Antecedents of project managers’ voice behavior: The moderating effect of organization-based self-esteem and affective organizational commitment

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Abstract

Theory and research stress that employee voice behavior (VB; discretionary communication of ideas, suggestions, or concerns with the intent to improve organizational functioning) positively influences decision making, improvement, and innovation. However, the VB construct has rarely been studied in the specific context of project management. Using a sample of 618 project managers and 154 project portfolio coordinators nested in 154 firms, the main purpose of this study was to analyze a moderated model, in which specific contextual factors interact with individual-level variables to predict project managers’ VB. Consistent with our hypotheses derived from self-consistency theory, moderated hierarchical regression analysis revealed that idea encouragement, career perspectives, qualification opportunities, and peer collaboration related more positively to VB for project managers with a high level of organization-based self-esteem. For project managers high in affective organizational commitment, we found stronger positive relationships of peer collaboration and idea encouragement with project managers’ VB.

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1. Introduction

For about 50 years, extra-role behavior, i.e., discretionary behavior that is “not specified in advance by role descriptions” (Van Dyne and LePine, 1998, p. 108), has been recognized as beneficial for organizations, especially in dynamic environments (Morrison, 1994; Van Dyne and LePine, 1998). For example, Katz and Kahn (1966) noted that organizational effectiveness is aided by employees’ “innovative and spontaneous activities that are beyond the prescribed role requirements” (p. 146). In this study we focus on employee voice behavior (VB), a form of challenging and promotive behavior (LePine and Van Dyne, 1998), defined as “discretionary communication of ideas, suggestions, concerns, or opinions about work-related issues with the intent to improve organizational or unit functioning” (Morrison, 2011, p. 375). VB is therefore mainly focused on improvement rather than solely criticism (LePine and Van Dyne, 1998). Especially in today’s dynamic business, where firms tend to apply projects as the main organizational structure to cope with the growing need for flexibility and innovation, VB may be a pivotal aspect contributing to organizational effectiveness (LePine and Van Dyne, 1998). Astonishingly, although VB has been extensively analyzed in leading journals from the areas of psychology and organizational behavior, it has not been applied to the specific and increasingly important realm of project management. Projects, on the one hand, are a key source for new ideas, innovations, and improvements and on the other hand, VB

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seems to be essential to manage dynamic project environments (LePine and Van Dyne, 1998; Van Dyne and LePine, 1998).

We aim to address this research gap by analyzing a predictive model for project managers’ VB with contextual antecedents at the organizational level of analysis and individual-level factors as moderators. We follow calls by several leading voice researchers to explain VB through a combination of relevant situational and individual variables, thus acknowledging that individuals with distinctive personal characteristics and attitudes may respond differently to similar organizational context factors (Fuller et al., 2007; Morrison, 2011). Overall, the present study suggests that beneficial organizational measures related to innovation management as well as project management will more likely facilitate VB among individuals who are high in favorable organization-related individual factors, including a positive self-concept as an organization member (i.e., high organization-based self-esteem; Pierce et al., 1989) and a strong emotional attachment to the organization (i.e., affective organizational commitment; Meyer et al., 1993).

1.1. Voice behavior in a project and project portfolio environment

Project managers are a highly critical resource for project success (Ahsan et al., 2013; Geoghegan and Dulewicz, 2008). In today’s project-oriented business, project success is essential for overall business success (Midler, 1995; Söderlund, 2005). However, project failures are still a common phenomenon, especially in R&D or new product development portfolios or in dynamic and complex environments (Shepherd and Cardon, 2009; Shepherd et al., 2011). We suggest that project managers’ VB may play a significant role in explaining the success of individual projects and overall project portfolio success. Morrison and Milliken (2000) suggested in their framework that organizational silence, which may be seen as the opposite of voice (Morrison, 2011), leads to less effective organizational decision making as well as poor error detection and correction. In order to make appropriate decisions on a higher project portfolio level and to correct serious project situations, decision makers need information from project managers (Morrison, 2011). Moreover, because project environments are highly dynamic, project managers’ VB seems to be essential in order to enable organizations to constantly improve and further develop project management procedures (Detert and Burris, 2007; Van Dyne and LePine, 1998). Furthermore, project managers’ upward communication may positively influence the innovative potential of the overall project portfolio in a company. Additionally, project managers’ VB directed at project team members may have positive effects on decision making, improvement, and innovation as well (LePine and Van Dyne, 1998). We follow the notion of Morrison (2011) and understand VB as verbal expression directed upward to higher levels as well as directed to members of one’s team. Several studies showed that the supervisor’s behavior has a direct impact on the VB of employees or related constructs (e.g., Detert and Burris, 2007; Dutton et al., 1997; Morrison, 2011; Saunders et al., 1992). A high degree of project managers’ VB potentially fosters the establishment of a communicative project culture, in which problems and ideas will be addressed directly and openly.

However, the literature on employee silence provides us with many motives for project managers to withhold potentially important information even if they are generally willing to help the organization with improvement (Detert and Edmondson, 2011; Van Dyne et al., 2003; Grenny et al., 2007; Milliken et al., 2003; Pinder and Harlos, 2001). To voice or not to voice is a decision process in which employees need to balance risks and opportunities by analyzing negative and positive consequences (Detert and Burris, 2007). Employees consider if their improvement suggestions are likely to be effective and will have an impact (referred to as perceived efficacy) and additionally, if their behavior will likely induce negative personal outcomes (referred to as perceived safety of speaking up) (Morrison, 2011). Project managers tend to whitewash serious situations because they have concerns about negative personal consequences, such as negative career-related effects, negative performance appraisals, or harm to one’s image (Detert and Edmondson, 2011; Milliken et al., 2003). Athanassiadès (1973) found a positive relationship between the ambition to rise in the hierarchy and the tendency to distort upward communication. Seibert et al. (2001) found a negative relationship between VB and salary progression as well as promotions in the subsequent two years. In Detert and Edmondson’s (2011) study one interviewee stated that “to stop a project or say it is worthless would be a career ender” (p. 470). Such implicit beliefs about the risks of VB give reason for the assumption that negative project information may be withheld as long as possible. Consequently, many projects may fail even though the indications for failure are detected on time but project managers hesitate to communicate the information upward to higher-level decision makers.

1.2. Purpose and research question

Given the specific practical importance of VB in a project and project portfolio environment (Grenny et al., 2007) and keeping in mind the increasing importance of project and project portfolio success for the overall success of modern organizations, it seems to be critical to gain knowledge of antecedents of project managers’ VB in this context. Therefore, the main research purpose is to develop and analyze a predictive model for project managers’ VB. Since the body of research on employee voice is relatively mature, there are several studies analyzing the decision process determining whether to speak up or withhold information (Morrison, 2011). Some individuals show significantly more VB than others, even in the same organizational setting (Morrison, 2011). “Most studies focus exclusively on main effects, rather than analyzing interactional models, despite the likelihood that employee voice may be highest when individual differences lead some individuals to respond to favorable situational factors” (Fuller et al., 2007, p. 135). Researchers found that even if there are certain motives to voice (e.g., important information to share, desire to help the organization), often the opposite is the fact, since there are other factors overpowering these motives (Van...
Dyne et al., 2003; Milliken et al., 2003; Morrison and Milliken, 2000; Pinder and Harlos, 2001). Consistent with this notion and repeated calls for research on how contextual and person-level factors work in concert to affect voice (Fuller et al., 2007; LePine and Van Dyne, 1998; Morrison, 2011), we are applying a moderated model with contextual factors as independent and individual factors as moderator variables.

Our focus is on contextual antecedents from the area of innovation management and human resource management (HRM) in a project management context. Although VB has been analyzed on the group level (Morrison et al., 2011), concrete organizational-level measures have rarely been applied to predict employees’ VB (Morrison, 2011). However, without knowledge of such antecedents, it is difficult for researchers to “make recommendations regarding how to manage voice” in organizations (LePine and Van Dyne, 1998, p. 853). In order to analyze how individual factors influence project managers’ VB in response to the contextual factors, we apply a model in which organization-based self-esteem (OBSE), i.e., self-perceived competence and importance for the organization (Pierce et al., 1989), and affective organizational commitment (AOC), i.e., emotional attachment to as well as identification with the organization (Eisenberger et al., 1990), function as moderators. Overall, our set of hypotheses and results suggests that practical measures related to project and innovation management are critical to project managers’ VB, but may not effectively facilitate this outcome unless the organization also enhances project managers’ OBSE and their AOC. OBSE and AOC are two established and frequently studied constructs from the field of organizational psychology capturing two aspects of employees’ organization-related self-concept and their identification with the company, and both of them can be positively influenced by management (Meyer et al., 2002; Pierce et al., 1989).

OBSE has been successfully applied as a moderator in various studies (e.g., Jex and Elacqua, 1999; Pierce et al., 1993; Rank et al., 2009; Wiesenberg et al., 2007). The underlying notion is that individuals vary in their reaction to life experiences, including workplace conditions, based on their level of self-esteem (Korman, 1976; Pierce et al., 1989). We draw from self-consistency theory and self-verification theory to substantiate our predictions. Project managers high in OBSE may be more willing to react to supportive measures with extra effort such as VB in order to fulfill personal needs and achieve organizational outcomes consistent with their positive self-views (Korman, 1971) and to create a “social reality that verifies and confirms their self-conceptions” (Swann, 1983, p. 83). Additionally, we assume that project managers high in AOC may be more likely to exhibit VB in response to beneficial HRM and innovation management measures, because they feel greater loyalty to their organization and generally tend to exhibit greater extra effort as well as interest in their organization’s success (Fuller et al., 2006a; Mowday et al., 1979; Rhoades et al., 2001). We build on Hirschman’s (1970) theory of exit, voice, and loyalty, following his proposition that loyal individuals are higher in the willingness to tolerate the uncertainty of whether the organization will actually improve when they speak up. As Burris et al. (2008) noted, the construct described as “that special attachment to an organization known as loyalty” by Hirschman (1970, p. 77) is equal to AOC. Employees who are higher in AOC tend to react more strongly to dissatisfaction with enhanced VB in order to change the status quo (Hirschman, 1970; Morrison, 2011). The prior considerations lead to the following research question:

How do organization-based self-esteem and affective organizational commitment influence the association of specific innovation management and HRM measures with project managers’ voice behavior?

Our study contributes to research and practice in several ways. First, we aim to broaden voice research by applying organizational-level variables to predict employee VB. Moreover, we try to further advance organizational behavior research by applying relevant elements of the theories of self-consistency and self-verification to the specific context of project management. “Project managers are a special breed” (Pinto and Kharbanda, 1995, p. 41) considering that they face unique situations in terms of organizational embeddedness, fluctuating workloads, time pressure, and team dynamics (Zika-Viktorsson et al., 2006). Therefore, steering the behavior of project managers might significantly differ from those of other managers and is worthy of particular consideration. We combine different research streams, including relevant models and variables from organizational behavior, HRM, and project management. To our knowledge, there are only few studies applying OBSE and AOC in a project management context (Dwivedula and Bredillet, 2010; Shepherd et al., 2011) and we found no study analyzing the moderating effect of these constructs in this context. Project management researchers may take our results as a step to apply established theories from social and organizational psychology to explain the behavior of project managers. This may help to more deeply understand antecedents of project and project portfolio success. Moreover, since OBSE and AOC are moderately malleable constructs (Kam et al., 2013; Pierce et al., 1989) our results suggest that it is important to introduce management steps which promote the development of a healthy level of OBSE and AOC. Overall, our study suggests that factors related to project or innovation management need to be combined with measures advocated in the domain of organizational behavior to effectively enhance project managers’ VB. The effectiveness of management practices aiming to enhance employees’ VB seem to be dependent on individual-level variables and by neglecting these factors, potentially expensive measures may fail to yield the intended beneficial outcomes.

2. Theoretical framework and hypotheses

Fig. 1 depicts the underlying framework of this study. The moderated model suggests that project managers’ VB is influenced by one factor from innovation management and three factors stemming from the area of HRM: practices for the encouragement of ideas, a career perspective for project managers in project management, captured through the existence of a formal career
project managers' self-perceived value within the organization. Furthermore, we are using such as job performance than is global self-esteem (Pierce et al., 1989). In this paper, we understand OBSE as a measure of employees high in OBSE perceive themselves as important and organizational context. In general, we are building on the rationale by Mossholder et al. (2009), and therefore established a sound theoretical and empirical basis for the underlying notion of this framework.

2.1. The moderating effect of organization-based self-esteem

Pierce et al. (1989, p. 625) define OBSE as the reflection of the “self-perceived value that individuals have of themselves as organization members acting within an organizational context”. Employees high in OBSE perceive themselves as important and meaningful in their roles in the organization and as having successfully satisfied their needs in the organization (Pierce et al., 1989). In this paper, we understand OBSE as a measure of project managers’ self-perceived value within the organization as a project manager (Pierce et al., 1989). This specification is important, since project managers might execure more than one role in an organization and we are particularly addressing the project manager role. We are using OBSE since studies have shown that it is more strongly related to work-related criteria such as job performance than is global self-esteem (Pierce et al., 1989, 1993; Van Dyne et al., 2000). Furthermore, we are using OBSE since it “is framed within the same context as the ... behavioral response[s] under investigation” (Pierce et al., 1993, p. 271). Researchers have analyzed the moderating effect of OBSE on the relationship between various variables such as leadership styles, job conditions, and work stressors on the one hand and employee outcomes on the other hand (Ferris et al., 2010; Mossholder et al., 1981; Pierce et al., 1993; Rank et al., 2009), and therefore established a sound theoretical and empirical basis for the underlying notion of this framework. In general, we are building on the rationale by Mossholder et al. (1981) as well as Pierce et al. (1993) who assume that OBSE has similar moderating effects on certain relationships as actual employee ability. For example, Pierce et al. (1993) argued that employees with high ability have more opportunities to react upon problems with suggestions for improvement and are better in developing alternative procedures worth to be communicat-ed. These authors proposed and demonstrated that OBSE, similar to employee ability, positively influences employee responses to environmental conditions. Hence, we generally expect OBSE to moderate the relationship between the context factors included in our study (i.e., innovation management as well as HRM practices) and project managers’ VB.

With respect to our first predictor variable, namely idea encouragement, project managers’ VB may obviously be enhanced when there is organizational support for the development and articulation of ideas. According to Kock et al. (2015), encouragement of creative ideas refers to the managerial support and autonomy given to employees to enable them to pursue creative work. As these authors further stated, managerial support comprises encouragement to provide feedback, voice concerns and develop one’s creativity-related skills, while autonomy entails the provision of time and resources to pursue ideas and the freedom to engage in experimentation. Clearly, idea encouragement in general and these forms of support and autonomy in particular may be critical to project managers’ VB. Specifically, idea encouragement may reduce the risk of a “climate of silence” among employees (Morrison and Milliken, 2000) and facilitate a favorable “voice climate” (Morrison et al., 2011). It encourages employees to speak up and to communicate ideas and suggestions without fearing that this behavior is futile or induces negative personal consequences (Morrison and Milliken, 2000). Such idea encouraging practices signal that employees’ ideas are welcomed and will be taken seriously.

Nevertheless, we assume that the relationship between idea encouraging practices and VB is more positive for project managers with a high level of OBSE. According to self-consistency theory (Korman, 1971), individuals with high levels of self-esteem are motivated to show additional efforts “to maintain cognitive consistency with their high self-evaluations” (Ferris et al., 2010, p. 562). Hence, project managers high in OBSE will respond more strongly with VB to idea encouraging practices, in order to behave in concordance with their high self-expectations by producing innovative ideas that are worth being communicated to peers and superiors. In line with self-consistency theory, we suggest that the communication of creative ideas for innovative projects is not consistent with the perceived value and competence of project managers low in OBSE (Korman, 1971). Project managers low in self-esteem, who tend to be high in evaluation anxiety (Vermunt et al., 2001), may fear the additional demands created by idea encouragement.
practices and the potential negative assessments of ideas expressed by themselves (Seibert et al., 2001), hence not reacting with enhanced levels of voice. For example, if an organization offers creativity training workshops as part of its idea encouragement practices (Kock et al., 2015), individuals low in OBSE may fear that expectations regarding the quality of expressed ideas will rise and that their own ideas will be scrutinized. Therefore, it is unlikely that project managers low in OBSE will have the confidence to speak up with criticism of the status quo, even if the described organizational practices of idea encouragement are given.

Turning to self-verification theory, Swann describes self-verification processes in which individuals act as “agents who, after forming images of themselves, strive to bring social reality into harmony with these images” (1983, p. 60). Furthermore, people tend to self-verify, i.e., they seek to acquire feedback confirming their self-views (Swann, 1983; Swann et al., 1992), because they prefer predictability and coherence. Motivated by idea encouraging practices, project managers high in OBSE, who perceive themselves as especially competent in project management, may try to show their high competence by suggesting innovative improvements in project management procedures or by communicating ideas for new project endeavors. Thereby, they aim to acquire confirming feedback and positive appraisals from supervisors. Consistent with self-verification theory, those high in self-esteem wish to create and sustain high expectations of their own performance contributions in others, whereas those low in self-esteem wish to avoid such expectations. In particular, project managers low in OBSE may not expect positive feedback because they may doubt the value of their ideas.

H1. Organization-based self-esteem moderates the relationship between idea encouragement and project managers’ voice behavior such that idea encouragement will be more positively associated with voice behavior if organization-based self-esteem is high rather than low.

The second and third contextual variables included in our model, namely the existence of a formal career path and qualification opportunities in project management, enable project managers to strive for more managerial respect, job complexity, and a long-term perspective in project management, situational variables which are especially important for employees high in OBSE (Pierce et al., 1989). By advancing in hierarchical levels, project managers will be assigned to more important and challenging projects. Qualification programs enable project managers to raise their competence levels and to be prepared for successfully handling advanced project management tasks. An investigation of Fuller et al. (2006b) showed that a higher hierarchical position positively influences the felt responsibility for change which in turn led to more frequent VB. This finding indicates that project managers on higher hierarchical levels may tend to engage more strongly in VB. Consequently, the existence of a career path potentially positively influences the level of project managers’ VB in an organization. Moreover, project managers who take on extra efforts in order to become more qualified, e.g., by taking part in training programs, have a higher perceived efficacy to speak up. They are more likely to be successful with the change action (Withey and Cooper, 1989) and perceive more certainty that their efforts will lead to the intended outcome (Morrison, 2011). However, we assume that these relationships only appear for project managers with a high level of OBSE. The mere acquisition of additional tools and skills in project management will not lead to increased VB if the level of OBSE is too low to perceive oneself as competent enough to address challenging problems. According to self-consistency theory, employees “find most satisfying those jobs and task roles which are consistent with their self-cognitions” (Korman, 1976, p. 51). Hence, project managers high in OBSE, in contrast to their counterparts, may be motivated to show extra efforts such as VB to ascend in the hierarchy and manage complex and strategically important projects which require high levels of competence, thus verifying their self-perceived competence and importance (Korman, 1976). A higher position in the hierarchy along with an increasing complexity and importance of projects assigned to project managers would demonstrate their organizational value (Korman, 1971; Pierce et al., 1989). Therefore, we propose that increasing VB is a response to career and qualification opportunities for project managers high in OBSE.

Consistent with self-verification theory (Swann, 1983), we propose that project managers high in OBSE respond to career and qualification opportunities with higher work effort and VB in order to reach higher hierarchical positions and competence levels corresponding to a confirming social reality. Therefore, increasing efforts such as VB to acquire managerial respect is a way to develop an “opportunity structure” that verifies self-conceptions (Swann, 1983, p. 36). Without career and qualification opportunities, project managers high in OBSE might perceive their promotion rate as being too slow, thus not engaging in extra-role behaviors such as VB (McAllister and Bigley, 2002). In line with self-verification theory (Swann et al., 1992), we argue that a career path and qualification opportunities will not induce extra-role behaviors among project managers low in OBSE, because they may be satisfied with lower career stages with more limited competence requirements consistent with their self-image. Project managers with limited perceived efficacy to speak up may fear the potential negative career-related outcomes of VB such as negative performance appraisals and low promotion rates (Miliken et al., 2003). As Vermunt et al. (2001) noted, individuals with low self-esteem “have greater concern with how they are seen and evaluated by others” (p. 622), are more uncertain and have a higher need for social approval. In an organization with a career path and extensive training for project managers, those low in OBSE may fear that their capability and performance may be critically assessed. Hence, in contrast to their counterparts, project managers low in OBSE will not respond to career and qualification opportunities with more VB.

H2. Organization-based self-esteem moderates the relationship between a formal career path for project managers and project
managers’ voice behavior such that a formal career path will be more positively associated with voice behavior if organization-based self-esteem is high rather than low.

**H3.** Organization-based self-esteem moderates the relationship between qualification opportunities for project managers and project managers’ voice behavior such that qualification opportunities will be more positively associated with voice behavior if organization-based self-esteem is high rather than low.

An intensive collaboration between project managers and their projects fosters the ties between project teams and their members. According to Jonas et al. (2012), peer collaboration is defined as the extent and quality of mutual collaboration between different project managers (cross-project collaboration). As summarized by Jonas et al. (2012, p. 217), “the literature on management across multiple projects indicates that cross-project interdependencies might lead to more mutual support, effort, and communication between projects and therefore to a higher overall performance”. A supportive work group increases mutual trust. Trust is an important predictor of VB, not only regarding upward communication to one’s supervisor or boss (Morrison, 2011; Roberts and O’Reilly, 1974) but also regarding the honest communication between project teams. VB entails the risk to negatively influence interpersonal relationships with important others, like peers, through the challenge of the status quo (LePine and Van Dyne, 1998; Morrison, 2011). Project managers might hesitate to convey suggestions for improvement to other project managers because they assume that the recipient will feel personally offended by questioning the applied workplace practices in his or her project and thereby challenging his or her authority (Detert and Edmondson, 2011; Kish-Gephart et al., 2009). Mutual support and collaboration may increase the likelihood to communicate problems and ideas for improvement without harming others and being misunderstood. A strong collaboration goes along with opportunities to discuss project management related problems which may affect multiple projects.

Since project managers often face similar challenges during project work, important information from one project might as well be of importance for peers. Collaboration may foster the development of a coherent opinion regarding important issues and suggestions for improvement. Based on a coherent opinion, voicing project managers may develop higher certainty that suggestions for improvement are of significant importance to the overall success of the organization. As a consequence, peer collaboration may reduce the fear of conveying potential concerns to upper management, hence also stimulate VB. Nevertheless, we assume that the positive relationship between peer collaboration and VB depends on the level of OBSE. Project managers high in OBSE who care for social approval (Vermunt et al., 2001) may fear that their suggestions will not be taken seriously or will be rejected as inappropriate remarks (Morrison, 2011). In contrast, project managers high in OBSE will view the expression of voice as triggered by peer collaboration as an opportunity to self-verify (Swann et al., 1992) by standing out among the organization’s project managers as being particularly competent, helpful, and beneficial for the organization.

**H4.** Organization-based self-esteem moderates the relationship between peer collaboration among project managers and project managers’ voice behavior such that peer collaboration will be more positively associated with voice behavior if organization-based self-esteem is high rather than low.

### 2.2. The moderating effect of affective organizational commitment

A key assumption of voice theories is that VB is generally constructive with the central motive to help the organization (Van Dyne et al., 2003; Morrison, 2011). In the literature one can find several studies on VB supporting the notion that organizational commitment has a positive impact on VB (e.g., Fuller et al., 2006a; Withey and Cooper, 1989). Fuller et al. (2006a, p. 825) made the case for a positive link between organizational identification and voice by arguing that “individuals who exhibit voice behavior typically support organizational goals and devote effort to developing and expressing ways to overcome impediments to the achievement of those goals”. Therefore, we assume that project managers, who are more positive about their organization and care more about its success are more likely to respond with high levels of VB to HRM and innovation management practices in order to help the organization. We are applying the construct of AOC to capture this positive attitude toward the organization. AOC is defined as one’s emotional attachment to the organization (Eisenberger et al., 1990) and manifests itself in identification with and involvement in the organization (Allen and Meyer, 1990; Meyer et al., 1993, 2002; Mowday et al., 1979). People high in AOC enjoy the membership in the organization and share its values and goals (Allen and Meyer, 1990). We draw from the voice theory by Hirschman (1970) who proposed that individuals with “that special attachment to an organization known as loyalty” (p. 77) are more likely to choose voice rather than silence or exit. Burris et al. (2008) argued that Hirschman’s loyalty construct is highly similar to AOC. As Hirschman (1970) argued, “loyalty holds exit at bay and activates voice” (p. 78), because loyal employees are more confident that someone in the organization will act to improve matters in the organization in response to their voiced concerns and suggestions.

We are focusing on AOC rather than other foci and forms of commitment, because a meta-analysis (Meyer et al., 2002) demonstrated that AOC was more strongly and positively associated with job performance and OCB (organizational citizenship behavior, i.e., voluntary and prosocial types of employee performance that are not explicitly required and rewarded by the organization and contribute to its effectiveness;
Organ et al., 2006) than other types of commitment. Therefore, AOC may also be more critical to VB than other forms of commitment. Several authors (Becker, 1992; Becker and Kerman, 2003; Chen et al., 2002; Vandenbergh et al., 2004) argued that it is important to distinguish between different foci of commitment (e.g., to the organization, supervisor, coworkers). The present study includes commitment to the organization, because the focus of the commitment variable should be tailored to the relevant outcome variable (Becker, 1992). Commitment to the organization may be more relevant to VB, which may sometimes not be appreciated by supervisors (Seibert et al., 2001), but ultimately serve the organization.

A few studies have demonstrated that those high in AOC are more likely to engage in organizationally relevant citizenship behaviors such as extra effort (Becker and Kerman, 2003; Blakely et al., 2003; Chang et al., 2009) as well as proactive and innovative behaviors similar to employee voice (e.g., Chen and Aryee, 2007; Strauss et al., 2009). Moreover, AOC may function as a moderator between possible antecedents and such behavior. Prior research successfully identified significant moderating effects of AOC on relationships between different independent variables such as stressors and employee outcomes such as performance (Hunter and Thatcher, 2007). Furthermore, one previous study on VB revealed moderating effects of organizational identification, a variable similar to AOC, on the relationship between employees’ personal control and their VB (Tangirala and Ramanujam, 2008). In the context of the present study, we argue that employees high in AOC may tend to react with higher levels of VB to beneficial innovation management and HRM measures, because they feel greater loyalty to their organization and generally tend to exhibit greater extra effort. Moreover, they show higher effort to change the status quo when they feel dissatisfied with their environment (Morrison, 2011). Because of their greater involvement and commitment to the success of the organization as well as their propensity to expend extra effort (Allen and Meyer, 1990; Meyer et al., 1993), employees high in AOC may be likely to identify improvement opportunities and engage in VB, particularly when supportive practices are given. Furthermore, AOC is typically related to the experience of positive affect (Meyer et al., 1993), which facilitates several behavioral outcomes that may be relevant to psychological processes relevant to VB, including enhanced negotiation, creative problem-solving, cognitive flexibility, and persistence (Isen and Baron, 1991).

In his voice theory, Hirschman (1970) proposed that a combination of creativity and loyalty is needed for voice to occur, because “its effectiveness depends on the discovery of new ways of exerting influence” (p. 80). As Hirschman (1970) further argued, loyalty pushes organization members into a course of action requiring creativity, which their less loyal counterparts are unlikely to take. Therefore, affectively committed project managers may respond more strongly and positively to supportive innovation management practices by developing and articulating innovative suggestions for change. Triggered through creativity workshops and other idea encouraging measures (Kock et al., 2015), project managers with high levels of AOC will spend extra effort to develop innovative project ideas to support the organization to be competitive in the long term. In contrast, even when they are generally creative and have innovative ideas in their minds, project managers low in AOC with their short-term orientation may focus on their prescribed duties rather than engaging in VB.

H5. Affective organizational commitment moderates the relationship between idea encouragement and project managers’ voice behavior such that idea encouragement will be more positively associated with voice behavior if affective organizational commitment is high rather than low.

A formal career path especially developed and tailored to the needs of project managers illustrates a long-term perspective for project managers. Project managers are able to proactively plan their future promotion and advancement in the hierarchy of the organization and align their work efforts to their personal future career goals. Nevertheless, a career perspective may not be an attractive incentive to engage in extra-role behaviors among employees low in AOC. Because of the substantial relationship between low AOC and intention to quit as well as reduced job performance (Hunter and Thatcher, 2007; Vandenbergh et al., 2004), employees with little AOC may limit their efforts and adopt a short-term orientation, even if such a long-term career perspective is given. Employees with low levels of AOC may try to find a new employing organization. As Hirschman (1970) argued, organization members with little loyalty are more likely to choose exit or silence rather than voice, because they are less confident that matters will improve in the organization even when they speak up. Therefore, these employees may not take on the risks and additional efforts associated with VB, even if the existence of a career path may stimulate this behavior. On the contrary, project managers high in AOC may more strongly react to a career opportunity in project management with extra efforts such as VB in order to accelerate their career progression and to reach levels at which they receive additional responsibilities for important decisions and therefore are able to more significantly influence the performance of the organization. On higher hierarchical levels, they have more opportunities to help the organization to reach its goals.

H6. Affective organizational commitment moderates the relationship between a formal career path for project managers and project managers’ voice behavior such that a formal career path will be more positively associated with voice behavior if affective organizational commitment is high rather than low.

Qualification programs equip project managers with new and advanced tools and know-how in project management. Utilizing qualification opportunities enables project managers to more easily come up with ideas for improvement. However, if project managers are not interested in the success of the organization and do not share its goals due to low states of AOC (Hunter and Thatcher, 2007), they probably will not execute additional efforts such as VB in order to improve organizational functioning, even if they may have the necessary know-how and tools to do so. Moreover, the attendance of
qualification programs goes along with additional workloads which are not directly rewarded by the organization. For project managers low in AOC, this additional workload may lead to a further reduction of the willingness to show extra-role behaviors such as VB.

H7. Affective organizational commitment moderates the relationship between qualification opportunities for project managers and project managers’ voice behavior such that qualification opportunities will be more positively associated with voice behavior if affective organizational commitment is high rather than low.

Moreover, we assume that the level of AOC determines the strength with which peer collaboration is related to project managers’ VB. Project managers with low levels of AOC may not be willing to exhibit any extra efforts in pointing out suggestions for improvement for other projects, since they are less interested in helping the organization. This notion is accordant with the findings on the relationship between commitment and OCB (Chang et al., 2009), since positively influencing the outcome of other projects is primarily voluntary behavior which is not necessarily rewarded by the organization (Becker and Kernan, 2003; Blakely et al., 2003). Consequently, project managers high in AOC are more likely to utilize an intense collaboration to communicate suggestions for improvement to enhance the functioning of their own or other units and to ultimately help the organization reach its aims.

H8. Affective organizational commitment moderates the relationship between peer collaboration among project managers and project managers’ voice behavior such that peer collaboration will be more positively associated with voice behavior if affective organizational commitment is high rather than low.

3. Method

3.1. Sample

Since this study is part of a larger survey of the management of project portfolios, only firms running at least 20 simultaneous projects were included in the study. We applied a two-level model design, in which the dependent and moderator variables are on the level of the individual project manager (level 1) and the independent variables are on the organizational or business unit level (level 2). For each firm or business unit we collected questionnaire data from a project portfolio coordinator (e.g., portfolio director or head of a project management office), who had a good overview of the practices in project management, assessed the general HRM and innovation management measures within the firm and served as informant for the independent variables. As the second source representing the individual level we collected data from project managers within each firm, who assessed the dependent and moderator variables, as well as the individual controls. We aimed to acquire the best possible informant for each specific level of analysis (individual and firm). The two-informant design mitigates problems of common method bias that arise when the same person assesses independent and dependent variables (Podsakoff et al., 2003). Using a data base established in previous studies on project portfolio management and including nearly all established and larger companies in Germany, we contacted firms with a solicitation mailing explaining the study in general and sent a call for registration to potential informants, who were mainly located on higher hierarchical management levels. Only in few cases we contacted project managers directly.

After the first contact via mail we set up a team to systematically contact all possible participants by phone in order to emphasize the utility of participation and to encourage them to register for the study. All registered informants received an e-mail with a personal letter explaining the content and aim of the study, the multi-informant design, and the questionnaires. Nevertheless, in order to clarify questions and to increase the response rate, we needed to conduct regular follow-up phone calls. Since we gathered individual information from project managers, one of our main issues was to ensure anonymity of their responses and thus to enable honest assessments. As mentioned, in most cases, our contact person was a project portfolio coordinator on a higher hierarchical level whom we asked to forward the project manager questionnaires to multiple project managers active in their project portfolios and to urgently allude them to send back their filled questionnaires directly to the research team. This procedure prevented the coordinators from gaining access to the project managers’ individual information. A central incentive for participation in the study was the provision of a summary report (benchmark) of the firm’s own assessments compared to the overall sample. Project manager information was only included in this report in an aggregated way if at least three project managers participated, again to hinder managers from drawing conclusions concerning the project managers’ individual data. The final sample for this study comprises 154 firms with data on 618 project managers (1–15 per firm, average 4). The firms come from diverse industries (26% machine building and automotive, 20% electronics and IT, 17% finance, 10% construction and utilities, 5% pharmaceuticals and chemicals, 5% health care, 7% transport and logistics, and 10% others). The sample shows a reasonable spread in firm size with 34% having less than 500, 30% between 500 and 2000, and 36% more than 2.000 employees. Portfolio budget was less than 20 million € in 41%, between 20 and 100 million € in 32%, and higher than 100 million € in 27% of the portfolios. The median number of projects in the portfolio is 50.

3.2. Measurement

We used multi-item and, if available, established scales for the constructs. All items are anchored from 1, “strongly disagree”, to 7, “strongly agree”, and are listed in the Appendix A.

3.2.1. Dependent, moderator, and control variables (informant: project manager)

The items for OBSE were taken from Pierce et al. (1989). We used four of the ten suggested items and furthermore...
aligned them to the context of the project manager. For example, the original item “I am important around here” was changed to “As a project manager I am important in this organization”. We therefore explicitly analyzed the level of OBSE for the individual when adopting the project manager role. Despite the shortening and alignment of the scale we had a Cronbach’s Alpha of 0.87. The scale for AOC was taken from McGee and Ford (1987). These items have not been aligned to project management, since we wanted to capture the general emotional attachment to the organization and willingness to help the organization. We used five of the eight original items. One example item is “This organization has a great deal of personal meaning to me”. Two items were negatively worded and recoded prior to analysis. Cronbach’s Alpha was 0.77.

The items for the dependent construct VB were taken from Van Dyne and LePine (1998). We took three of the six original items. We followed Morrison’s (2011, p. 405) recommendation and only used items which “are clear exemplars of the constructs” and eliminated items which are “inconsistent with the generally agreed-upon definition of voice”. Here again, we aligned the items to the project management or project work context since we aimed to analyze the change-oriented behavior of project managers concerning project management concerns and procedures. Moreover, we needed to reword the item since it is a self-rating in our study. For example, the original item “My staff member speaks up in this group with ideas for new projects or changes in procedures” was changed to “As a project manager I speak up with ideas for new projects or changes in procedures”. Cronbach’s Alpha of this scale was 0.72.

In all models, we used two control variables in order to account for alternative explanations of VB. Several studies showed that both tenure and experience influence VB (Detert and Burris, 2007; Stamper and Van Dyne, 2001; Tangirala and Ramanujam, 2008). Nearly a third of the respondents of Milliken et al.’s (2003) qualitative study mentioned a lack of experience or tenure as a reason not to speak up about concerns and suggestions. Newer and less experienced employees may engage less in VB because they may perceive themselves as less credible and less competent to do so, whereas employees with longer tenure may feel more comfortable speaking up (Detert and Burris, 2007). Therefore, we integrated in our model not only organizational tenure but additionally a measure of project management experience as control variables. Project management experience was measured by the number of years that the informant has been active as a project manager.

3.2.2. Independent variables (informant: project portfolio coordinator)

The items for idea encouragement were taken from Kock et al. (2015), which they labeled as creative encouragement. We took four of the six suggested items. One example item is: “In order to promote the skills of our employees to generate ideas we develop and promote creativity of our employees (e.g., by creativity workshops)”. Cronbach’s Alpha of idea encouragement was 0.71. The scales for the career path and for qualification opportunities for project managers were built upon previous conceptual and qualitative studies like Hölzle (2008) and Bredin and Söderlund (2013). An example item of the scale measuring career path is: “There are clear career paths for project managers in our company”. The scale consists in total of seven items with a Cronbach’s Alpha of 0.87. Qualification opportunities was measured with four items. One example item is: “Our project managers regularly make use of special training for project management”. The scale has a Cronbach’s Alpha of 0.80. The items for peer collaboration were taken from Jonas et al. (2012) (they labeled the construct as cooperation quality). One example item is: “Our project teams provide one another with mutual support (in case of resource bottlenecks or content-related questions)”. The scale peer collaboration has a Cronbach’s Alpha of 0.71. All scales were validated by principal component analysis (PCA). We have factor loadings of 0.68 or higher for all items except for one. One inversely coded item of the construct AOC had a factor loading of 0.53. Nevertheless since this is an established scale, we decided not to delete the item.

Subsequently, we conducted a confirmatory factor analysis (CFA) for the established scales on the individual level and evaluated the results referring to the guidelines of Hu and Bentler (1998). We had a satisfactory model fit (Chi-Square(dfs) 51 = 249.06; Comparative Fit Index (CFI) = 0.93; Standardized Root Mean Squared Residual (SRMSR) = 0.036; Root Mean Squared Error of Approximation (RMSEA) = 0.078). This model had the best values, compared to a two-construct or one-construct alternative. Overall the measurement can be considered satisfactory.

4. Results

We conducted a moderated hierarchical regression in order to test the proposed interaction effects between the independent variables and OBSE as well as AOC. The interaction effects were tested referring to the procedures proposed by Aiken and West (1991). Table 1 summarizes the regression results. Model 1 shows the direct effects of the control variables, independent variables on the organizational level and moderator variables on the individual level. We found significant direct effects of project manager experience (b = 0.01; p < 0.05) and OBSE (b = 0.12; p < 0.01). None of the independent variables on the organizational level has a significant direct effect on VB. These results remain stable in the following models 2 to 9 including interaction effects. Each of the models 2 to 9 tests one interaction effect separately, by adding the respective multiplication term. Six of the eight proposed interaction effects are significant. We found positive and significant interactions of idea encouragement (b = 0.09; p < 0.01), career path (b = 0.05; p < 0.05), qualification opportunities (b = 0.06; p < 0.05), and peer collaboration (b = 0.10; p < 0.05) with OBSE. Considering that all of the regression weights obtained for the interaction terms are positive, these four predictor variables are more positively or less negatively related to VB for project managers high in OBSE. Two of the tested interaction effects with AOC as the moderator are significant: idea encouragement (b = 0.05; p < 0.05) and peer collaboration (b = 0.09; p < 0.01).
results indicate that idea encouragement and peer collaboration are more positively associated with VB for affectively committed project managers. Each of the significant interaction effects increased the explained within, between, and overall variance compared to model 1. We additionally calculated the regression analysis for pure moderation effects, without other independent variables integrated in the model. The moderation effects were as well significant, indicating robust results. We found no significant interaction effect between career path and AOC as well as qualification opportunities and AOC. Hence, we did not find support for Hypotheses H6 and H7.

In order to visualize the nature of the significant interaction effects we plotted the regression curves for high (mean plus one standard deviation) and low (mean minus one standard deviation) values of the moderators OBSE and AOC. The results are illustrated in Figs. 2 and 3.

Fig. 2 illustrates that Hypotheses H1 and H4 can be fully supported. We found a negative relationship of idea encouragement with VB as well as of peer collaboration with VB for project managers with low levels of OBSE and a positive relationship for project managers high in OBSE. Moreover, Fig. 2 illustrates that the general idea of Hypothesis H2 can be supported: the difference in the relationship between career path and VB for high and low values of OBSE is significant. However, the original idea of a positive association of a career path with VB is not given. Rather, a formal career path for project managers is negatively associated with project managers’ VB for individuals with low levels of OBSE. We found a significant negative slope for low levels of OBSE and no significant slope for high levels of OBSE. In conclusion, Hypothesis H2 is partially supported, because the relationship between career path and VB is more positive (in this case, less negative) when OBSE is high. However, it was not expected that a stronger and substantially negative relationship would emerge among individuals low in OBSE. Fig. 2 visualizes a similar result for qualification opportunities. Qualification opportunities yield a significant negative relationship with VB for individuals with low levels of OBSE and only a very weak positive but not significant relationship for project managers high in OBSE. Therefore, Hypothesis H3 is also partially supported, because the direction of the moderator effect was expected, although the stronger negative association for low OBSE individuals was not anticipated.

As illustrated in Fig. 3, the simple slopes for the interaction effect with AOC fully support our original idea proposed in Hypotheses H5 and H8. Idea encouragement and peer collaboration were positively associated with VB for affectively committed project managers and negatively related to VB for project managers low in AOC.

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<td>Idea encouragement × AOC</td>
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Random-Effects GLS regression; n = 618; 154 firms; unstandardized regression coefficients are reported; PM: Project Manager; OBSE: Organization-Based Self-Esteem; AOC: Affective Organizational Commitment.
† p < 0.10.
* p < 0.05.
** p < 0.01.
5. Discussion and conclusion

Because of a potentially positive effect of project managers’ VB on the success of project-oriented companies, the main purpose of this study was to investigate combined effects of situational and individual variables on project managers’ VB. We applied antecedents from the area of innovation management and HRM as well as the psychological constructs of OBSE and AOC as moderators. The results on the interaction effects with OBSE are in line with self-consistency (Korman, 1971, 1976) and self-verification (Swann, 1983; Swann et al., 1992) theory. The suggested organizational measures appear to motivate project managers with a high level of OBSE to exhibit VB to behave consistent with their self-perceived competence and value and to create a social reality that verifies their self-conceptions.

First, the interaction effect between idea encouragement and OBSE on VB was as expected. Project managers high in OBSE seem to respond to such practices by providing suggestions for improvement, whereas project managers low in OBSE who do not feel competent enough to communicate ideas seem to reduce their VB as a reaction to practices such as creativity workshops. Second, we found a positive and significant interaction effect of a

![Fig. 2. Simple slopes with OBSE as moderator.](image1)

![Fig. 3. Simple slopes with AOC as moderator.](image2)
career path and OBSE on project managers’ VB. This finding appears to be in accordance with self-consistency theory, i.e., individuals confronted with developmental opportunities seek to exhibit VB to behave consistent to their self-image (Ferris et al., 2010; Korman, 1971). However, the nature of the interaction effect displayed in Fig. 2 differed partially from our theory-driven expectations. The existence of a career path seems to lead to a decline in VB among project managers who are low in OBSE. This finding is consistent with the results of Seibert et al. (2001) that VB has a negative relationship with career progression. VB is a change-oriented behavior which may damage interpersonal relationships at work (Van Dyne and LePine, 1998), question the authority and competences of superiors, and “threaten, offend, or invoke defensiveness in authority figures” (Detert and Edmondson, 2011, p. 467), thereby leading to worse performance appraisals of the voicing employees and ultimately negatively impacting their career progression (Seibert et al., 2001). Hence, the existence of a formal career path, reflecting a concrete opportunity to achieve career progression, may enhance the perceived career-related risk of behaviors such as addressing problems and challenging procedures. In contrast, project managers with a high level of OBSE seem to perceive themselves as competent enough to show VB without fearing negative effects on their career progression.

We found a similar result for the interaction effect of qualification opportunities and OBSE on VB. Qualification programs go along with additional work which may go beyond the project managers’ regular duties (Gavino et al., 2012). Project managers’ willingness to voice which add to their high workloads but are not directly rewarded by the organization may be further reduced, if project managers are additionally expected to take part in training programs. Only project managers high in OBSE may perceive themselves as competent enough to cope with these additional workloads and at the same time show extra-role behaviors. Our set of findings regarding Hypotheses H2 and H3 is consistent with previous work emphasizing that individuals low in self-esteem tend to be higher in social anxiety, need for social approval, and sensitivity to evaluations by others (Vermunt et al., 2001). Given training programs or a career path involving regular performance assessments, project managers low in OBSE may fear that their performance will be evaluated more negatively and that they will receive less social approval if they engage in voice. Finally, the interaction effect between peer collaboration and OBSE on VB was as expected. For project managers with high levels of OBSE, peer collaboration had a positive relationship with VB, whereas we found a slightly negative relationship between these factors for project managers low in OBSE. The latter may fear the revelation of their project-related problems in front of peers. In contrast, project managers high in OBSE may use the strong collaboration as an opportunity to address and discuss their concerns and suggestions.

It is worth noting that our partially unexpected results on the interaction effect with OBSE with respect to Hypotheses H2 and H3 are in line with behavioral plasticity theory. According to behavioral plasticity theory, employees low in OBSE are more receptive to contextual influences and rely more on their work environments, whereas employees high in OBSE rely more on their skills to perform their jobs (Mossholder et al., 1981; Pierce et al., 1993). Following this notion, one may argue that employees low in OBSE react more strongly to organizational practices by changing their behavior, in this case by substantially reducing their VB, than their counterparts. This may explain the simple slopes of Hypotheses H2 and H3: Provided with concrete opportunities to realize career progressions and to enhance skill levels, project managers low in OBSE adopt a behavior which is minimizing career-related risks and additional efforts, i.e., they reduce VB, whereas their counterparts continue to rely on their skills, i.e., they continue to exhibit VB on a similar level. Furthermore, both of the independent variables included in the tests for Hypotheses H2 and H3 (i.e., the availability of a career path and qualification opportunities) may go along with more critical performance evaluations which are feared by project managers low in OBSE (Vermunt et al., 2001).

Our results further revealed that two of the suggested interaction effects with AOC as a moderator were significant and positive. As Hirschman (1970) proposed in his voice theory, organization members’ loyalty, which is highly similar to AOC (Burris et al., 2008), activates voice and reduces the likelihood of other outcomes such as exit and silence. AOC moderated the relationship between idea encouragement and VB as well as between peer collaboration and VB. Our results suggest that affectively committed project managers are motivated by idea encouraging practices and show innovative behaviors such as suggesting ideas for new projects or improvement, whereas their counterparts do not show VB since this contradicts their low identification with the long-term development of the organization. They may perceive creativity workshops as additional duties which are not rewarded directly but enhance their workload, thereby even leading to a reduction in voice behavior. This finding is consistent with Hirschman’s (1970) assertion that a combination of creative ideas and loyalty is needed for high levels of voice to occur. Moreover, affectively committed project managers identify themselves with the values and goals of the organization (Hunter and Thatcher, 2007; Wiener, 1982) and accordingly seem to use a strong collaboration to address and discuss suggestions for improvement or ideas, i.e., they support peers managing their projects effectively and ultimately help the organization to reach its goals (Allen and Meyer, 1990). We did not find a significant interaction effect between a career path and qualification opportunities with AOC. Possibly, affectively committed project managers, who are interested in a long-term development in the organization fear the career-related risks of VB, whereas project managers low in AOC seem not to fear these risks due to their lack of interest in a long-term career in this organization. Despite their strong identification with and attachment to the organization, affectively committed project managers seem not to show more VB in reaction to such developmental opportunities than their counterparts.

Our results provide multiple theoretical implications. We analyzed organizational measures as antecedents which have rarely been applied in connection to VB (Morrison, 2011). Our aim was to identify combined effects between these antecedents
and OBSE as well as AOC. Our results revealed in six of the eight suggested cases significant positive interaction effects, thereby we expand voice research and confirm arguments for the simultaneous analysis of contextual and individual voice predictors (Fuller et al., 2007; LePine and Van Dyne, 1998). We could explain our results with self-consistency theory, self-verification theory, and behavioral plasticity theory, thus demonstrating that these social psychological theories are relevant for the study of VB and in a project management context. Furthermore, our study expands project management research by applying constructs from organizational behavior such as OBSE and AOC. To our knowledge, these research streams have been very rarely combined.

For practitioners, a key implication of our results is that potentially expensive organizational practices established to motivate behaviors that are beneficial for the organization such as voice may not yield the intended outcomes due to the influence of employees’ psychological states on such relationships. Therefore, our results suggest that organizations should not only offer idea encouragement or foster peer collaboration, but also take measures for the enhancement of OBSE as well as AOC. Prior research has demonstrated that OBSE may be improved through measures such as enhancing job complexity as well as managerial respect toward employees or implementing an organic rather than mechanistic organizational design (Pierce et al., 1989, 1993). The strongest positive predictor of AOC identified in meta-analytic research (Meyer et al., 2002) was perceived organizational support, which is enhanced when an organization offers rewards, training, fairness of treatment, or other forms of care and respect for its employees (Rhoades and Eisenberger, 2002). It is important in future research to identify additional organizational experiences relevant to project managers which foster a healthy sense of OBSE and AOC beyond those identified in prior studies.

We need to point out some limitations of our study. First of all, we cannot prove causality in the suggested relationships without longitudinal data. One may argue that project managers who are high in OBSE and show VB may more strongly elicit supportive actions of organizations such as developmental opportunities or may more strongly seek to collaborate with peers in order to discuss concerns about applied procedures. We tried to substantiate and justify our predictions through the application of established theories. However, in order to further confirm our results, longitudinal or experimental research is needed. Moreover, we concentrated on four specific project management related contextual factors. Depending on the context, different organizational measures may be important to induce organizationally beneficial extra-role behaviors such as voice. Furthermore, although we gathered the data on independent and dependent variables from different respondent sources, we used the same informant for OBSE, AOC, and VB, which is potentially partially biasing our results. In the literature, employees’ VB has frequently been rated by the respective supervisor, although this may be difficult in a project management context, since project managers often lack a clearly defined supervisor or the supervisor is not able to sufficiently assess their behavior in the project manager role since projects are separated organizational units.

With respect to future research avenues, a few recent studies (e.g., Liu et al., 2010) have partitioned the voice construct into different components according to the communication target. For example, Liu et al. (2010) distinguished between speaking up to the supervisor and speaking out to coworkers and found that these two voice factors were predicted by different forms of commitment, namely identification with the supervisor versus identification with the group or organization. Therefore, future research may examine whether distinctive forms of voice are also predicted by different antecedents in a project management context. Finally, individual behaviors such as voice may not only be influenced by organizational structures and cultures, but also by the cultural distinctiveness of countries. For example, the Germanic Europe Cluster is relatively high in the cultural practices of assertiveness, future orientation and power distance (Szabo et al., 2002), factors potentially impacting on the general level of employees’ VB. To gain further knowledge about contextual influences on employee VB, cross-cultural studies in multiple countries may be fruitful.

**Conflict of interest statement**

The authors declare that there are no conflicts of interest regarding this paper.

**Appendix A**

Item wordings

**Project Manager's Voice Behavior** (Cronbach’s \( \alpha = 0.72 \)).

I develop and make recommendations concerning issues that affect project work.

I communicate my opinions about project work issues to others, even if their opinion is different and others disagree with me.

As a project manager I speak up with ideas for new projects or changes in procedures.

**Organization-Based Self-Esteem** (\( \alpha = 0.86 \)).

As a project manager I am important in this company.

As a project manager I am taken seriously in this company.

I am trusted as a project manager in this company.

**Affective Organizational Commitment** (\( \alpha = 0.77 \)).

This organization has a great deal of personal meaning to me.

I would be very happy to spend the rest of my career with this organization.

I really feel as if this organization’s problems are my own.

I do not feel a strong sense of belonging to this organization.

I do not feel emotionally attached to this organization.

**Career Path** (\( \alpha = 0.87 \)).

There are clear career paths for project managers in our company.

With increasing experience of project managers, they are assigned to more challenging and complex projects.
There are distinct “job titles” for project managers (e.g., project manager to senior project manager or project director) in our company, reflecting experience and competences. In higher career levels project managers have more budget and staff responsibility.

The average stay of project managers on a certain career level is comparable to that of managers in the line organization. Project managers have comparable salary levels as managers in the line organization.

The project manager career path is an adequate alternative to the career path in the line organization.

Qualification Opportunities ($\alpha = 0.80$).

Our project managers regularly make use of special training for project management. The training courses for project managers are aligned with their career stage.

Our project managers receive certifications in the training courses. Project managers make use of mentoring programs.

Peer Collaboration ($\alpha = 0.71$).

Our project teams provide one another with mutual support (in case of resource bottlenecks or content-related questions).

In case of problems project managers try to solve them quickly and directly among themselves.

Overall there is a very good collaboration between our projects.

Idea Encouragement ($\alpha = 0.71$).

In order to promote the skills of our employees to generate ideas…

… we develop and promote creativity of our employees (e.g., by creativity workshops).

… we encourage them to further develop their skills (e.g., by training, exchange with other experts).

… employees are allowed to pursue their own innovation projects in addition to their main duties.

… employees have adequate responsibility, resources, and freedom to work independently.

References


