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Dual commitment in the organization: Effects of the interplay of team and organizational commitment on employee citizenship behavior, efficacy beliefs, and turnover intentions

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ABSTRACT

Affective team and organizational commitment are among the most important employee attachments in the workplace. While past research has focused on identifying the differential relationships of these commitments with relevant workplace outcomes, the present study examines their additive and interactive effects based on a multi-foci research framework. Drawing on consistency and optimal distinctiveness theory, we predicted that team and organizational commitment add to and enhance each other's target-specific effects on team- and organization-directed citizenship behavior, efficacy beliefs, and turnover intentions. Furthermore, taking a person-centered perspective, we tested the hypothesis that dually committed employees score higher on the chosen outcomes than employees with unilateral commitments (to the team and the organization). Results from a survey study ($n = 1362$) confirmed our hypotheses for citizenship behavior. With regard to efficacy beliefs and turnover intentions, however, compensatory interactions were observed and dually committed employees scored higher on the team-directed outcome components. The theoretical and practical implications of these findings are discussed.

1. Introduction

Affective commitment to the organization and to the team¹ are two desirable and distinct workplace attachments because they are differentially predictive of important workplace outcomes (Meyer & Herscovitch, 2001; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Riketta & van Dick, 2005). Given today's trend in organizations toward more decentralized and team-based structures, commitment scholars have increasingly encouraged the promotion of team commitment because it is more important for group-oriented behavior and team effectiveness (e.g. Galletta, Portoghese, Coppola, Finco, & Campagna, 2014; Ganesh & Gupta, 2015). Most of what is known about team and organizational commitment, however, is based on studies of their relative strength (Riketta & van Dick, 2005) or additive effects (e.g. Redman & Snape, 2005). Little attention has been paid to interactions and commitment profiles. The present study aims to contribute to a more comprehensive understanding of the behavioral implications of the two commitments by investigating their interplay from both a variable-centered and person-centered perspective. First, using a variable-centered approach, we will show that existing theories result in unclear predictions about how the two commitments interact with regard to

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¹ The term “team” is used in this paper to denote organizational subunits that involve shared group goals and task interdependence among their members. It is important to note that the commitment literature often uses the terms “team commitment” and “workgroup commitment” interchangeably.

team- and organization-directed citizenship behavior, efficacy beliefs, and turnover intentions. Based on social identity and consistency theory (Brewer, 1991; Festinger, 1962; Tajfel & Turner, 1986), we will test the proposition that each commitment adds to and reinforces the other's association with its primarily corresponding outcome component, rather than being redundant as suggested by the so called "target similarity principle" (Lavelle, Rupp, & Brockner, 2007). By differentiating between team- and organization-directed outcome components, our variable-centered analysis builds on and extends research of direct effects (Riketta & van Dick, 2005) and indirect effects (van Dick, van Knippenberg, Kerschreiter, Hertel, & Wieseke, 2008). As will be shown, employees sufficiently discriminate between team- and organization-directed outcome components and may thus score high in one direction but not the other. Accordingly, additive and interactive effects may occur at one or both outcome levels. Our analysis will thus allow more robust conclusions about the benefits of any single commitment to be drawn (Meyer, Morin, & Vandenberghe, 2015).

At the same time, we recognize that variable-centered analyses have limitations: they describe how variables function across individuals, but do not take into account the existence of meaningful subgroups that may form based on commitment combinations (Meyer & Morin, 2016; Morin, Morizot, Boudrias, & Madore, 2010). The resulting commitment patterns may have differential performance implications that are not necessarily captured by variable-centered approaches because the latter represent a synthesis or "estimated average" of the observed relationships in a sample (Morin et al., 2010). Recent research has corroborated the usefulness of studying commitment profiles (Meyer & Morin, 2016; Meyer et al., 2015). Our main proposition is that a dual commitment profile (i.e. high team and high organizational commitment) provides added value over unilateral constellations because each commitment adds to and reinforces the other's effect on the investigated outcome components. Thus, in spite of today's tug toward team-based structures, organizations may be well advised to promote both commitments.

2. Multiple foci of commitment and dual commitment

Commitment researchers have long recognized that employees can feel committed to more than one target at a time, and that multiple commitments can operate simultaneously in organizational settings (Becker, 1992; Bishop & Scott, 2000; Felfe, Schmook, Schyns, & Six, 2008; Reichers, 1986). For example, in addition to feeling committed to their organization as a whole, employees may feel committed to their more immediate workgroup or team, their supervisor (Stinglhamber, Bentein, & Vandenberghe, 2002), occupation (Vandenberghe, Stinglhamber, Bentein, & Delhaise, 2001), union (Gordon & Ladd, 1990), or customers (Stinglhamber et al., 2002). Moreover, as contingent workers, employees may feel committed toward their agency and the hiring parent company (Coyle-Shapiro & Morrow, 2006; Felfe, Schmook, Six, & Wieland, 2005); or, as expatriates, toward their parent company and the local operation (Nguyen, Felfe, & Fookan, 2015). All these foci may differ with regard to their psychological distance (the team is more proximal while the organization is more distal) and independence (nested or not nested). While supervisor and customers are independent entities or targets, teams are clearly nested within the organization. Such nested commitments are of particular interest. Although they may be assumed to be highly correlated, distinguishing between higher- and lower-order commitments allows the examination of their unique impact, their interplay, and specific profiles resulting from different commitment combinations. The term "dual commitment" is generally used to refer to a simultaneous commitment to two foci. For instance, employees that are committed to both the entire organization and their team or workgroup may be considered to be "dually committed". Similarly, simultaneous commitment to the supervisor and the organization is seen as a form of dual commitment (Meyer et al., 2015), as is expatriates' commitment to their parent company and a foreign subsidiary (Nguyen et al., 2015).

In an attempt to determine the differential effects of multiple commitments on employee outcomes, existing multi-foci research has shown that the strongest relationships exist if the commitment and the outcome variable are directed at the same target. They thus seem to follow the "target similarity principle" (Lavelle et al., 2007) or "compatibility hypothesis" (Snape, Chan, & Redman, 2006). For instance, team commitment has been found to be more strongly related to team performance and team-directed helping behavior, whereas organizational commitment is more strongly related to organizational turnover or compliance with organizational rules (Chan, Tong-qing, Redman, & Snape, 2006; Lavelle, Konovsky, & Brockner, 2005; Olkkonen & Lipponen, 2006; Riketta & van Dick, 2005). Based on the target similarity principle, commitment to one target is considered to be sufficient to predict outcomes directed at the same target, while commitments to other non-matching targets are largely redundant (in the sense that they are irrelevant for the improvement of outcome predictions). In line with this view, Stinglhamber et al. (2002) found no incremental validity for team commitment over and above organizational commitment when predicting turnover intentions and actual turnover. In their elaboration of the target principle, Lavelle et al. (2009) stated that if interactions are observed at all, they should be compensatory in nature (i.e. the non-matching commitment may partially compensate low levels of the matching or focal commitment). With regard to team and organizational commitment, however, results regarding this redundancy are mixed. While some researchers have found no evidence of additive cross-over effects (Bishop, Scott, Goldsby, & Cropanzano, 2005; Lavelle et al., 2009), van Dick et al. (2008) suggested that team and organizational commitment should interact with each other to enhance their positive effects on employee performance. Drawing on consistency theory (Festinger, 1962), these authors argued that a positive overlap between team and organizational attachment satisfies employees' desire to feel self-conceptually consistent about their workplace memberships, resulting in higher levels of work motivation and well-being. So far, however, the proposed enhancement effect could only be shown for employee citizenship behavior in a single study among bank and tourism employees, and a call for more research in different contexts and on other outcomes has been made to substantiate van Dick et al.'s (2008) findings. Importantly, existing evidence on the enhancement effect does not distinguish between different outcome components (i.e. team- and organization-directed citizenship behavior), thus leaving open the question if the suggested synergistic interaction works in one or both directions (i.e. team and organization). An important aim of the present study is thus to examine the extent to which van Dick et al.'s (2008) findings extend to other relevant workplace outcomes while distinguishing between team and organizational outcome levels. In fact,

if satisfied needs for self-consistency lead to higher levels of well-being and involvement, interaction effects should be found at both outcome levels, and occur not only for citizenship behavior but also for other relevant outcomes such as turnover intentions and efficacy beliefs as important correlates of performance. Our study thus contributes to an ongoing debate about the effects of the interplay of multiple commitments in the workplace. We will complement the traditional variable-centered approach by a person-centered approach to determine the extent to which both perspectives converge and deliver similar results. Furthermore, our study is practically relevant because it allows a more fine-grained analysis of the benefits of both team and organizational commitment. For instance, if organizational commitment predicts team performance beyond team commitment, and if the two commitments interact synergistically, team leaders may want to combine specific team-building measures with the promotion of overarching organizational values and goals to raise their subordinates' team performance. In the following, we will present our outcome variables and develop our hypotheses as to how team and organizational commitment combine to affect the different outcome components from both a variable- and person-centered perspective.

3. The variable-centered perspective

3.1. Organizational citizenship behavior

Organizational Citizenship Behavior (OCB) can be defined as discretionary behaviors that are not part of an employees' formal job role but nevertheless make a significant contribution to the effectiveness of an organization (Organ, 1988; Organ, Podsakoff, & MacKenzie, 2006). Furthermore, depending on the intended beneficiary of OCB, a distinction is made between OCBs directed toward the organization (OCBO) and toward individuals (OCBI) (i.e. team members). An example of OCBO would be attending voluntary meetings or events pertaining to the organization, while an example of OCBI would be volunteering to help other team members (Lavelle et al., 2005; Williams & Anderson, 1991).

Meta-analytic evidence highlights the general importance of OCB for employers. OCB is positively related to productivity, efficiency, and customer satisfaction (Podsakoff, Whiting, & Blume, 2009). Employee commitment has been shown to be a crucial predictor of OCB (Cooper-Hakim & Viswesvaran, 2005; Meyer et al., 2002). The basic tenet is that citizenship behaviors are motivated by positive workplace attitudes. In particular, research has shown that team commitment predicts OCB over and above organizational commitment (Becker, 1992). More detailed analyses have applied the multi-foci perspective of commitment to make differential predictions of OCB in terms of OCBO and OCBI. In line with the target-similarity principle, it was found that OCBO was more strongly related to organizational commitment, whereas OCBI was more strongly related to team commitment (Lavelle et al., 2009; Olkkonen & Lipponen, 2006; Riketta & van Dick, 2005). As stated before, however, it is unclear whether the target-specific predictions of one commitment can be improved by inclusion of the other commitment. Drawing on the target similarity principle, Lavelle et al. (2009) argued against an augmentation effect. However, this argument ignores the nested nature of teams in organizations (i.e. the team and the higher-order organization form a means-end chain; see Ashforth & Johnson, 2001). On the one hand, team members may display OCBO such as making suggestions to improve the organization because this may be useful for their team in terms of status, recognition, and extra resources. Team commitment can thus be an additional source of motivation for exhibiting OCBO beyond one's overall organizational commitment. We therefore suggest that Team commitment predicts organization-directed organizational behaviors (OCBO) over and above organizational commitment.

On the other hand, commitment to the overarching entity may provide meaning and purpose for the display of OCBI (such as helping other team members) beyond the more immediate influence of positive team affect and attachment to lower-order team goals. As Ashforth and Johnson (2001) have pointed out, immersion in a higher-order identity and an overall mission allows one to become part of an edifying collective and experience feelings of empowerment. Such feelings should make an additional contribution to involvement at the local level (i.e. team) and thus encourage OCBI beyond team commitment. Hence we expect that organizational commitment predicts team-directed citizenship behavior (OCBI) over and above team commitment.

Based on consistency theory, it may moreover be argued that team and organizational commitment mutually enhance each other in their target-specific effects on OCBI and OCBO. As van Dick et al. (2008) have pointed out with regard to consistency theory (Festinger, 1962; Heider, 1958), a positive overlap between team and organizational membership contributes to employees' needs to be consistent in their thoughts, feelings and affiliations, and thus increases their work motivation. Adding to this argument, optimal distinctiveness theory (Brewer, 1996) posits that individuals have fundamental but competing desires for assimilation with others and distinctiveness from others. With regard to the workplace, these desires are reconciled if employees feel dually attached to their organization and their team because a strong organizational commitment will facilitate feelings of belongingness to a larger collective while a strong team commitment facilitates feelings of uniqueness and exclusiveness within that collective. The satisfaction of these needs should add to employees' work involvement and thus make the positive effect of one commitment on its focal outcome (OCBI or OCBO) more contingent on the levels of the other. To summarize, we would expect that

H1a. : Team and organizational commitment augment and enhance each other in their positive relationships with organization-directed OCB (OCBO) and team-directed OCB (OCBI).

3.2. Collective efficacy belief

Collective efficacy belief refers to future-oriented judgements about the capabilities of a group (i.e. organization or team) to execute the courses of action required to produce given levels of attainment (Bandura, 1997, p. 477). Perceptions of collective

efficacy have been shown to be a good predictor of group performance (Gully, Incalcaterra, Joshi, & Beaubien, 2002; Jordan, Feild, & Armenakis, 2002; Lindsley, Brass, & Thomas, 1995; Parker, 1994).

There are two approaches for explaining why commitment should increase collective efficacy beliefs. The first argues that group efficacy is the product of how members process information about their group (e.g. about past performance) (Gibson & Earley, 2007). Affective states have a strong influence on what type of group information will be retained or dismissed, and this information will determine group efficacy perceptions (Lin, Lin, Huang, & Wang, 2014). Given that affective commitment signifies a strong positive affect toward the group, highly committed group members should have a greater inclination to process favorable information about their group and thus believe more strongly in their group's efficacy. The second explanation draws on social identity theory to argue that the more individuals feel affectively attached to a group, the more they want to perceive their group as efficacious because it reflects positively on their group's identity and thus themselves (Shamir, Brainin, Zakay, & Popper, 2000).

Applying the multi-foci framework to employees' efficacy perceptions, it may be argued that team commitment has a positive effect on team efficacy beliefs, and organizational commitment has a positive effect on organizational efficacy beliefs. The distinction between the two foci seems worth making because employees may have confidence in the abilities of their team but not the organization and vice versa. However, given that the team is nested in the organization, team and organizational efficacy and performance are not completely independent. A team cannot fully perform its assigned goals without support from other teams and the organization as a whole, and other teams and the overall organization rely on own team support for task accomplishment. Organizational commitment should thus add to the positive effect of team commitment on team efficacy beliefs, and team commitment should add to the positive effect of organizational commitment on organizational efficacy beliefs. Furthermore, if the two commitments are perceived as compatible and consistent, they may reinforce each other to provide a more positive "frame of mind" for processing information about the team and the organization that goes beyond the sum of the parts. This enhanced positive affect should also result in higher team- and organization-directed efficacy perceptions. Therefore,

H1b. : Team and organizational commitment augment and enhance each other in their positive relationships with organization-directed and team-directed efficacy beliefs.

3.3. Turnover intentions

Turnover intentions can be defined as the intensity of an individual's desire to leave the organization or team. Research has shown that organizational turnover is a considerable cost factor for organizations. Meta-analytical evidence suggests a significant negative relationship between voluntary turnover and the financial performance of organizations (Park & Shaw, 2013). As numerous studies have demonstrated, committed employees are less likely to leave their organization, especially if they are affectively committed (Cohen, 1993; Meyer et al., 2002). This is because affective commitment is based on the congruence between individuals' own values and goals and those of the organization. The attachment thus involves a genuine wish to stay as opposed to continuance or normative commitment. As with OCB, turnover intentions have an organization-level and a team-level component. The distinction seems worth making, especially for highly differentiated organizations that involve distinct team cultures. For example, expatriate managers may wish to quit their assignment to a foreign operation because of difficulties in adapting to the local culture. However, they may wish to remain within the overall organization (Nguyen et al., 2015). Conversely, employees may be emotionally attached to other members of their team and experience a strong desire to stay in their team. Due to a lack of organizational support or an insufficient work infrastructure, however, their intentions to stay within the organization may be less pronounced. Hence, although the two turnover foci are correlated, they may be sufficiently distinct to allow separate analyses.

So far, research has focused on the relationship between organizational commitment and organizational turnover. Team level effects (e.g. "To what extent does team commitment predict team turnover intentions?") as well as cross-level effects (e.g. "Can team commitment predict organizational turnover over and above organizational commitment?") have not been examined. In one recent exception, Nguyen et al. (2015) found that commitment to the parent company (organizational level) can attenuate the effect of commitment to the local operation (comparable to team level) on turnover intentions on international assignments.

According to the target similarity principle, team commitment should be the better predictor of team turnover intentions, whereas organizational commitment should be the better predictor of organizational turnover intentions. Furthermore, considering the nested nature of team and organizational membership, incremental improvements in target-specific predictions by one commitment over the other also seem likely. A positive affect toward one's team may be a decisive factor for employees' desire to remain with the overall organization, and team turnover intentions may contain organization-specific elements that vary with their organizational commitment (e.g. office infrastructure, relationship with other teams, etc.). The more the two commitments are aligned and positive, the more employees should feel self-conceptually consistent and be able to satisfy needs for consistency and optimal distinctiveness. Higher levels of one commitment should thus reinforce the other in reducing target-specific turnover intentions. We therefore hypothesize:

H1c. : Team and organizational commitment augment and enhance each other in their positive relationships with organization-directed and team-directed turnover intentions.

4. The person-centered approach

According to Meyer et al. (2015), a recent trend in commitment research has been to employ a person-centered strategy to

identify subgroups with specific configurations of commitment mindsets (affective, normative, continuance) or targets (e.g. organization or supervisor). Using this strategy, earlier research tested Meyer and Herscovitch's (2001) proposition whether employees could be grouped based on their affective, normative, and calculative commitment mean/median scores (Gellatly, Meyer, & Luchak, 2006; Markovits, Davis, & van Dick, 2007), and found that some profiles relate to beneficial work outcomes more than others. However, the mean- or median split method may identify groups that do not naturally exist (Meyer, Stanley, & Vandenberg, 2013). Therefore, more advanced statistical techniques have been used to identify naturally occurring subgroups. Using cluster analysis, Becker and Billings (1993) identified four commitment profiles (overall high, overall low, local, and global) on the basis of four targets (organization, top management, supervisor, and team) within a military sample. The dually committed groups (organization - team and organization - supervisor) had the highest scores on prosocial behavior and intention to stay. Furthermore, the local groups (with a unilateral commitment to the supervisor or the team) scored higher on team-directed outcomes than the global groups (with a unilateral commitment to the organization or the top management). However, this study did not use the Allen and Meyer (1990) commitment measure, which would have facilitated comparisons across studies. In a more recent examination, Morin et al. (2010) used latent profile analysis (LPA) to identify five groups on the basis of seven targets (including supervisor, organization, and team): overall high and low committed groups, and groups that were predominantly committed to one target only. However, they found little differentiation across profiles with regard to organizational commitment, and there was no group that was predominantly committed to the team but not to the organization. Again, the Allen and Meyer (1990) measure was not used. More recently, Meyer et al. (2015) examined dual commitment to the organization and the supervisor. They were able to identify five groups based on two targets and three mindsets, and showed that the groups differed on voluntary turnover. However, there was no support for the existence of unilaterally committed groups (to the supervisor or organization), and consequently no specific effect of unilateral commitments on turnover was examined.

In summary, previous findings are mostly consistent regarding the existence and meaning of dual high and low commitment profiles. However, there seems to be some inconsistency with regard to unilateral profiles. With the exception of Becker and Billings (1993), there is little support for the existence of such profiles. Since these authors were able to distinguish local and global commitment profiles, we expect to find empirical support for profiles of dual high and dual low commitment, as well as two unilateral commitment profiles (to the team and the organization only).

H2. Team and organizational commitment combine to form four commitment profiles: dual high commitment, dual low commitment, unilateral commitment to the team, and unilateral commitment to the organization.

Based on our reasoning in the variable-centered section, we hypothesize:

H2a. : Employees with a high dual commitment display higher levels of organization-directed citizenship behavior (OCBO) and team-directed citizenship behavior (OCBI) than employees that are unilaterally committed (to their organization or their team, respectively).

H2b. : Employees with a high dual commitment display higher levels of organization-directed efficacy beliefs (OEB) and team-directed efficacy beliefs (TEB) than employees that are unilaterally committed (to their organization or their team, respectively).

H2c. : Employees with a high dual commitment display lower levels of organization-directed turnover intentions (OTI) and team-directed turnover intentions (TTI) than employees that are unilaterally committed (to their organization or their team, respectively).

5. Method

To test our hypotheses, we conducted a survey study among service members of the German military. The military was considered an appropriate setting because it is sufficiently large and differentiated to allow distinct team cultures to arise within the overall organization. When asked about team-level variables, participants were instructed to refer to their subunit and the persons they work together with to achieve a common goal, e.g. company, battery, squadron, ship, or boat. We provided examples to ensure that the term “team” was understood correctly. When asking for organization-level variables, we replaced the term “organization” with “Bundeswehr” (i.e. Federal Armed Forces) to ensure that the entire German defence force was understood as the reference entity. As will be shown, participants clearly distinguished between their team- and organization-directed commitments, citizenship behaviors, efficacy beliefs, and turnover intentions.

5.1. Sample and procedure

To ensure large cell sizes and sufficient sampling power, we invited members from all service branches (navy, army, air force) to participate in the survey. Participation was voluntary and confidential. The survey was administered online and in a paper-pencil form. The sample consisted of 1362 respondents. 91% were male. The average age was 25.7 years ($SD = 5.1$). Team tenure was: < 1 year: 32%; 1–4 years: 42%; 5 years or longer: 26%. Organizational tenure was: < 1 year: 17%; 1–4 years: 34%; 5 years or longer: 49%. The participants belonged to 114 different teams, with an average sampled team size of 12 individuals.

5.2. Measures

5.2.1. Organizational and team commitment

Felfe and Franke's (2012) validated German translation of Allen and Meyer's (1990) Commitment Scale provided four items for the measurement of affective organizational commitment (OC) (example: "I feel a strong sense of belonging to the Bundeswehr"), and three items for the measurement of affective team commitment (TC) (example: "I am proud to be part of this team"). Responses were recorded on a 5-point Likert scale. Both scales showed high reliabilities (α for OC = 0.81; α for TC = 0.86).

5.2.2. Organization- and team-directed citizenship behaviors

To measure OCBI, we used a validated German version (Felfe et al., 2005) of the altruism subscale of OCB from Podsakoff, MacKenzie, Moorman, and Fetter (1990). Three items of this measure tap into behavior intended to help one's team members (e.g. "I try to avoid creating problems for my team members"). OCBO was measured with three items from the "civic virtue" subscale in which the organization was the clearly intended beneficiary of the behavior (e.g. "I try to keep abreast of developments in the Bundeswehr, even if they do not relate to my immediate job tasks"). The reliabilities were acceptable (α for OCBO = 0.72; α for OCBI = 0.71).

5.2.3. Organization- and team-directed efficacy beliefs

To tap into efficacy perceptions, we used four items for each component based on Chen and Bliese's (2002) collective efficacy scale for use in military settings. The items were translated into German using the parallel blind technique (e.g. team-directed efficacy: "I have real confidence in my team's ability to achieve its tasks"; organization-directed efficacy: "The Bundeswehr is absolutely capable of performing its mission"). Both scales were highly reliable (α team-level efficacy = 0.86; α for organization-level efficacy = 0.88).

5.2.4. Organization- and team-directed turnover intentions

Single-item measures were used to collect data on participants' intention to leave the organization ("If I could, I would leave the Bundeswehr immediately") and their team ("If I could, I would leave the team immediately"). Responses were captured on a scale from 1 to 5, with higher scores indicating stronger turnover intentions.

Because research suggests that gender, age and tenure are related to OCB (Organ & Ryan, 1995), efficacy beliefs (Chen & Bliese, 2002), and turnover intentions (Griffeth, Hom, & Gaertner, 2000), we controlled for these variables in all our analyses.

5.3. Analytical strategy

We first conducted confirmatory factor analyses to determine whether commitment, OCB, and collective efficacy perceptions were distinguishable at the team and the organizational level. With regard to the single-item measurements of team- and organization-directed turnover intentions, a correlation of $r = 0.28$ suggested that participants sufficiently discriminated between the two components. The subsequent testing of our hypotheses from both a variable-centered and a person-centered perspective required the application of two data analysis strategies, namely multi-level linear regression (variable-centered approach) and latent profile analysis (person-centered approach). We began with multi-level linear regression to test the proposed additive and interactive effects. A multi-level approach was required because participants were nested within teams. Each outcome variable was regressed on a set of nested predictor models. First, we introduced the control variables (model 1), followed by the main effect of the focal commitment (model 2), and the main effect of the non-focal commitment (model 3). In a final step, the two-way interaction between OC and TC was estimated (model 4) and, if found significant, simple slopes (-1 SD and $+1$ SD) were examined to determine whether the interaction was in keeping with our hypotheses. The variance at team level and the variance at individual level as well as their Wald Z-statistic were calculated to indicate the significance of the nesting structure. Moreover, we calculated the proportional reduction of individual level (level 1) error variance associated with the inclusion of TC and OC (model 2 and 3) and the interaction TC \times OC (model 4).

Our person-centered hypotheses (H2, H2a, H2b, H2c) were tested using latent profile analysis (e.g., Morin et al., 2010; Troche & Herzberg, 2016; Valero & Hirschi, 2016). First, we explored what groups of individuals could be extracted in our study population using OC and TC as latent indicators. In general, LPA profiles can differ both quantitatively (i.e. simultaneously low, moderate and high levels of TC and OC) and qualitatively (differing levels of TC and OC resulting in unilateral commitments). We conducted our analysis using the maximum likelihood procedure of Mplus 7.4, starting with two commitment profiles and subsequently adding profiles. TC and OC were standardized to facilitate interpretation of the profile solutions. To avoid converging on a local solution, we used 1000 random sets of start values and retained the 100 best solutions for final stage optimization. The optimal number of profiles was determined based on theoretical considerations, substantive meaning (i.e. absence of small profiles), statistical adequacy (e.g., absence of negative variance estimates (Bauer & Curran, 2004)), and model fit. The fit indices used were the Loglikelihood (LL), the Akaike Information Criterion (AIC), the Bayesian information criterion (BIC), and the sample-adjusted BIC (SABIC). Once the final model was obtained, we tested our person-centered hypotheses using the AUXILIARY (E) function of Mplus. This function provides a Wald chi-square significance test of difference in outcome means across the extracted profiles. Our hypotheses would thus be supported if a profile of individuals high in dual commitment existed that showed significantly higher scores on the team- and organization-directed outcome components than individuals with other (i.e. unilateral or low and moderate dual commitment) profiles.

Table 1
Descriptive statistics and correlations.

Variable	Mean	SD	1	2	3	4	5	6	7
1. Organizational commitment (OC)	3.63	0.95							
2. Team commitment (TC)	3.02	0.97	0.31						
3. Citizenship behavior, organization (OCBO)	3.76	0.86	0.25	0.18					
4. Citizenship behavior, team (OCBI)	3.25	0.91	0.23	0.24	0.45				
5. Efficacy beliefs, organization (OEB)	3.47	0.96	0.54	0.29	0.11	0.04			
6. Efficacy beliefs, team (OET)	3.65	0.93	0.25	0.59	0.12	0.12	0.32		
7. Turnover intentions, organization (OTI)	1.96	1.26	-0.62	-0.27	-0.09	-0.08	-0.44	-0.23	
8. Turnover intentions, team (TTI)	2.49	1.44	-0.22	-0.58	-0.06	-0.12	-0.15	-0.49	0.29

Note. *n*'s are ranging from 1297 to 1343. All correlations above $|0.05|$ are significant at the 0.05 level.

6. Results

6.1. Confirmatory factor analysis

The descriptive statistics (means, standard deviations, and correlations) of our study variables are reported in Table 1. We compared indices for one-, two-, three- and six-factor solutions. The one-factor solution included all variables as a general factor and served as the baseline model. The two-factor solution discriminated between the team- and organization-directed components of our study variables but not between the variables themselves (i.e. team-directed commitment, citizenship behavior, and efficacy beliefs were collapsed into a single factor, as was organization-directed commitment, citizenship behavior, and efficacy beliefs). Conversely, the three-factor solution distinguished between the three outcome variables but not between their team- and the organization-directed components. Finally, the six-factor model distinguished between both the variables and their components. The results show that the fit indices for the six-factor solution (AGFI: 0.95, RMSEA: 0.04) reproduced the data significantly better than the 1, 2, or 3 factor model: AGFI: 0.44, 0.55, and 0.59; RMSEA: 0.17, 0.14 and 0.14, respectively. Furthermore, Table 1 shows that the components were only moderately correlated: $r = 0.31$ for commitment, $r = 0.45$ for OCB, and $r = 0.32$ for efficacy beliefs. Along with the CFA results, these correlations suggest that participants sufficiently discriminated between both the main outcome variables (commitment, OCB, efficacy beliefs) and their team- and organization-directed components.

6.2. Variable-centered analysis based on multi-level linear regression

Models 1a to 4a in Table 2 show the regression results for OCBO. Our hypotheses that team commitment (TC) explains additional variance in OCBO when controlling for organizational commitment (OC) were confirmed. After adding TC, the variance at the individual level dropped from 0.66 to 0.60, meaning that $(1 - 0.60 / 0.66) = 9.1\%$ of additional variance could be explained by TC. Furthermore, the interaction between the two commitments was significant and indicated a synergistic effect as expected ($\beta = 0.05$, $p < 0.05$; see model 4a in conjunction with Fig. 1 below). The incremental variance explained by the TC \times OC interaction was 0.5%.

The regression results for OCBI are shown in Table 3, models 1d–4d. As expected, organizational commitment predicts OCBI over and above team commitment, with the addition of 3% of explained variance at the individual level. Furthermore, the TC \times OC interaction reached significance ($\beta = 0.07$, $p < 0.01$), adding another 1% of explained variance (see model 4d). The two commitments enhance each other in their positive effects, as predicted. H1a could thus be confirmed with regard to the organization and team-directed component of citizenship behavior.

The regression findings for OEB are displayed in Table 2. We hypothesized that TC would add to and reinforce the positive relationship of OC with OEB (H1b). While the main effect of TC was found to be significant ($\beta = 0.05$, $p < 0.05$), no reduction in level 1 error variance was observed by adding this variable. Furthermore, the interaction effect reached significance ($\beta = -0.07$, $p < 0.01$) and explained an additional 1% in error variance. However, this effect was compensatory rather than synergistic as we had expected. H1b could thus not be confirmed with regard to OEB.

As shown in Table 3 (model 2e), there is a strong positive relationship between TC and TEB ($\beta = 0.58$, $p < 0.01$). The inclusion of TC accounts for an additional 36% of individual level variance after controlling for tenure and gender. OC adds to this relationship, as proposed by H1b ($\beta = 0.09$, $p < 0.01$; see model 3e). The proportional reduction of level 1 variance by inclusion of OC equals 1%. However, the hypothesized enhancement interaction was not borne out ($\beta = -0.02$, $p = 0.19$; see model 4e). Hence, H1b was only partially confirmed with regard to team-directed efficacy beliefs.

Models 1c to 4c in Table 2 show the results for OTI. The expected negative relationship of TC and OTI (H1c) after controlling for OC was supported ($\beta = -0.09$, $p < 0.01$; see model 3c). TC reduced incremental variance in OTI by 1%. Moreover, a significant interaction effect was found ($\beta = 0.07$, $p < 0.01$, see model 4c). Contrary to the expected enhancement effect, however, TC partly compensated the negative relationship between OC and OTI (see Fig. 2). Hence H1c could only be partially supported.

TTI results are found in Table 3, models 1f to 4f. We expected that OC would explain incremental variance after controlling for TC, and make its negative relationship with TC more negative (H1c). However, none of these effects was borne out. Only team commitment was strongly negatively related to TTI ($\beta = -0.86$, $p < 0.01$; see model 4f) and explained 34% of incremental variance in

Table 2
Multiple regression results for organization-directed citizenship behaviors, efficacy beliefs, and turnover intentions.

Variables	A) Organization-directed citizenship behavior				B) Organization-directed efficacy beliefs				C) Organization-directed turnover intention			
	1a	2a	3a	4a	1b	2b	3b	4b	1c	2c	3c	4c
Model 1: controls												
Gender												
Male (ref.)												
Female	-0.04**	-0.05**	-0.05**	-0.05**	0.06**	0.03**	0.03**	0.03**	-0.28**	-0.24**	-0.25**	-0.25**
Organizational tenure												
1–4 years (ref.)												
5 years or more	0.41**	0.37**	0.37**	0.38**	-0.14**	-0.25**	-0.25**	-0.24**	0.08**	0.27**	0.24**	0.24**
Team tenure												
1–4 years (ref.)												
5 years or more	0.16**	0.16**	0.13**	0.12**	0.01**	0.00**	0.00**	0.00**	0.03**	0.04**	0.07**	0.06**
Model 2: main effect OC												
Organizational commitment		0.23**	0.20**	0.21**		0.56**	0.55**	0.53**		-0.84**	-0.81**	-0.79**
Model 3: main effect TC												
Team commitment			0.11**	0.10**			0.05**	0.05**			-0.09**	-0.10**
Model 4: two-way interaction												
TC × OC				0.05**								0.07**
Variance at individual level	0.74**	0.66**	0.60**	0.60**	0.91**	0.64**	0.64**	0.63**	1.59**	0.96**	0.95**	0.94**
Wald Z statistic	25.79	25.70	25.70	25.68	25.94	25.93	25.92	25.91	25.79	25.78	25.78	25.77
Variance at team level	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**
Wald Z statistic	0.61	0.50	0.43	0.43	0.58	0.59	0.60	0.60	0.53	0.53	0.56	0.56

Note. Standardized regression coefficients are shown.

** $p < 0.01$.

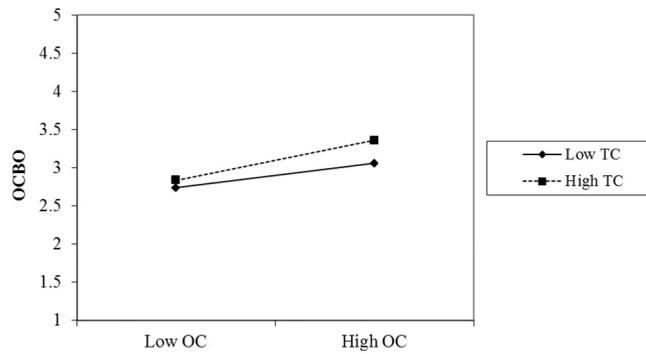


Fig. 1. TC as a moderator of the relationship between OC and OCBO.

Table 3
Multiple regression results for team-directed citizenship behaviors, efficacy beliefs, and turnover intentions.

Variables	D) Team-directed citizenship behavior				E) Team-directed efficacy beliefs				F) Team-directed turnover intention			
	1d	2d	3d	4d	1e	2e	3e	4e	1f	2f	3f	4f
Model 1: controls												
Gender												
Male (ref.)												
Female	-0.09**	-0.08**	-0.09**	-0.09**	-0.01**	0.01**	0.00**	0.00**	-0.07**	-0.11**	-0.10**	-0.10**
Organizational tenure												
1–4 years (ref.)												
5 years or more	0.55**	0.55**	0.52**	0.52**	-0.04**	0.01**	0.00**	0.00**	0.02**	0.04**	0.03**	0.03**
Team tenure												
1–4 years (ref.)												
5 years or more	0.12**	0.05**	0.06**	0.06**	0.01**	-0.13**	-0.12**	-0.12**	-0.19**	0.04**	0.03**	0.04**
Model 2: main effect TC												
Team commitment		0.21**	0.17**	0.17**		0.58**	0.55**	0.55**		-0.88**	-0.86**	-0.86**
Model 3: main effect												
OC												
Organizational commitment			0.14**	0.15**			0.09**	0.08**			-0.06**	-0.06**
Model 4: two-way interaction												
TC × OC												
Variance at individual level	0.74**	0.70**	0.68**	0.68**	0.86**	0.55**	0.54**	0.54**	2.99**	1.38**	1.38**	1.38**
Wald Z statistic	25.67	25.66	25.65	25.64	25.94	25.94	25.93	25.92	25.77	25.77	25.76	25.75
Variance at team level												
Wald Z statistic	0.62	0.59	0.60	0.60	0.51	0.00	0.00	0.00	0.44	0.00	0.00	0.00

Note. Standardized regression coefficients are shown.

** $p < 0.01$.

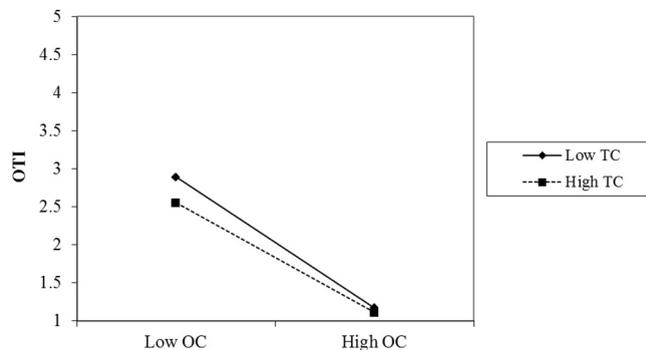


Fig. 2. TC as a moderator of the relationship between OC and OTI.

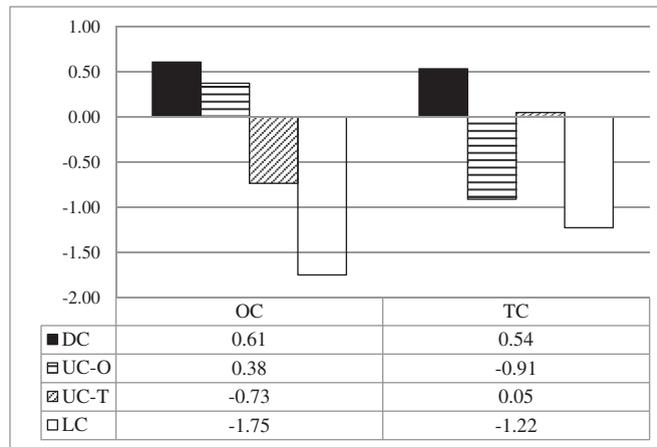


Fig. 3. Standardized TC and OC means of the four latent profiles. DC = dual commitment, UC-O = unilateral commitment to the organization, UC-T = unilateral commitment to the team, LC = lowly committed.

this outcome. H1c thus had to be discarded.

To sum up, our regression results fully support the hypothesized additive and synergistic cross-over effects for OCB (H1a). With regard to the organization-level components of efficacy beliefs and turnover intentions, TC was found to add to but not enhance the relationship of organizational commitment with these outcomes. Their team-level components were most strongly predicted by team commitment. Organizational commitment explained some additional variance in team-directed efficacy beliefs, as proposed by H1b, but not in team-directed turnover intentions, as proposed by H1c. H1b and H1c were thus only partially confirmed. In particular, the synergistic interaction proposed by these two hypotheses was not borne out. Instead, there is some support for a compensatory interaction.

6.3. Person-centered analyses using latent profile analysis

We hypothesized that a group of individuals with a strong dual commitment exists (H2) that displays higher levels of team- and organization-directed citizenship behavior (H2a), efficacy beliefs (H2b), and turnover-intentions (H2c) than any other groups with qualitatively or quantitatively different commitment profiles. Overall, we compared two to seven commitment profiles based on their fit indices and practical significance as indicated by their latent class counts. The six- and seven-profile solutions were discarded because each contained a profile with zero members. As for the remaining indices and profiles, the AIC reached its lowest value for the solution with five classes, whereas the BIC and SABIC both converged on the four-profile solution. We chose the four-profile solution because it contained a sufficiently large number of members within each class, whereas the five-profile solution contained one class of only 26 out of 1373 individuals or 1.89% of the sample population. This number was considered too small to be practically meaningful. Fig. 3 shows the standardized means of TC and OC across the profiles of the final four-profile solution. As expected (H2), we found one profile with relatively high means on both commitments, suggesting that employees with a strong sense of dual commitment exist. This “dual commitment” profile described 49% of the individuals in our study. Furthermore, we reasoned that employees may also feel unilaterally committed. Profiles 2 and 3 represent such unilateral commitments: 15% were classified as unilaterally committed to the organization (UC-O), and 27% as unilaterally committed to their team (UC-T). Finally, 9% showed low commitment to both entities (LC). Hypothesis H2 was thus confirmed.

To test our person-centered hypotheses (H2a, H2b and H2c), we compared the mean levels of our six outcome variables across the four retained profiles (see Fig. 3) and conducted the corresponding Wald significance test of differences in mean outcomes. With regard to the organization-directed outcomes, the test results show that dually committed employees scored significantly higher on both organization- and team-directed citizenship behavior (OCBO and OCBI) than any of the remaining profiles. H2a was thus confirmed. Furthermore, dually committed employees displayed significantly higher levels of team-directed efficacy beliefs (TEB); however, their organization-directed efficacy belief (OEB) was stronger but not statistically different from those that were unilaterally committed to their organization. H2b could thus only be partially supported. Finally, dually committed employees showed significantly lower levels of organization- and team-directed turnover intentions (OTI and TTI) than any of the remaining profiles. H2c was thus also confirmed. Hence, in summary, the person-centered hypotheses were largely supported.

7. Discussion

In the light of a growing interest in the interplay of multiple commitments, dual commitment can be considered as a specific case when members of an organization are simultaneously committed to the entire organization and to their team or work unit that is nested in this organization. The aim of this study was to investigate the joint impact of team and organizational commitment on employees' team- and organization-directed citizenship behavior, efficacy beliefs, and turnover intentions from both a variable- and

from a person-centered perspective. Existing research based on the target similarity principle (Lavelle et al., 2007) suggests that commitment to one target is sufficient to influence behavior directed at the same target. Therefore, commitment to the other target should be largely redundant in predicting target-specific behaviors, resulting in compensatory interactions. By contrast, for example, van Dick et al. (2008) proposed that team and organizational commitment should interact synergistically to enhance employee performance outcomes because of satisfied needs for self-consistency and optimal distinctiveness. Although our hypotheses primarily drew on and extended van Dick et al.'s (2008) reasoning, our study provides support for both perspectives and shows that interactions may work in one direction (e.g. organization) but not the other (e.g. team). Furthermore, the adoption of a person-centered approach provided insight into the meaning of dual commitment by showing that different team and organizational commitment profiles exist in terms of dual and unilateral commitment, and differentially relate to outcome criteria.

With regard to OCB, we were able to show that team commitment predicts the organization-directed component over and above organizational commitment and, conversely, that organizational commitment predicts the team-directed component over and above team commitment. This finding supports and extends previous research that has proven incremental validities for team commitment for the prediction of OCB (Becker, 1992; van Dick et al., 2008). More importantly, however, we were able to show that the two commitments interact synergistically to promote the target-specific components of OCB. This means that employees' performance at both the organization and the team level can be enhanced if both commitments are high. Although critics may argue that the small effect sizes are not meaningful for practitioners, Evans (1985) has shown that moderator effects are often underestimated. Therefore, even interactions accounting for as little as 1% of variance may be considered substantial. Our study extends previous findings from van Dick et al. (2008), who demonstrated enhancement effects but did not distinguish between two outcome components.

This variable-centered finding is corroborated in our person-centered analysis. We were able to show that dually committed employees can be distinguished from other profiles (i.e. unilateral commitment, non-commitment), and that these employees display comparatively higher levels of team- and organization-directed OCB. Our results thus confirm the findings of Becker and Billings (1993). Besides two dual high and low committed groups, these authors already identified a local and global commitment group very similar to the two unilateral groups found in our study. Therefore, there is further evidence for the distinction between groups that are either committed to the team or to the organization. While the levels of team- and organization-directed OCB are mostly similar with regard to the corresponding effects (e.g. higher team-directed OCB in the unilateral team committed group), our findings show clearly that dual commitment results in higher levels of OCB than unilateral commitment, supporting the enhancement hypothesis. Overall, our results provide evidence for the target similarity principle but also for enhancement with regard to different OCB targets.

van Dick et al. (2008) required clarification of whether the interactive effects of team and organizational attachment would persist beyond OCB and apply symmetrically to other outcomes. As far as employees' efficacy perceptions and turnover intentions are concerned, however, our results do not support the proposed enhancement effects. With regard to team-directed efficacy beliefs, we observed an additive effect of organizational commitment beyond that of team commitment. Apparently, team members are more likely to have confidence in their team's ability to perform a collective task if they feel positive about the organization as a whole. However, this incremental effect was only marginal. Team commitment was the strongest predictor of team-directed efficacy beliefs, suggesting that if team commitment is lacking, confidence in one's team may be considerably diminished regardless of the level of organizational commitment. Furthermore, given that there was no significant interaction, organizational commitment seems to add but not to compensate or reinforce the positive effect of team commitment on this outcome variable (independent effect). The picture is slightly different for organization-directed efficacy beliefs. While our results show no incremental predictive value of team commitment beyond organizational commitment, a significant compensatory effect was present. This means that team commitment can partially make up for low levels of organizational efficacy beliefs if team members' organizational commitment is low. Overall, our findings for collective efficacy beliefs rather support the target similarity principle because one commitment seems to be largely sufficient to predict the outcome component at the same target level.

Our person-centered analysis complements the findings on the variable level. As expected, the groups can be differentiated with regard to their team-directed efficacy beliefs in the expected order: 1) dual high, 2) unilateral team, 3) unilateral organization, and 4) dual low. The same holds for the organization-directed efficacy beliefs in the order: 1) dual high, 2) unilateral organization 3) unilateral team, and 4) dual low. However, the difference between dual high and unilateral organization is not significant, which confirms the finding from our regression analysis that organizational commitment may compensate low team commitment.

To sum up, we find support for stronger relationships between corresponding variables (target similarity principle) and for the enhancement effects of dual commitment. Moreover, compared with OCB the interaction we found was compensatory instead of synergistic. With regard to team-directed turnover intentions, team commitment was shown to be a highly important predictor, with 34% of explained variance. Organizational commitment did not explain additional variance, nor did it interact with team commitment to affect this outcome. Hence the intention to remain with one's team seems to depend on one's team commitment and remain largely unaffected by how one feels about the organization as a whole. This is somewhat similar to Nguyen et al.'s (2015) finding that the influence of commitment to the local operation (team level) on turnover intentions in international assignments (team level) is stronger for those with lower commitment to the parent company (organizational level). Conversely, however, team commitment seems to have an impact on organizational turnover intentions over and above organizational commitment. While organizational commitment is clearly the more important predictor, we observed a significant interaction effect that indicates that a lack of organizational commitment can be partly compensated by a high team commitment.

Again, the person-centered analysis complements the findings on the variable level. As expected, the groups can be differentiated with regard to their organization-directed turnover intentions in the expected order: 1) dual high, 2) unilateral organization 3) unilateral team, and 4) dual low. The same holds for team-directed turnover intentions in the order: 1) dual high, 2) unilateral team, 3) unilateral organization, and 4) dual low. The non-significant difference between "unilateral organization" and "dual low" confirms

the result from the regression analysis that organizational commitment is not especially relevant.

As with efficacy beliefs, our results for turnover intentions support the validity of the target similarity principle, the value of dual commitment, and again the notion that team commitment can compensate the risk of low organizational commitment. However, in the other outcome direction, high organizational commitment may not compensate for low team commitment.

8. Limitations

The cross-sectional design of our study precludes causal inferences. For instance, it is conceivable that commitment affects efficacy beliefs as much as vice versa. When individuals perceive their team or the organization as effective, they may feel more committed. Similarly, the display of OCB may lead to more positive attitudes toward the organization or the team and thereby increase employees' team and organizational commitment. In this sense, the relationship between commitment, efficacy beliefs, and OCB may more appropriately be conceived of as interdependent. However, this does not diminish the importance of dual commitment or invalidate the observed interactions. A second limitation is that our data are self-reported. It might be argued that more objective indicators such as supervisor's OCB ratings, or actual turnover rates, would have increased the validity of our study. However, it should be noted that OCB, by definition, at least partly escapes the attention of supervisors. Likewise, turnover intentions can only be measured subjectively (Steel & Ovalle, 1984). Our results should thus be sufficiently valid.

The specific sample of our study may limit the transferability of our results. Commitment in the military may be distinctive from civil contexts. However, recent developments in the German military are characterized by an increasing influence of civilian values and management techniques, such as health programs, diversity management, family-friendly policies, voluntary service, and even the possibility to quit service during basic training. Classic stereotypes of the military may thus be more valid for specific units (e.g., combat units, special forces) but less valid for wide areas that function like a public administration. Accordingly, a comparison of organizational and team commitment of our study with data from civilian organizations in Germany reveals only small differences (Felfe & Franke, 2012). On a further note, our sample is biased with regard to age and sex. While women show only slightly higher commitment levels than men, commitment increases with age. Therefore the levels we report may be somewhat lower than we would expect from an older work force.

Considering our outcome variables in the specific context of the military, it is important to note that service is voluntary and that there are opportunities to change units. Due to HR practices, rotation and career development is encouraged. On the one hand, OCB may have somewhat different meanings in different teams: for some teams certain behaviors are rather in-role behavior (e.g. auxiliary or support tasks) than for other teams. On the other hand, some of our items explicitly ask for behaviors that do not fall within the scope of the "immediate task". Even if supporting others is the core task of a team, members may engage differently in helping one another. Moreover, a comparison of the relationships between commitment and OCB in our study with meta-analytic findings (e.g. Meyer et al., 2002) does not reveal any difference. Finally, results from a number of other studies in the military have been found to be mostly consistent with non-military findings (Becker & Billings, 1993; Meyer, Kam, Goldenberg, & Bremner, 2013). In the light of the above reasoning, we are confident that overall our results also apply to other organizations. Ultimately, of course, our hypotheses should be tested using non-military samples.

9. Theoretical implications and future research directions

Overall, our findings suggest that van Dick et al.'s (2008) enhancement hypothesis applies to outcomes regarding how employees perform their work and thus have a direct impact on team and organizational functioning. Our focus was on OCB such as supporting the organization or other team members. Future research should examine if in-role performance may be similarly affected by the interplay of team and organizational commitment.

Our results for the other outcomes (i.e. team- and organization-directed efficacy beliefs and turnover intentions) lend more support to the target similarity principle. In particular, high team commitment may compensate for the effects of low organizational commitment on organization directed self-efficacy beliefs and turnover intention, but not vice versa. Interestingly, with regard to efficacy beliefs and turnover intentions, we observed that the compensatory interaction only worked for the organization-level but not the team-level outcomes. This may be indicative of a generalization effect whereby team members project team efficacy beliefs and turnover intentions onto the organization but not vice versa. In more general terms, a strong commitment to a nested entity (team) may predispose subjects toward perception of the higher-order entity in more positive terms, whereas positive attitudes toward the higher-order entity do not necessarily feed into perceptions of lower-order entities such as teams, workgroups, and so on. Future multi-foci research should consider this possibility. That said, the failure to detect synergistic interactions in our study may have also been because the outcome levels were already very high (in the case of efficacy beliefs) or low (in the case of turnover intentions) at high levels of the focal commitment. There was thus little remaining variance for a further increase or decrease by entering the non-focal commitment, and thus for a synergistic interaction to occur.

Importantly, our study simultaneously followed a variable- and a person-centered approach. While the findings mostly converge, the person-centered strategy provides additional evidence for the relevance of dual commitment in contrast to a unilateral commitment. This is important when regression coefficients are less clear and differences remain undetected. Finally, we have raised the possibility that team and organizational commitment may be unrelated or even negatively related when team and organizational values are perceived as incompatible. Consequently, the degree of compatibility or overlap between these values may be an important three-way moderator of the interaction between lower- and higher-order commitments. For instance, if there is little overlap, team and organizational commitment are unlikely to add to and enhance each other to generate higher levels of employee citizenship

behavior. It is under these conditions that the person-centered approach realizes its full potential, because variable-centered approaches have very limited power to detect complex interactions (Aguinis, Gottfredson, & Wright, 2011).

10. Practical implications

Our study clearly underlines the value of dual commitment for the promotion of team- and organization-directed OCB. The question thus arises as to what can be done to create such a bond. Perhaps one of the most important levers is leadership which is displayed by team leaders. The commitment literature is replete with evidence highlighting the role of leadership in forming employees' attitudes and behavior toward organizationally relevant entities (Franke & Felfe, 2011; Meyer et al., 2002). Clearly, team leaders should foster their followers' identification with both the team and the organization. Besides promoting special slogans, logos, and rituals relevant to the team, or praising the team for good performance, team leaders should also appeal to the overarching organizational mission, and create awareness of the interdependencies that exist with other teams for the achievement of organizational goals. Followers that are thus led to combine their team and organizational commitment into a dual commitment may be more successful as team players and organizational citizens. Against this backdrop, it may equally be worth asking how leaders can manage to build a dual commitment when there is little overlap between team and organizational values. There are thus many open questions for future research to address.

References

- Aguinis, H., Gottfredson, R. K., & Wright, T. A. (2011). Best-practice recommendations for estimating interaction effects using meta-analysis. *Journal of Organizational Behavior*, 32(8), 1033–1043. <http://dx.doi.org/10.1002/job.719>.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63(1), 1–18.
- Ashforth, B. E., & Johnson, S. A. (2001). Which hat to wear? The relative salience of multiple identities in organizational contexts. In M. A. Hogg, & D. J. Terry (Eds.), *Social identity processes in organizational contexts* (pp. 31–48). E. Sussex: Psychology Press.
- Bandura, A. (1997). Collective efficacy. In A. Bandura (Ed.), *Self-efficacy: The exercise of control* (pp. 477–525). New York: Freeman.
- Bauer, D. J., & Curran, P. J. (2004). The integration of continuous and discrete latent variable models: Potential problems and promising opportunities. *Psychological Methods*, 9(1), 3–29.
- Becker, T. E. (1992). Foci and bases of commitment: Are they distinctions worth making? *The Academy of Management Journal*, 35(1), 232–244.
- Becker, T. E., & Billings, R. S. (1993). Profiles of commitment: An empirical test. *Journal of Organizational Behavior*, 14(2), 177–190.
- Bishop, J. W., & Scott, K. D. (2000). An examination of organizational and team commitment in a self-directed team environment. *Journal of Applied Psychology*, 85(3), 439–450.
- Bishop, J. W., Scott, K. D., Goldsby, M. G., & Cropanzano, R. (2005). A construct validity study of commitment and perceived support variables: A multifoci approach across different team environments. *Group & Organization Management*, 30(2), 153–180.
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17(5), 475–482.
- Brewer, M. B. (1996). When contact is not enough: Social identity and intergroup cooperation. *International Journal of Intercultural Relations*, 20(3–4), 291–303.
- Chan, A. W., Tong-qing, F., Redman, T., & Snape, E. (2006). Evaluating the multi-dimensional view of employee commitment: A comparative UK–Chinese study. *The International Journal of Human Resource Management*, 17(11), 1873–1887.
- Chen, G., & Bliese, P. D. (2002). The role of different levels of leadership in predicting self- and collective efficacy: Evidence for discontinuity. *Journal of Applied Psychology*, 87(3), 549–556.
- Cohen, A. (1993). Organizational commitment and turnover: A meta-analysis. *Academy of Management Journal*, 36(5), 1140–1157. <http://dx.doi.org/10.2307/256650>.
- Cooper-Hakim, A., & Viswesvaran, C. (2005). The construct of work commitment: Testing an integrative framework. *Psychological Bulletin*, 131(2), 241–259.
- Coyle-Shapiro, J. A. M., & Morrow, P. C. (2006). Organizational and client commitment among contracted employees. *Journal of Vocational Behavior*, 68(3), 416–431.
- van Dick, R., van Knippenberg, D., Kerschreiter, R., Hertel, G., & Wieseke, J. (2008). Interactive effects of work group and organizational identification on job satisfaction and extra-role behavior. *Journal of Vocational Behavior*, 72(3), 388–399.
- Evans, M. G. (1985). A Monte Carlo study of the effects of correlated method variance in moderated multiple regression analysis. *Organizational Behavior and Human Decision Processes*, 36(3), 305–323.
- Felfe, J., & Franke, F. (2012). *Commit: Commitment-Skalen: Fragebogen zur Erfassung von Commitment* [Commitment scales: Questionnaires to measure commitment]. Bern: Huber.
- Felfe, J., Schmook, R., Schyns, B., & Six, B. (2008). Does the form of employment make a difference?: Commitment of traditional, temporary, and self-employed workers. *Journal of Vocational Behavior*, 72(1), 81–94.
- Felfe, J., Schmook, R., Six, B., & Wieland, R. (2005). Commitment gegenüber Verleiher und Entleiher bei Zeitarbeitern [Commitment among contingent workers]. *Zeitschrift für Personalpsychologie*, 4(3), 101–115.
- Festinger, L. (1962). *A theory of cognitive dissonance*. Stanford, Calif: Stanford University Press.
- Franke, F., & Felfe, J. (2011). How does transformational leadership impact employees' psychological strain?: Examining differentiated effects and the moderating role of affective organizational commitment. *Leadership*, 7(3), 295–316.
- Ganesh, M. P., & Gupta, M. (2015). Impact of procedural justice perception on team commitment: Role of participatory safety and task routineness. *Journal of Advances in Management Research*, 12(2), 176–191.
- Galletta, M., Portoghese, I., Coppola, R. C., Finco, G., & Campagna, M. (2016). Nurses well-being in intensive care units: Study of factors promoting team commitment. *Nursing in Critical Care*, 21(3), 146–156. <http://dx.doi.org/10.1111/nicc.12083>.
- Gellatly, I. R., Meyer, J. P., & Luchak, A. A. (2006). Combined effects of the three commitment components on focal and discretionary behaviors: A test of Meyer and Herscovitch's propositions. *Journal of Vocational Behavior*, 69(2), 331–345.
- Gibson, C. B., & Earley, P. C. (2007). Collective cognition in action: Accumulation, interaction, examination, and accommodation in the development and operation of group efficacy beliefs in the workplace. *The Academy of Management Review*, 32(2), 438–458.
- Gordon, M. E., & Ladd, R. T. (1990). Dual allegiance: Renewal, reconsideration, and recantation. *Personnel Psychology*, 43(1), 37–69.
- Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, 26(3), 463–488.
- Gully, S. M., Incalcaterra, K. A., Joshi, A., & Beaubien, J. M. (2002). A meta-analysis of team-efficacy, potency, and performance: Interdependence and level of analysis as moderators of observed relationships. *Journal of Applied Psychology*, 87(5), 819–832.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.
- Jordan, M. H., Feild, H. S., & Armenakis, A. A. (2002). The relationship of group process variables and team performance: A team-level analysis in a field setting. *Small Group Research*, 33(1), 121–150.
- Lavelle, J. J., Brockner, J., Konovsky, M. A., Price, K. H., Henley, A. B., Taneja, A., & Vinekar, V. (2009). Commitment, procedural fairness, and organizational

- citizenship behavior: A multifoci analysis. *Journal of Organizational Behavior*, 30(3), 337–357.
- Lavelle, J. J., Konovsky, M. A., & Brockner, J. (2005). Differentiating the antecedents of OCBO and OCBI: A multiple commitments and justice framework. *Paper presented at the Academy of Management Annual Meeting, Honolulu, HI.*
- Lavelle, J. J., Rupp, D. E., & Brockner, J. (2007). Taking a multifoci approach to the study of justice, social exchange, and citizenship behavior: The target similarity model. *Journal of Management*, 33(6), 841–866.
- Lin, C.-W., Lin, C.-S., Huang, P.-C., & Wang, Y.-L. (2014). How group efficacy mediates the relationship between group affect and identification. *Journal of Business Research*, 67(7), 1388–1394.
- Lindsay, D. H., Brass, D. J., & Thomas, J. B. (1995). Efficacy-performance spirals: A multilevel perspective. *The Academy of Management Review*, 20(3), 645–678.
- Markovits, Y., Davis, A. J., & van Dick, R. (2007). Organizational commitment profiles and job satisfaction among Greek private and public sector employees. *International Journal of Cross Cultural Management*, 7(1), 77–99.
- Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review*, 11(3), 299.
- Meyer, J. P., Kam, C., Goldenberg, I., & Bremner, N. L. (2013a). Organizational commitment in the military: Application of a profile approach. *Military Psychology*, 25(4), 381–401.
- Meyer, J. P., & Morin, A. J. S. (2016). A person-centered approach to commitment research: Theory, research, and methodology. *Journal of Organizational Behavior*, 37(4), 584–612.
- Meyer, J. P., Morin, A. J. S., & Vandenberghe, C. (2015). Dual commitment to organization and supervisor: A person-centered approach. *Journal of Vocational Behavior*, 88(0), 56–72.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnysky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61(1), 20–52.
- Meyer, J. P., Stanley, L. J., & Vandenberg, R. J. (2013b). A person-centered approach to the study of commitment. *Human Resource Management Review*, 23(2), 190–202.
- Morin, A. J. S., Morizot, J., Boudrias, J.-S., & Madore, I. (2010). A multifoci person-centered perspective on workplace affective commitment: A latent profile/factor mixture analysis. *Organizational Research Methods*, 14(1), 58–90.
- Nguyen, P., Felfe, J., & Fookien, I. (2015). Interaction effects of dual organizational commitment on retention in international assignments: The case of western expatriates in Vietnam. *The International Journal of Human Resource Management*, 26(11), 1407–1427.
- Olkkonen, M.-E., & Lipponen, J. (2006). Relationships between organizational justice, identification with organization and work unit, and group-related outcomes. *Organizational Behavior and Human Decision Processes*, 100(2), 202–215.
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, Mass: Lexington Books.
- Organ, D. W., Podsakoff, P. M., & MacKenzie, S. B. (2006). *Organizational citizenship behavior: Its nature, antecedents, and consequences*. Thousand Oaks (CA): Sage Publications.
- Organ, D. W., & Ryan, K. E. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, 48(4), 775–802.
- Park, T.-Y., & Shaw, J. D. (2013). Turnover rates and organizational performance: A meta-analysis. *Journal of Applied Psychology*, 98(2), 268–309.
- Parker, L. E. (1994). Working together: Perceived self- and collective-efficacy at the workplace. *Journal of Applied Social Psychology*, 24(1), 43–59.
- Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *The Leadership Quarterly*, 1(2), 107–142.
- Podsakoff, P. M., Whiting, S. W., & Blume, B. D. (2009). Individual- and organizational-level consequences of organizational citizenship behaviors: A meta-analysis. *Journal of Applied Psychology*, 94(1), 122–141.
- Redman, T., & Snape, E. (2005). Unpacking commitment: Multiple loyalties and employee behaviour. *Journal of Management Studies*, 42(2), 301–328.
- Reichers, A. E. (1986). Conflict and organizational commitments. *Journal of Applied Psychology*, 71(3), 508–514.
- Riketta, M., & van Dick, R. (2005). Foci of attachment in organizations: A meta-analytic comparison of the strength and correlates of workgroup versus organizational identification and commitment. *Journal of Vocational Behavior*, 67(3), 490–510.
- Shamir, B., Brainin, E., Zakay, E., & Popper, M. (2000). Perceived combat readiness as collective efficacy: Individual- and group-level analysis. *Military Psychology*, 12(2), 105–119.
- Snape, E., Chan, A. W., & Redman, T. (2006). Multiple commitments in the Chinese context: Testing compatibility, cultural, and moderating hypotheses. *Journal of Vocational Behavior*, 69(2), 302–314.
- Steel, R. P., & Ovalle, N. K. (1984). A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover. *Journal of Applied Psychology*, 69(4), 673–686.
- Stinglhamber, F., Bentein, K., & Vandenberghe, C. (2002). Extension of the three-component model of commitment to five foci: Development of measures and substantive test. *European Journal of Psychological Assessment*, 18(2), 123–138.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behaviour. In W. G. Austin, & S. Worchel (Eds.), *Psychology of intergroup relations* (pp. 7–24). Chicago: Nelson-Hall.
- Troche, S. J., & Herzberg, P. Y. (2016). On the role of dominance and nurturance in the confluence model: A person-centered approach to the prediction of sexual aggression. *Aggressive Behavior*, 43(3), 251–262.
- Valero, D., & Hirschi, A. (2016). Latent profiles of work motivation in adolescents in relation to work expectations, goal engagement, and changes in work experiences. *Journal of Vocational Behavior*, 93, 67–80.
- Vandenberghe, C., Stinglhamber, F., Bentein, K., & Delhaise, T. (2001). An examination of the cross-cultural validity of a multidimensional model of commitment in Europe. *Journal of Cross-Cultural Psychology*, 32(3), 322–347.
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17(3), 601–617.