with conflicts, as well as knowing what to do if they arise.

Edmondson and Smith (2006) state that although relationship conflict usually is handled poorly, it is possible to learn how to handle it well. The authors suggest that management teams can learn a set of three practices to handle conflicts productively. They are 1) manage self, 2) manage conversations and 3) manage relationships. Manage self refers to the ability to examine and transform the thoughts and feelings that arise during a conflict by remaining calm. When one becomes aware of one's reaction during a conflict it is possible to reframe the situation and thereby become less emotionally triggered (Edmondson & Smith, 2006). According to Edmondson and Smith (2006), reflecting and reframing can be difficult during an intense relationship conflict. When this happens, the rest of the team, which is not directly involved in the relationship conflict, can help and contribute to increased reflection and understanding of the thoughts and feelings of those involved in the conflict. Manage conversations is a second practice Edmondson and Smith (2006) suggest. When team members reflect on their reactions, topics that are emotional and divisive can be used to make better decisions and strengthen the relationships in the team instead of doing the opposite. By exploring the beliefs of all team members, by acknowledging emotional reactions with an open mind, and identifying material conflicts as well as relationship conflicts, the team will be able to keep the conflict at a lower level (Edmondson & Smith, 2006). Edmondson and Smith (2006) suggest managing relationships as a third practice for management teams. This refers to building relationships in the management team by taking their time to get to know each other as people and to understand each other's goals and motives. In this way, the relationships become stronger and more robust, which in turn enhance mutual trust.

Challenges related to resolving relationship conflicts. Many teams find it hard to implement good practices related to relationship conflict resolution. Edmondson and Smith (2006) suggest three reasons to why this is the case. First, many organizations find it hard to find time to acknowledge the emotions of the team members. The reason may be that management teams have a lot of tasks to solve, and do not have much time for anything else

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

but the tasks. Second, the practices described above are not the norm in executive management teams. Lastly, these practices will only take place if the teams are characterized by a low level of psychological safety (Edmondson & Smith, 2006).

Implementing psychological safety. As our results imply, high levels of relationship conflict reduce the level of psychological safety within management teams. How can a psychologically safe work climate be implemented? Edmondson (2019, p. 158) states that leaders must set the stage for a psychologically safe environment by framing the work at hand. The leader must educate and inform the team members that the system in which they work is error prone, and that system complexity is the reason for errors, not incompetence. This may help people to feel safe to speak up about problems and mistakes (Edmondson et al., 2007). Leaders must understand and communicate that failure is a source of valuable data, and that learning from these failures can only happen when the environment in which the team members work, is perceived as psychologically safe (Edmondson, 2019, p. 160).

An important tool for leaders to use in order to establish a psychologically safe environment, is to express situational humility (Edmondson, 2019, p.168). Situational humility is to humbly express that you do not have all the answers, and that you are fallible. This behavior could invite participation and make it easy for the team members to speak up or express their opinions. In addition to expressing situational humility, leaders must respond productively (Edmondson, 2019, p. 157), meaning that the leader must respond appreciatively and respectfully if a member of the team is voicing a concern or admitting an error, and openly discuss the path forward. The aim is not to fight about who is right but to shed light on the task from different perspectives to learn from mistakes.

Challenges to implementing psychological safety. Several challenges may stand in the way of establishing a psychologically safe work environment. Firstly, the hierarchy in a team could affect the perceived safety of the members to express concerns or voicing new ideas. Members of lower-status teams are reported to feel less safe than higher-status team members, and this positioning shapes their perceptions of how safe it is to take interpersonal risks (Nembhard & Edmondson, 2006). Team members are also likely to feel safer in teams with members that they have a more long-term and stable relationship with, in contrast to many teams which are temporary, and project based. Teamwork over time could influence how a member of the team will react to new ideas or to constructive criticism, and in this way

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

affect the level of psychological safety experienced within the team (Edmondson & Mogelof, 2006).

Limitations

There are several limitations to this study. First, we describe the association between relationship conflict, psychological safety, and management team performance as a causal relationship. Since we have conducted a cross-sectional study and the association between the variables are measured as correlations, we must be cautious to claim causality in the association between relationship conflict, psychological safety, and management team performance. Even though our data show strong correlations between the variables, we cannot say whether a high level of relationship conflict leads to reduced psychological safety, or whether a low level of psychological safety leads to a high level of relationship conflict. To assess causality future research should examine the relationships using other research methods, such as longitudinal or experimental studies.

A second limitation is that the construct of relationship conflict has a moderate agreement among the team members, with a r_{WG} level of 0.59. The explanation for this could be the nature of the construct. de Wit et al. (2013) found in their research that individuals differ in their perceptions of the same conflict. Some individuals may perceive that there is a high level of relationship conflict within the team, while others do not. When aggregating the data, this is not taken into account, and this may be an explanation for a moderate r_{WG} level. To avoid limitations related to data aggregation, a suggestion for future research is to measure relationship conflict with other measures (e.g., observational measures or scales with higher r_{WG}).

Third, the variables in our study are based on data from self-reported questionnaires and this causes some limitations. Social desirability bias is often to be found in self-reported questionnaires (Podsakoff et al., 2003). Social desirability bias was proposed by Edwards (1953) and refers to “the tendency on behalf of the subjects to deny socially undesirable traits and to claim socially desirable ones” (Nederhof, 1985, p. 264). According to Espedalen (2016), team members are more likely to attenuate scores on relationship conflict and accentuate scores on constructs that are desirable, as psychological safety and team performance are. This may be the case as psychological safety and team performance are perceived as socially desirable, but relationship conflict is not. Social desirability bias can

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

especially occur if the respondents and the team receive a feedback report on their responses, which most of the teams in this study did.

A fourth limitation of our study is that it is based on Norwegian management teams, and this means that the results cannot necessarily be generalized to other cultures. de Wit et al. (2012) argue that there may be cultural differences in the way team members react to a relationship conflict and therefore the way in which relationship conflict affects team performance. These cultural differences could be due to cultural dimensions such as power distance, uncertainty avoidance, individualism vs collectivism, and masculinity vs femininity (Hofstede, 2001; de Wit et al., 2012). Additionally, Edmondson and Lei (2014) point out that in some cultures it could be difficult to ask questions, provide feedback, or having a discussion with team members because this can be interpreted as rude and inappropriate behavior. Such cultural differences show the importance of studying the association in different cultures. In this way more knowledge will be gained about the consequences of high levels of relationship conflict and how these levels reduce the psychological safety within management teams across different cultures. As our thesis is based on data from Norwegian management teams, we suggest future research to study the association between relationship conflict, psychological safety, and management team performance in different cultures.

Conclusion

The aim of this study was to investigate whether psychological safety mediates the association between relationship conflict and management team performance. Our data support our hypotheses and show that psychological safety plays a central part in the effect relationship conflict has on management team performance. To our knowledge, no other study has been conducted on this specific relationship. Therefore, our results provide important knowledge to the field of relationship conflict, psychological safety and management team performance. Increasing levels of relationship conflict seem to decrease the level of psychological safety in the team, making it less safe for the team members to speak up, ask questions, voice their concerns, and admit mistakes, which again will impede management team performance. The take-home message from our study is that leaders must have an active focus on managing and resolving relationship conflicts as we know how harmful it is to the psychological safety within management teams. In this way, psychological safety is maintained, and this will improve management team performance.

References

- Baer, M., & Frese, M. (2003). Innovation is not enough: Climates for initiative and psychological safety, process innovations, and firm performance. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 24(1), 45-68. doi.org/10.1002/job.179
- Bang, H., & Midelfart, T. N. (2017). What characterizes effective management teams? A research-based approach. *Consulting Psychology Journal: Practice and Research*, 69(4), 334-359. doi.org/10.1037/cpb0000098
- Bang, H., & Midelfart, T. N. (2019). *Effektive ledergrupper* (2 ed.). Gyldendal.
- Becker, T. E. (2005). Potential problems in the statistical control of variables in organizational research: A qualitative analysis with recommendations. *Organizational Research Methods*, 8(3), 274-289. doi.org/10.1177/1094428105278021
- Behfar, K. J., Peterson, R. S., Mannix, E. A., & Trochim, W. M. (2008). The critical role of conflict resolution in teams: A close look at the links between conflict type, conflict management strategies, and team outcomes. *Journal of Applied Psychology*, 93(1), 170. doi.org/10.1037/0021-9010.93.1.170
- Biemann, T., Cole, M. S., & Voelpel, S. (2012). Within-group agreement: On the use (and misuse) of rWG and rWG (J) r_{WG} and $r_{WG(J)}$ in leadership research and some best practice guidelines. *The Leadership Quarterly*, 23(1), 66-80. doi.org/10.1016/j.leaqua.2011.11.006
- Bilstad, J. B. (2016). *The Relationship between team psychological safety and team effectiveness in management teams: The mediating effect of dialogue* [Master thesis, University of Oslo]. <http://urn.nb.no/URN:NBN:no-54377>
- Bliese, P. D. (2000). *Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis*. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions* (p. 349–381). Jossey-Bass.
- Camelo-Ordaz, C., Garcia-Cruz, J. and Sousa-Ginel, E. (2014). Antecedents of relationship conflict in top management teams. *International Journal of Conflict Management*, 25(2), 124-147. doi.org/10.1108/IJCMA-06-2012-0054
- Carmeli, A. (2007). Social capital, psychological safety and learning behaviours from failure in organisations. *Long Range Planning*, 40(1), 30-44.

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND
MANAGEMENT TEAM PERFORMANCE

doi.org/10.1016/j.lrp.2006.12.002

- 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: The Official Journal of the International Federation for Systems Research*, 26(1), 81-98. doi.org/10.1002/sres.932
- Carmeli, A., & Gittell, J. H. (2009). High-quality relationships, psychological safety, and learning from failures in work organizations. *Journal of Organizational Behaviour: The International Journal of Industrial, Occupational and Organizational Psychology and Behaviour*, 30(6), 709-729. doi.org/10.1002/job.565
- Carnevale, P. J., & Probst, T. M. (1998). Social values and social conflict in creative problem solving and categorization. *Journal of Personality and Social Psychology*, 74(5), 1300–1309. doi.org/10.1037/0022-3514.74.5.1300
- Curşeu, P. L., & Schreijer, S. G. (2010). Does conflict shatter trust or does trust obliterate conflict? Revisiting the relationships between team diversity, conflict, and trust. *Group Dynamics: Theory, Research, and Practice*, 14(1), 66. doi.org/10.1037/a0017104
- De Dreu, C. K., & Weingart, L. R. (2003). Task versus relationship conflict, team performance, and team member satisfaction: A meta-analysis. *Journal of Applied Psychology*, 88(4), 741-749. doi.org/10.1037/0021-9010.88.4.741
- De Dreu, C. K., Nijstad, B. A., & Van Knippenberg, D. (2008). Motivated information processing in group judgment and decision making. *Personality and Social Psychology Review*, 12(1), 22-49. doi.org/10.1177/1088868307304092
- Detert, J. R., & Burris, E. R. (2007). Leadership behaviour and employee voice: Is the door really open? *Academy of Management Journal*, 50(4), 869-884. doi.org/10.5465/amj.2007.26279183
- de Wit, F. R., Greer, L. L., & Jehn, K. A. (2012). The paradox of intragroup conflict: a meta-analysis. *Journal of Applied Psychology*, 97(2), 360-390. doi.org/10.1037/a0024844
- de Wit, F. R., Jehn, K. A., & Scheepers, D. (2013). Task conflict, information processing, and decision-making: The damaging effect of relationship conflict. *Organizational Behavior and Human Decision Processes*, 122(2), 177-189. doi.org/10.1016/j.obhdp.2013.07.002

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND
MANAGEMENT TEAM PERFORMANCE

- Dijkstra, M. T., van Dierendonck, D., & Evers, A. (2005). Responding to conflict at work and individual well-being: The mediating role of flight behaviour and feelings of helplessness. *European Journal of Work and Organizational Psychology, 14*(2), 119-135. doi.org/10.1080/13594320444000254
- Drath, W. H., McCauley, C. D., Palus, C. J., Van Velsor, E., O'Connor, P. M., & McGuire, J. B. (2008). Direction, alignment, commitment: Toward a more integrative ontology of leadership. *The Leadership Quarterly, 19*(6), 635-653. doi.org/10.1016/j.leaqua.2008.09.003
- Dutton, J.E. and Heaphy, E.D. (2003). The Power of High-Quality Connections. In K. Cameron, and J. Dutton (Eds.), *Positive Organizational Scholarship: Foundations of a New Discipline* (p. 262-278). Berrett-Koehler Publishers.
- Edmondson, A. (1999). Psychological safety and learning behaviour in work teams. *Administrative Science Quarterly, 44*(2), 350-383. doi.org/10.2307/2666999
- Edmondson, A. C. (2003). Speaking up in the operating room: How team leaders promote learning in interdisciplinary action teams. *Journal of Management Studies, 40*(6), 1419-1452. doi.org/10.1111/1467-6486.00386
- Edmondson, A. C. (2004). Psychological safety, trust, and learning in organizations: A group-level lens. In R. M. Kramer & K. S. Cook (Eds.), *The Russell Sage Foundation series on trust. Trust and distrust in organizations: Dilemmas and approaches*, (p. 239-272). Russell Sage Foundation.
- Edmondson, A. C., & Mogelof, J. P. (2006). Explaining psychological safety in innovation teams: Organizational culture, team dynamics, or personality. In L. Thompson and H. S. Choi (Eds.), *Creativity and Innovation in Organizational Teams* (p.109- 136). Lawrence Erlbaum Associates.
- Edmondson, A. C., & Smith, D. M. (2006). Too hot to handle? How to manage relationship conflict. *California Management Review, 49*(1), 6-31. doi.org/10.2307/41166369
- Edmondson, A.C., Nembhard, I. M., & Roloff, K. S. (2007). *Children's hospital and clinics (B)*. [Case study]. Harvard Business School
- Edmondson, A. C., & Lei, Z. (2014). Psychological safety: The history, renaissance, and future of an interpersonal construct. *Annual Review of Organizational Psychology and*

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND
MANAGEMENT TEAM PERFORMANCE

Organizational Behaviour, 1(1), 23-43. doi.org/10.1146/annurev-orgpsych-031413-091305

Edmondson, A. C. (2019). *The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth*. John Wiley & Sons.

Edwards, A. L. (1953). The relationship between the judged desirability of a trait and the probability that the trait will be endorsed. *Journal of Applied Psychology*, 37(2), 90–93. doi.org/10.1037/h0058073

Espedalen, L. E. (2016). *The Effect of Team Size on Management Team Performance: The Mediating Role of Relationship Conflict and Team Cohesion* (Master's thesis). <http://urn.nb.no/URN:NBN:no-54262>

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. (4th. Ed.). Sage Publications.

Forsyth, D. R. (2014). *Group dynamics*. (6th. Ed.). Wadsworth Cengage learning.

Garvin, D. A., Edmondson, A. C., & Gino, F. (2008). Is yours a learning organization? *Harvard Business Review*, 86(3), 109.

Greer, L. L., Jehn, K. A., & Mannix, E. A. (2008). Conflict transformation: A longitudinal investigation of the relationships between different types of intragroup conflict and the moderating role of conflict resolution. *Small Group Research*, 39(3), 278-302. doi.org/10.1177/1046496408317793

Hackman, J. R. (1990). *Groups that work (and those that don't)*. Jossey-Bass.

Hackman, J. R. (2002). *Leading teams: Setting the stage for great performances*. Harvard Business School Press.

Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76(4), 408-420. doi.org/10.1080/03637750903310360

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.

Hayes, A. F., & Rockwood, N. J. (2017). Regression-based statistical mediation and moderation analysis in clinical research: Observations, recommendations, and

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

- implementation. *Behaviour Research and Therapy*, 98, 39- 57.
doi.org/10.1016/j.brat.2016.11.001
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage publications.
- Huang, C. C., Chu, C. Y., & Jiang, P. C. (2008). An empirical study of psychological safety and performance in technology R&D teams. In *2008 4th IEEE International Conference on Management of Innovation and Technology* (pp. 1423-1427). IEEE.
doi.org/10.1109/ICMIT.2008.4654580
- Janssen, O., Van De Vliert, E., & Veenstra, C. (1999). How task and person conflict shape the role of positive interdependence in management teams. *Journal of Management*, 25(2), 117-141. doi.org/10.1016/S0149-2063(99)80006-3
- Jehn, K. A. (1995). A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly*, 40(2), 256-282. doi.org/10.2307/2393638
- Jehn, K. A., & Bendersky, C. (2003). Intragroup conflict in organizations: A contingency perspective on the conflict-outcome relationship. *Research in Organizational Behavior*, 25, 187-242. doi.org/10.1016/s0191-3085(03)25005-x
- Jehn, K. A., Greer, L., Levine, S., & Szulanski, G. (2008). The effects of conflict types, dimensions, and emergent states on group outcomes. *Group Decision and Negotiation*, 17(6), 465-495. doi.org/10.1007/s10726-008-9107-0
- Johnson, H. H., & Avolio, B. J. (2019). Team psychological safety and conflict trajectories' effect on individual's team identification and satisfaction. *Group & Organization Management*, 44(5), 843-873. doi.org/10.1177/1059601118767316
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692-724. doi.org/10.5465/256287
- Kessel, M., Kratzer, J., & Schultz, C. (2012). Psychological safety, knowledge sharing, and creative performance in healthcare teams. *Creativity and Innovation Management*, 21(2), 147-157. doi.org/10.1111/j.1467-8691.2012.00635.x
- Kline, P. (1999). *The handbook of psychological testing* (2. Ed). Routledge.

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND
MANAGEMENT TEAM PERFORMANCE

- Koo, T. K., & Li, M. Y. (2016). A guideline of selecting and reporting intraclass correlation coefficients for reliability research. *Journal of Chiropractic Medicine, 15*(2), 155-163. doi.org/10.1016/j.jcm.2016.02.012.
- Langfred, C. (2007). The downside of self-management: A longitudinal study of the effects of conflict on trust, autonomy, and task interdependence in self-managing teams. *Academy of Management Journal, 50*(4), 885-900. doi.org/10.5465/AMJ.2007.26279196
- Lau, R. S., & Cobb, A. T. (2010). Understanding the connections between relationship conflict and performance: The intervening roles of trust and exchange. *Journal of Organizational Behavior, 31*(6), 898-917. doi.org/10.1002/job.674
- LeBreton, J. M., Burgess, J. R., Kaiser, R. B., Atchley, E. K., & James, L. R. (2003). The restriction of variance hypothesis and interrater reliability and agreement: Are ratings from multiple sources really dissimilar?. *Organizational Research Methods, 6*(1), 80-128. doi.org/10.1177/1094428102239427
- LeBreton, J., & Senter, J. (2008). Answers to 20 Questions About Interrater Reliability and Interrater Agreement. *Organizational Research Methods, 11*, 815-852. doi.org/10.1177/1094428106296642
- MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate Behavioral Research, 39*(1), 99-128. doi.org/10.1207/s15327906mbr3901_4
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review, 20*(3), 709-734. doi.org/10.5465/amr.1995.9508080335
- Midthaug, M. B. (2017). *The relationship between management team size and team performance: The mediating effect of team psychological safety* [Master thesis]. <http://urn.nb.no/URN:NBN:no-59984>
- Nadler, D. A. (1998). Executive team effectiveness: Teamwork at the top. In D. A. Nadler, J. L. Spencer & Associates (Eds.), *Executive teams* (p. 21-39). Jossey-Bass.
- Nederhof, A. J. (1985). Methods of coping with social desirability bias: A review. *European Journal of Social Psychology, 15*(3), 263-280. doi.org/10.1002/ejsp.2420150303

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND MANAGEMENT TEAM PERFORMANCE

- Nembhard, I. M., & Edmondson, A. C. (2006). Making it safe: The effects of leader inclusiveness and professional status on psychological safety and improvement efforts in health care teams. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 27(7), 941-966. doi.org/10.1002/job.413
- Nembhard, I. M., & Edmondson, A. C. (2012). Psychological safety: A foundation for speaking up, collaboration, and experimentation in organizations. In M. Gretchen, and S. C. Cameron (Eds.), *The Oxford handbook of positive organizational scholarship*. Oxford University Press.
- Nunnally, J. C. (1978). *Psychometric theory*. McGraw-Hill.
- O'Donovan, R., & Mcauliffe, E. (2020). A systematic review of factors that enable psychological safety in healthcare teams. *International Journal for Quality in Health Care*, 32(4), 240-250. doi.org/10.1093/intqhc/mzaa025
- O'Neill, T. A., Allen, N. J., & Hastings, S. E. (2013). Examining the “pros” and “cons” of team conflict: A team-level meta-analysis of task, relationship, and process conflict. *Human Performance*, 26(3), 236-260. doi.org/10.1080/08959285.2013.795573
- O'Neill, T. A., & McLarnon, M. J. (2018). Optimizing team conflict dynamics for high performance teamwork. *Human Resource Management Review*, 28(4), 378-394. doi.org/10.1016/j.hrmr.2017.06.002
- Pelled, L. H. (1996). Demographic Diversity, Conflict, and Work Group Outcomes: An Intervening Process Theory. *Organization Science*, 7(6), 615-631. doi.org/10.1287/orsc.7.6.615
- Peterson, R. A. (1994). A Meta-Analysis of Cronbach's Coefficient Alpha, *Journal of Consumer Research*, 21(2), 381- 391. doi.org/10.1086/209405
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879. doi.org/10.1037/0021-9010.88.5.879
- Rispens, S., Greer, L., Jehn, K. A., & Thatcher, S. M. (2011). Not so bad after all: How relational closeness buffers the association between relationship conflict and helpful

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND
MANAGEMENT TEAM PERFORMANCE

- and deviant group behaviors. *Negotiation and Conflict Management Research*, 4(4), 277-296. doi.org/10.1111/j.1750-4716.2011.00083.x
- Schaubroeck, J., Lam, S. S., & Peng, A. C. (2011). Cognition-based and affect-based trust as mediators of leader behavior influences on team performance. *Journal of Applied Psychology*, 96(4), 863. doi.org/10.1037/a0022625
- Schmitt, N., Klimoski, R. J., & Rowland, K. M. (1991). *Research methods in human resources management*. South-Western Pub.
- Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations, uses in assessing rater reliability. *Psychological bulletin*, 86(2), 420. doi.org/10.1037/0033-2909.86.2.420
- Simons, T. L., & Peterson, R. S. (2000). Task conflict and relationship conflict in top management teams: The pivotal role of intragroup trust. *Journal of Applied Psychology*, 85(1), 102-111. doi.org/10.1037/0021-9010.85.1.102
- Staw, B. M., Sandelands, L. E., & Dutton, J. E. (1981). Threat rigidity effects in organizational behavior: A multilevel analysis. *Administrative Science Quarterly*, 26(4), 501-524. doi.org/10.2307/2392337
- Steiner, I. D. (1972). *Group process and productivity*. Academic Press.
- Tucker, A. L., Nembhard, I. M., & Edmondson, A. C. (2007). Implementing new practices: An empirical study of organizational learning in hospital intensive care units. *Management Science*, 53(6), 894-907. doi.org/10.1287/mnsc.1060.0692
- van Woerkom, M., & van Engen, M. L. (2009). Learning from conflicts? The relations between task and relationship conflicts, team learning and team performance. *European Journal of Work and Organizational Psychology*, 18(4), 381-404. doi.org/10.1080/13594320802569514
- Wageman, R., Nunes, D. A., Burruss, J. A., & Hackman, J. R. (2008). *Senior leadership teams: What it takes to make them great*. Harvard Business Review Press.
- Wageman, R., & Hackman, J. R. (2010). What makes teams of leaders leadable? In N. Nohria & R. Khurana (Eds.), *Handbook of leadership theory and practice* (p. 1-31). Harvard Business School Press.

RELATIONSHIP CONFLICT, PSYCHOLOGICAL SAFETY AND
MANAGEMENT TEAM PERFORMANCE

Walumbwa, F. O., & Schaubroeck, J. (2009). Leader personality traits and employee voice behavior: mediating roles of ethical leadership and work group psychological safety. *Journal of Applied Psychology, 94*(5), 1275. doi.org/10.1037/a0015848

Williams, J., & MacKinnon, D. P. (2008). Resampling and distribution of the product methods for testing indirect effects in complex models. *Structural Equation Modeling: a Multidisciplinary Journal, 15*(1), 23-51. doi.org/10.1080/10705510701758166