Change-Supportive Intentions
in Complex Organizational Change Projects:
Application and Extension of the Theory of Planned Behavior

Dissertation

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List of Appended Studies

This dissertation is based on the work described in the following studies:

Study 1:

Straatmann, T., Kohnke, O., Hattrup, K., & Mueller, K. (2016). Assessing employees' reactions to organizational change: An integrative framework of change-specific and psychological factors. *The Journal of Applied Behavioral Science, 52*(3), 265-295. doi: 10.1177/0021886316655871

Study 2:

Straatmann, T., Nolte, J. K., & Seggewiss, B. J. (2018). Psychological processes linking organizational commitment and change-supportive intentions. *Personnel Review, 47*(2), 403-424. doi: 10.1108/PR-09-2016-0230

Study 3:

Straatmann, T., Rothenhöfer, L. M., Meier, A., & Mueller, K. (2018). A configurational perspective on the theory of planned behaviour to understand employees' change-supportive intentions. *Applied Psychology: An International Review, 67*(1), 91-135. doi: 10.1111/apps.12120

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Abstract

Especially in the context of complex organizational changes, employees' support is crucial for success because change-supportive behaviors of employees are required to compensate for higher uncertainties related to the implementation and the consequences of the changes. Yet, change support of employees is no automatic reaction. Seen from a psychological perspective change support represents a planned behavior of employees that is preceded by change-supportive intentions formed in reaction to the specific changes at hand. Hence, it is important to understand how employees react to organizational changes and how they form change-supportive intentions. However, research on employees' change reactions is a rather fragmented field that poses great challenges for researchers and practitioners striving to establish evidence-based approaches of change management. Therefore, the present research answers the call for more theoretical integration and refinement in the field of organizational research. Specifically, the present research makes use of the theory of planned behavior (TPB, Ajzen, 1991) which as is an established psychological theory for explaining human behaviors in social contexts. Based on this theoretical foundation, the present work systematically examines influences on the formation of change-supportive intentions from change-specific management factors (Study 1) and from personal factors (Study 2), as well as interrelational influences among the psychological determinants of change-supportive intentions (Study 3). Across all studies, the value of the TPB for understanding the formation of change-supportive intentions is supported. In addition, each study reveals unique insights. Revealing systematic linkages of change-specific management factors and psychological factors, Study 1 highlights the value of theoretical integration to promote evidence-based management. Study 2 finds affective organizational commitment to be an important predictor of change-supportive intentions with direct and indirect effects via the psychological determinants. Study 3 shows the relevance of a configurational perspective for more fully understanding the psychological processes involved in the formation of change-supportive intentions. Taken together, the appended studies contribute to the theoretical integration and refinement in change research and enable more systematic, well-founded diagnoses in change processes by providing scientific guidance for evidence-based change management.

Keywords: change management, organizational development, complex organizational change, change-supportive intentions, theory of planned behavior, evidence-based

Thesis supervisor: Prof. Dr. Karsten Müller

1.   General Introduction

Facing dynamic and competitive global market environments, as well as rapid technological developments, successful management of organizational change is a key requirement for organizations (e.g., Drzensky, Egold, & van Dick, 2012; Lüscher & Lewis, 2008). Organizations initiate and pursue change in order to sustain their market position, to develop new opportunities and to ensure long-term organizational survival (Kunisch, Bartunek, Mueller, & Huy, 2017). Despite the importance of successful organizational change (Armenakis & Harris, 2009; Fay & Lührmann, 2004), change implementation often leads to severe difficulties and high rates of failed organizational changes are reported (e.g., Beer & Nohria, 2000; Burnes, 2015; Smith, 2003; Taylor-Bianco & Schermerhorn, 2006).

Scholars suggested that in many cases failure of organizational changes is not primarily related to conceptual or technical aspects (e.g., Kotter & Cohen, 2002; Schein, 1999). Instead, employees' change-supportive behaviors have been identified as a critical factor to determining failure or success of organizational changes (Kim, Hornung, & Rousseau, 2011; Rafferty, Jimmieson, & Armenakis, 2013). Actually, George and Jones (2001) note that "organizations only change and act through their members" (p. 420). Thus, successful organizational changes require employees' support during the change process and cooperative performance in line with the new demands (Petrou, Demerouti, & Schaufeli, 2016).

The relevance of managing the human side of change (Bakari, Hunjra, & Niazi, 2017) becomes even more evident in the context of complex organizational changes. Complex organizational changes are characterized by the initiation and management of multiple change projects at the same time (Morin, Meyer, Bélanger, Boudrias, Gagné, & Parker, 2016). The increased complexity of such change initiatives is accompanied by a lower ability to foresee all consequences and challenges of the changes on the part of the organization. Hence, the success of complex changes hinges to an even larger extent on change support and active contributions of the employees which have to compensate for higher uncertainties (Morin et al., 2016). Accordingly, it is of high significance for researchers and practitioners to understand how employees react to complex organizational changes (e.g., Cummings & Worley, 2005; Oreg, Vakola & Armenakis, 2011) and how change support of employees can be fostered to increasing the likelihood of successful organizational changes (e.g., Kim et al., 2011).

Confronted with the challenges of selecting and implementing adequate interventions that effectively facilitate change support and ensure a successful process of change, change management has been described as highly demanding art (Woodman, 2014). While change management often relies on personal experiences of the change managers (Raineri, 2011), scholars recently highlight the relevance of evidence-based change management and the corresponding need for sound theoretical founded diagnosis (e.g., Armenakis, Bernerth, Pitts, & Walker, 2007; Khan et al., 2014; Vakola, 2013; Woodman, 2014). Yet, the implementation of evidence-based practices in change management is confronted with a research field which has been described as providing a "disintegrated and convoluted picture" (Oreg et al., 2011, p. 462).

The fragmented body of research on change management is symptomatic for many fields of organizational research. Organizational research is in many cases characterized by the introduction of new constructs and theories which has led to an "increasingly crowded conceptual marketplace" (Edwards, 2010, p. 616). While new theories and constructs can help to map out research fields at an early stage (Whetten, 1989), proliferation of theories and constructs can also impede scientific progress (Shaffer, DeGeest, & Li, 2016), and hinders collaboration between research and practice (Rousseau, 2007). To provide a better foundation for the development and transfer of accumulated scientific knowledge, theoretical integration and refinement are needed in organizational research (Cucina & McDaniel, 2016). Hence, it is no surprise that scholars in the area of change management have highlighted the need for comprehensive frameworks that help to integrate different streams of research (e.g., Neves, 2009; Oreg et al., 2011). Based on such comprehensive frameworks, systematic diagnostic instruments for change initiatives could be developed to support evidence-based approaches of change management.

Against the backdrop of current theory and construct proliferation in change research, it is important to build on insights from previous research and to make use of existing theories, instead of pursuing the development of new theories. Acknowledging the crucial role played by employees' change support, behavioral intentions have been identified as most proximal antecedents of employees' change-supportive behaviors (e.g., Jimmieson, Peach, & White, 2008; Rafferty et al., 2013). Indeed, research provided strong support for the high relevance of intentions in explaining and predicting behaviors (e.g., Armitage & Conner, 2001; Sheeran, 2002). Following Kim et al.'s (2011) definition of change-supportive behaviors, change-supportive intentions can be defined as an employee's intention to "actively participate in, facilitate and contribute to a planned change" (p. 1665). Aiming at

explaining change-supportive intentions of employees, the application of established psychological theories can provide a promising theoretical foundation for change management research. For example, Jimmieson et al. (2008), as well as Jimmieson, White, and Zajdlewicz (2009) successfully applied the established theory of planned behavior (TPB; Ajzen, 1991) to explain employees' intentions to engage in a specific organizational change project. The TPB (Ajzen, 1991) is one of the most influential psychological models explaining the formation of human behaviors in social contexts (Ajzen, 2011). With its widely-supported assumptions about the psychological determinants of behavioral intentions, the TPB has a great potential to add to the "little theoretically grounded discussion" (Weiner, 2009, p. 68) regarding employees' reactions to change.

Building on the TPB as a sound theoretical foundation for examining employees' change-supportive intentions provides a systematic integrative perspective and offers new promising lines of research on organizational changes. Specifically, the established and differentiated perspective of the TPB can help to tease apart and theoretically integrate previous research on psychological mechanisms influencing behavioral intentions and subsequent behaviors. Additional to insights into the psychological reactions of the employees, evidence-based change management needs to identify factors that influence the psychological processes to allow the selection and implementation of adequate interventions for fostering change support of employees in a given change context. From this perspective, the TPB also shows a great potential for evidence-based change management, as it is open for the inclusion of relevant background factors that influence the psychological reactions of employees (Ajzen, 1991).

Therefore, the present research project aims at providing a comprehensive and integrative perspective on the formation of employees' change-supportive intentions by building on the established psychological framework of the TPB (Ajzen, 1991). Answering calls for more integrative research and theory refinement in change management, the present work has a great potential to augment the existing understanding of change-supportive intentions. Specifically, the present research project contributes to the existing knowledge in four specific ways: First, the value of the TPB as a theoretical framework for understanding the formation of change-supportive intentions in the context of complex organizational changes will be examined. Second, a theoretical and empirical integration of change-specific management factors and psychological reactions of the employees based on the TPB is proposed as a major contribution to evidence-based change management. Third, the present research provides insights into the role of organizational commitment as a relevant personal

factor relating to the psychological reactions suggested by the TPB (Ajzen, 1991). And fourth, a configurational perspective on the formation of change-supportive intentions will provide insights into relative contributions, interactions, and configurations among psychological factors of the TPB (Ajzen, 1991) by applying variable-centered and case-centered methods. By explicating relevant factors and their relationships involved in the formation of employees' change-supportive intentions, the present research will provide guidance for identifying pathways for fostering change support among employees. Based on the extensions of the TPB provided in the three appended studies and the corresponding insights a more complete, systematic and practically meaningful understanding of factors and processes involved in the formation of change-supportive intentions can be developed. This new depth of knowledge about change-supportive intentions and its formation will help both researchers and practitioners to establish evidence-based practices in change management.

In the following sections, the TPB will be introduced as an established psychological theory to understanding the formation of change-supportive intentions. In the next step, relevant extensions of the TPB will be identified as what is needed to develop an integrative framework for evidence-based management. As an answer to the identified needs, the appended studies will be presented. In the general discussion, the results of the three studies will be reviewed and their conceptual and practical implications will be highlighted from an integrative perspective. Finally, limitations of the studies and implications for future research will be addressed.

1.1. Applying the TPB to the Formation of Change-Supportive Intentions

The goal of explaining and predicting employees' psychological and behavioral reactions to organizational changes has drawn a lot of research attention (Oreg et al., 2011). Dating back to at least Lewin's (1947) concept of "unfreezing" as starting point for successful organizational changes, researchers and practitioners have been concerned with establishing change support among employees. Since then a plethora of variables has been studied in relation to employees' change reactions (Oreg et al. 2011), and many strategies have been suggested to foster positive reactions of employees to organizational changes (Morin et al., 2016). However, these recommendations have been criticized for lacking a solid scientific basis (Weiner, 2009).

Also in search of explanations for the performance of behaviors, many social psychological theories proposed that intentions to perform the behavior are the most proximal antecedents of actual behaviors (Sheeran, 2002). Among these theories, the theory of planned behaviors (Ajzen, 1991) represents one of the most cited psychological theories in current research (Colquitt, Baer, Long, & Halvorsen-Ganepola, 2014) and has largely influenced our understanding of human behavior in social contexts (Ajzen, 2011). Following the TPB, human behavior does not occur at random, but in most cases behaviors are planned and intentionally performed (Ajzen, 2002a). Intentions represent "a person's readiness to perform a given behavior" (Ajzen, 2011, p. 1122), and reflect the level of motivation for the performance of a behavior (Ajzen, 1991). Accordingly, the TPB specifies intentions as "immediate antecedent of behavior" (Ajzen, 2002b, p. 107). A considerable amount of psychological research has supported the link of intentions to subsequent behaviors in various contexts (see meta-analyses: Armitage & Conner, 2001; McEachan et al., 2011; Sheeran, 2002).

While the assumptions of the TPB can also be applied to routine behaviors, the TPB is especially suited to explain behaviors in the context of novel situations and new behaviors which require careful deliberation (Ajzen, 2002b). Hence, the TPB has a great potential for studying change-supportive intentions of employees in the context of organizational changes. The relevance of intentions proposed by the TPB is also recognized in the larger area of change management research (e.g., Holt et al., 2007b; Oreg, 2003). For example, Armenakis et al. (1993) outline a similar causal process as suggested by the TPB when they describe a need to "influence beliefs, attitudes, intentions, and ultimately the behaviors of a change target" (p. 683) for the successful implementation of changes. In line with this notion, conceptualizations of change readiness often build on employees' behavioral intentions as a central defining element of change readiness (e.g., Armenakis et al., 1993; Bouckenooghe et al., 2009; Madsen et al., 2005), or as a central consequence of change readiness with close relations to subsequent behaviors (Rafferty et al., 2013). Given the conceptual similarities of change research and the TPB, research on change-supportive intentions can benefit from the empirically supported and detailed specification of the psychological processes underlying the formation of behavioral intentions provided by the TPB (Kautonen, van Gelderen, & Fink, 2015).

While intentions can be driven by many variables, the TPB at its core specifies three central determinants in the formation of behavioral intentions, namely the attitude toward the behavior of interest, the subjective norms related to the behavior, and the perceived

behavioral control (PBC; Ajzen, 1991). The first determinant, attitude toward the behavior refers to the overall evaluation (favorable or unfavorable) of the outcome resulting from the behavior (Ajzen, 1991; Ajzen & Fishbein, 1980). The second predictor, subjective norms denotes the perceived social pressure to perform the behavior (Ajzen, 1991; Ajzen & Fishbein, 1980). The third determinant, PBC, captures the degree to which carrying out the behavior is perceived as easy or difficult (Ajzen, 1991). Meta-analytic research provides strong evidence for the relevance of these determinants by showing that between 39 % (Armitage & Conner, 2001) and 44 % of the variation in intentions (McEachan et al., 2011) can be explained by considering their effects.

Following the TPB, change-supportive intentions are influenced by the three central determinants, in a way that more positive evaluations of the required changes (change-related attitude), stronger social pressure (change-related subjective norms), and greater perceived control of performing the required changes (change-related PBC) increase the intention of employees to perform change-supportive behaviors (Jimmieson et al., 2008). These comprehensive and systematic assumptions about the formation of change-supportive intentions find paralleling results in organizational change research. For example, parallel to the proposed effect of attitude in the TPB change research has frequently indicated that positive evaluations of the change – based on beliefs about the individual or organizational benefits – lead to more positive reactions to the change (e.g., Armenakis et al., 1993; Neves, 2009; Oreg, 2006). Regarding subjective norms, change research has for long recognized the importance of social dynamics for the interpretation of organizational change processes (e.g., Armenakis et al., 1993). For example, change research has shown influences from colleagues, opinion leaders, supervisors, and top management on employees' change reactions and behaviors (e.g., Armenakis & Bedeian, 1999; Lam & Schaubroeck, 2000; Neves, 2011; Self et al., 2007). Supporting the assumed role of PBC, change research has found employees' perceptions of control to help them in coping with organizational changes (e.g., Herold, Fedor, & Caldwell, 2007; Jimmieson, Terry, & Callan, 2004).

Besides this indirect support for the suitability of the TPB in explaining change-supportive intentions, Jimmieson et al. (2008) and Jimmieson et al. (2009) aimed to strengthen the theoretical foundation of change research and explicitly applied the TPB in organizational change contexts. Their research showed the value of psychological theories for deepening knowledge about employees' change reactions by reporting that substantial amounts of variance in change-supportive intentions can be explained by the TPB. Moreover, their research showed specific insights about the psychological determinants of employees'

intentions to support the change. For example, Jimmieson et al. (2008) found that the supportive intentions of employees involved in the relocation of a company were affected by attitude, subjective norms, and PBC. Studying a rebranding process, Jimmieson et al. (2009) showed attitude and subjective norms to take significant effects on supportive intentions.

Given the importance of employees' change-supportive behaviors for successful organizational changes (e.g., Cummings & Worley, 2005; George & Jones, 2001; Oreg et al., 2011; Vakola, 2014) and change-supportive intentions as their most proximal antecedents, the TPB provides insights into the psychological processes underlying the formation of change-supportive intentions that are of high relevance for both researchers and practitioners. However, behaviors required in organizational changes are in many cases more complex than single act behaviors, such as visiting the doctor, going sunbathing which much research on the TPB has focused on (Armitage & Conner, 2001; Kautonen et al., 2015; Sheeran, 2002). Indeed, both studies applying the TPB in organizational change contexts (Jimmieson et al., 2008; Jimmieson, et al., 2009) focused on organizational changes that usually require little change in work behaviors and internal work processes. Turning to complex changes in organizations in which employees are confronted with multiple simultaneous changes (Morin et al., 2016), changes will have stronger impacts on work behaviors and internal work process and, hence, require more effort on behalf of the employees. Acknowledging the increased relevance of employee support in the context of complex organizational change, there is still much to learn about the formation of change-supportive intentions when changes put on more complex and simultaneous demands.

1.2. Extending and Refining the TPB for Evidence-based Change Management

Previous research applying the TPB in organizational and specifically in change contexts is very promising for researchers and practitioners, as knowledge about the psychological reactions of employees based on the TPB can be useful for tailoring the focus of interventions in a way to match the needs of the employees and foster change-supportive intentions among them. Specifically, Ajzen (2006) highlight that interventions directed at either attitude, subjective norms, and/or PBC should have effects on behavioral intentions. However, the TPB does not provide specific insights into intervention-related variables as it focuses on the psychological reactions and the intention-behavior link. Hence, there is a need to extend and refine the TPB to provide a solid and comprehensive foundation for evidence-based management of organizational changes.

Two recent reviews in change research (Oreg et al., 2011; Rafferty et al., 2013) propose that change-specific management factors precede the psychological reactions of the employees. Change-specific management factors relate to the design and implementation of a specific organizational change process (Oreg et al., 2011). Moreover, change-specific management factors are subject to managerial decisions. Hence, they represent potential levers for change management to influence employees' reactions to change. Conceptualizing change-specific management factors as antecedents of the psychological reactions also fits with assumptions of the TPB, as Ajzen (1991; 2011) supposes that the effects of such "background variables" on intentions are mediated via attitude, subjective norms and PBC. Indeed, Jimmieson et al. (2008) were able to show that information and participation, as classical change management interventions, had indirect effects on intentions to engage in the change which were mediated via psychological determinants suggested by the TPB. Yet, more research extending the TPB is needed systematically examine how the psychological reactions of employees can be affected by other change-specific management variables.

In reviewing change management literature, Armenakis and Bedeian (1999) developed a taxonomy for distinguishing change-specific management variables. Specifically, the taxonomy (Armenakis & Bedeian, 1999) comprises three major categories: namely content factors ("what" is being changed), process factors ("how" change is implemented), and context factors (circumstances of the organizational environment). Indeed, this Content-Process-Context-framework (CPC-framework) has proven to be highly valuable in distinguishing relevant categories of change-specific management factors (e.g., Oreg et al., 2011). But research applying the CPC-framework often provides little differentiation regarding the psychological processes and how these are influenced by change-specific management factors (e.g., Self et al.; 2007; Walker, Armenakis, & Bernerth, 2007).

Hence, more research is needed which systematically and comprehensively links change-specific management factors as proposed by the CPC-framework (Armenakis & Bedeian, 1999) and psychological reactions as suggested by the TPB (Ajzen, 1991) with full consideration of both sides. Enhancing the understanding of how change-specific management factors from the different categories of the CPC-framework (Armenakis & Bedeian, 1999) affect the psychological processes of employees offers the opportunity to evaluate and optimize interventions to strengthen the desired psychological effects on employees' change support and paves the way for evidence-based change management approaches.

Besides the effects of change-specific management factors comprised in the CPC-framework (Armenakis & Bedeian, 1999), it is important for evidence-based change management to investigate how personal factors or change recipient characteristics exert their influence on the psychological variables suggested by the TPB. In line with the TPB (Ajzen, 1991; 2011; Conner & Armitage, 1998), change research assumes that personal factors predispose certain psychological change reactions of employees (Oreg et al., 2011). Building on the CPC-framework (Armenakis & Bedeian, 1999), employees' individual attributes (personal factors) were identified as a relevant fourth category determining employees' change reactions (Holt et al., 2007a; 2007b). The personal factors of the extended CPCP-framework entail variables such as negative and positive affectivity, status, age, or organizational commitment, which influence individuals' perceptions and psychological reactions to the change process (e.g., Caldwell, Herold, & Fedor, 2004; Holt et al., 2007a; 2007b; Judge, Thoresen, Pucik, & Welbourne, 1999). While many personal factors are rather stable by definition, such as personality traits or demographic variables, other personal factors lend themselves more readily for organizational interventions. Organizational commitment of the employees is one prominent personal factor in this respect, but more research is needed to better understand its role in the context of organizational changes (e.g., Oreg et al., 2011).

Affective commitment represents an "emotional attachment to the organization such that the strongly committed individual identifies with, is involved in, and enjoys membership in, the organization" (Allen & Meyer, 1990, p. 2). Particularly employees' affective commitment has been suggested to predispose positive change reactions of employees (Peccei et al., 2011). Based on their "emotional attachment to the organization" (Allen & Meyer, 1990, p. 2), higher affective commitment should render employees more willing to accept the changes and to exert more extra efforts for achieving successful changes (Mowday et al., 1979; Oreg et al., 2011). Despite its assumed relevance and some empirical studies on organizational commitment in the change context (e.g., Kwahk & Kim, 2008; Madsen et al., 2005), little is known about the specific influences of affective commitment on the psychological processes involved in the formation of change-supportive intentions.

In showing that attitude towards change serves as a partial mediator to the effect of organizational commitment on change resistance, Peccei et al. (2011) shed some first light on psychological effects of affective commitment. Building on the promising partial mediation via attitudinal determinants, research that considers subjective norms and PBC as additional psychological factors determining behavioral intentions and behaviors (Ajzen, 1991) might

deliver a more complete picture of the underlying processes linking organizational commitment and change-supportive intentions. If the psychological reactions of employees are contingent on employee characteristics, such as affective organizational commitment, which can be influenced by the organization before a specific change is initiated, this could represent an important resource in preparing for organizational changes. Hence, such knowledge will be of great relevance for evidence-based change management.

While systematic knowledge about the influencing and influenceable factors relating to the psychological determinants is of high value for change management, the design of effective interventions to foster change-supportive intentions largely depends on the adequate match to the relevant psychological determinants. Applying the TPB as theoretical framework for explaining change-supportive intentions, evidence-based change management needs clear indications which of the three psychological determinants proposed in the TPB to focus on for effectively strengthening change support among employees.

Previous research has found varying results regarding the relative importance of the three TPB determinants across different studies (e.g., see meta-analysis: Armitage & Conner, 2001; McEachan et al., 2011; or specific studies in the organizational context: Jimmieson et al., 2008, 2009; Van der Zee, Bakker, & Bakker, 2002). While varying contributions of the determinants in different contexts are already assumed by Ajzen (1991), previous research has largely focused on incremental contributions of attitudes, subjective norms, and PBC. This focus on direct effects neglects the potential for interdependencies among the three determinants (e.g., Eagly & Chaiken, 1993). Extending this narrow focus, a configurational perspective is particularly concerned about "understanding how distinct characteristics jointly cause an outcome" (Cambré, Fiss, & Marx, 2013, p. 312). Indeed, scholars have provided arguments and some empirical support for such interdependencies among the psychological determinants of the TPB (e.g., Conner & McMillan, 1999; Eagly & Chaiken, 1993). In an early study, Ryan (1982) already concluded that behavioral intentions are not a result of parallel, independent sets of variables, "but of a rather complex set of interdependencies" (p. 274). Yet, research considering interdependencies between the three determinants is rare.

Previous research examining interactions among the TPB mainly relied on correlations and regression analyses with interaction terms, while acknowledging the difficulty of detecting interactions and accurate relative contributions with these methods when it comes to more complex interdependencies (e.g., Ajzen, 2006; Ragin, 2008; Ryan, 1982). Recently case-centered methods have gained a lot of research interest (Berger, 2016; Rihoux, Álamos-Concha, Bol, Marx, & Rezsöhazy, 2013), as are suggested to be better

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suited for the detection of complex relationships (Ragin, 2008). Other than variable-centered research with its focus on additive, incremental effects, case-centered methods provide insights into configurations associated with the outcome of interest (Kent, 2009). For example, latent profile analysis (LPA; Collins & Lanza, 2010) is a popular case-centered method in psychological research (Tein, Coxe, & Cham, 2013) that "aims to recover hidden groups from observed data" (Oberski, 2016, p. 275). Similar to traditional cluster analysis, LPA attempts to classify distinct groups characterized by specific profiles of variables (Tein et al., 2013). Another increasingly recognized method is fuzzy set qualitative comparative analysis (fsQCA; Ragin, 1987, 2000, 2008) which aims to detect complex associations in relation to an outcome of interest (Rihoux et al., 2013). Different from Bayesian techniques, fsQCA builds on set-theory and has unique strengths in the detection of equifinal, and asymmetric configurations, as well as in determining relative importance, and the necessity or sufficiency of the conditions in the configurations (Ragin, 2008).

As knowledge about the contributions is essential to guide the design of interventions for influencing behavioral intentions (Ajzen, 2006), there is a clear need for more research applying a configurational perspective in studying change-supportive intentions. Moreover, a joint application of variable-centered and case-centered methods has a great potential to extend the configurational perspective of previous research (Rihoux, 2003), and to help more fully understanding the psychological processes involved in the formation of change-supportive intentions. Such research closely follows recent calls for considering more complex relationships among relevant variables in change management (Oreg et al., 2011).

2. The Presented Research

2.1. Overview

This dissertation is composed of three studies which make several contributions to the existing literature and practice of change management. Based on the crucial importance of employees' change support for successful organizational changes (Kim et al., 2011), the three appended studies aim at extending the theoretical foundation and understanding of employees' reactions to organizational changes. Instead of further increasing complexity in the field of change research, the studies' goal is to better understand the complexity of employees' reactions to organizational changes. Therefore, each study builds on the established TPB (Ajzen, 1991) for examining the psychological processes involved in the

formation of change-supportive intentions. Based on its widely supported theoretical framework, the TPB (Ajzen, 1991) provides a great potential for systematically differentiating employees' reactions to organizational changes and offers ample opportunity to compare and cross-validate results in relation to previous findings (Kautonen et al. 2015).
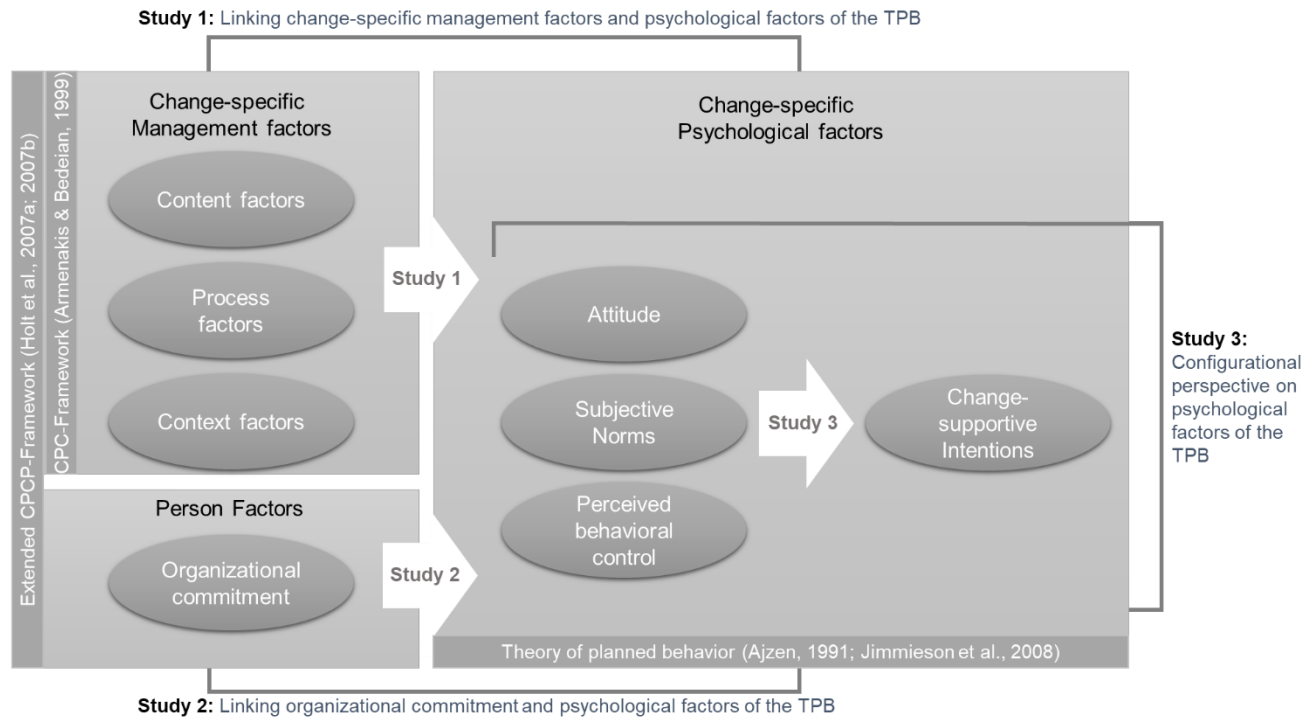
Figure 1: Summary of the appended studies.

While building on the established psychological framework of the TPB (Ajzen, 1991), each of the appended studies extends previous research and addresses unique research interests surrounding the formation of change-supportive intentions. Figure 1 depicts the relations and foci of the appended studies. Based on similar conceptualizations in recent reviews (Oreg et al., 2011; Rafferty et al., 2013), as well as on the TPB's openness for the inclusion of preceding background factors (Ajzen, 1991; 2011), change-specific management factors and personal factors are considered as antecedents of change-specific psychological reactions. Hence, effects of preceding factors on change-supportive intentions are assumed to be mediated via the psychological processes suggested by the TPB (Ajzen, 1991).

Study 1 aims at integrating the Content-Process-Context-framework (CPC-framework; Armenakis & Bedeian, 1999) and the established TPB (Ajzen, 1991) to systematically link factors that are subject to managerial decisions and psychological reactions of employees. Specifically, Study 1 examines the effects of perceived outcomes (content factor), participation and communication (process factors), as well as management

support (context factor) on change-related attitude, subjective norms, PBC and change-supportive intentions. Study 1 is conducted in the context of a post-merger integration process that qualifies as complex organizational change process. Integrating the CPC-framework and the TPB will deepen our understanding of the psychological effects evoked by organizational changes and related management interventions. These insights will help to identify specific levers for fostering change support by influencing psychological processes.

Study 2 follows the extended CPCP-framework (Holt et al., 2007a; 2007b) and focuses on organizational commitment as a relevant personal factor and its role in relation to the specific psychological reactions of employees in the context of organizational changes. Employees' commitment to their organization has been repeatedly suggested to predispose positive employee reactions to organizational changes (Oreg et al., 2011). Hence, Study 2 examines the effects of affective organizational commitment on change-related attitude, subjective norms, PBC and on change-supportive intentions. The context of Study 2 is characterized by ongoing, simultaneous change projects in a production facility, hence also representing a complex organizational change process. From the perspective of evidence-based change management, examining the role of organizational commitment based on the theoretical foundation of the TPB can provide insights and starting points for long-term and change-specific interventions to enhance change-supportive intentions.

Study 3 presents a focus on the psychological variables suggested by the TPB from a configurational perspective. Specifically, it analyzes the interdependencies among change-related attitude, subjective norms, PBC and change-supportive intentions from a configurational perspective by applying variable-centered as well as case-centered methods. The context of Study 3 is a city council of a mid-sized city undergoing a complex change process with many simultaneous change projects that represent a complex organizational change process. Jointly applying variable-centered and case-centered methods to studying interdependencies among the determinants of change-supportive intentions can provide new insights into the formation of change-supportive intentions, while also ensuring comparability to previous research. Hence, such research has a great potential for elucidating the circumstances of the varying results regarding the contributions of the three TPB determinants reported by previous research. Based on knowledge about relative contributions and interdependencies among change-related attitude, subjective norms, and PBC, evidence-based change management has the opportunity to define specific psychological foci of interventions for effectively strengthening change support.

Taken together, the three appended studies of this research project foster theoretical integration and refinement in change research, and strive for ameliorating the science-practice gap by providing a comprehensive picture of employees' change reactions and by showing the corresponding value for change management. The three studies examine external influences on the formation of change-supportive intentions from change-specific management factors (Study 1) and personal factors (Study 2), as well as interrelational influences among the psychological determinants of change-supportive intentions (Study 3). The extentions and refinements provided by the three appended studies help to advance our knowledge of the formation of change-supportive intentions. As such the insights of the three studies enable more systematic, well-founded diagnoses in change processes and provide scientific guidance for evidence-based change management.

2.2. Study 1: Assessing Employees' Reactions to Organizational Change: An Integrative Framework of Change-specific and Psychological Factors

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Abstract

The importance of diagnostic assessments during the design, implementation, and evaluation of change management processes is increasingly emphasized in the change management literature, and in practice. However, evidence-based change management is challenged by the rather fragmented state of research on employees' reactions to change. Hence, this study proposes a theory-based framework for the design of change surveys that includes and links concrete classes of change management variables with specific employee reactions to change. The framework is applied and tested in the context of organizational changes following an international merger project ($N = 240$). Structural equation modeling revealed a good fit of the framework to empirical data and demonstrated the usefulness for the systematic and comprehensive identification of relationships between change management variables and employees' specific reactions to the change process. The results underscore the potential of the framework to guide researchers and practitioners alike in analyzing and optimizing organizational change processes.

Keywords: organizational change, change-supportive intentions, change readiness, change management, participation, theory of planned behavior, merger

2.3. Study 2: Psychological Processes Linking Organizational Commitment and Change-Supportive Intentions

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Abstract

Purpose - With employees' support of organizational changes being vital for today's organizations, this study aimed to enhance the understanding of how organizational commitment is linked to change-supportive intentions. Based on the theory of planned behavior (TPB, Ajzen, 1991), mediated effects of affective organizational commitment were empirically tested to explore the underlying psychological processes.

Design/Methodology - The study was conducted in the context of a complex change process at a production facility of a large international manufacturing company ($N = 667$). Data from the change survey were analyzed employing Hayes' (2012) PROCESS macro.

Findings - The results showed that organizational commitment relates to change-supportive intentions directly and, as suggested by the TPB, its effects are mediated via change-related attitudes, subjective norms, and perceived behavioral control (PBC). Furthermore, results suggest additional effects of change recipients' age and occupational status.

Practical Implications - Employing the TPB offers specific insights for tailored interventions to create conditions facilitating organizational changes. The results indicate that commitment lays the ground for employees' change reactions. Moreover, the psychological processes suggested by the TPB serve as additional levers for explaining change-supportive intentions.

Originality/Value - The study provides valuable information on the relationship between commitment and change-supportive intentions. Specifically, affective organizational commitment is shown to be an important resource in times of change, as it relates to more positive psychological reactions to change.

Keywords: change-supportive intentions; change readiness; change management; organizational commitment; organizational change; theory of planned behavior

2.4. Study 3: A Configurational Perspective on the Theory of Planned Behaviour to Understand Employees' Change-Supportive Intentions

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Abstract

This study aims to deepen the understanding of the psychological processes involved in the formation of change-supportive intentions by adopting a configurational perspective. To investigate potential configurations in relevant psychological processes suggested by the theory of planned behaviour (Ajzen, 1991), classical linear analytic methods are supplemented by the application of two case-centred methods: latent profile analysis (LPA) and fuzzy set qualitative comparative analysis (fsQCA). The study uses data from two measurement times drawing on employees of a city council (t1: $N = 1,589$; t2: $N = 1,524$) undergoing complex and continuous organisational changes. While the case-centred results from LPA and fsQCA generally accord well with the results from regression analysis, they consistently highlight the relevance of configurational patterns. Specifically, LPA and fsQCA reveal that different combinations of change-related attitudes, subjective norms, and perceived behavioural control relate to the presence or absence of high supportive intentions. These results provide valuable insights for fostering employees' change-supportive intentions. Moreover, the present study demonstrates that case-centred analytical methods can essentially enrich research and theory-building in change management as well as in the field of behavioural intention formation in general.

Keywords: Change-supportive Intentions, Change reactions, Configurational Perspective, Fuzzy Set Qualitative Comparative Analysis, Latent Profile Analysis, Intention Formation, Theory of Planned Behaviour, Organizational Behaviour, Change Management, Germany

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3. General Discussion

Research on employees' change reactions has been criticized for the "little theoretically grounded discussion" (Weiner, 2009, p. 68), as well as for an increasing proliferation of constructs and parallel theories (e.g., Edwards, 2010; Oreg et al., 201). These circumstances hinder the development and application of systematic evidence-based change management approaches (e.g., Khan et al., 2014; Rousseau, 2007; Woodman, 2014). Hence, the goal of the present research is to further the theoretical integration and refinement of change research for a deeper and more comprehensive understanding of employees' change reactions and change-supportive intentions.

Based on a review of previous research and building on two established theoretical frameworks – the TPB (Ajzen, 1991) and the extended CPCP-framework (Holt et al., 2007a; 2007b) – specific research needs for the development of evidence-based change management approaches were identified which were addressed by three studies. Two studies extended the psychological perspective of the established TPB (Ajzen, 1991) by integrating conceptually preceding influences on psychological processes involved in the formation of change-supportive intentions. Specifically, the first study focused on influences from change-specific management variables, and the second study examined influences from affective organizational commitment as an influenceable personal factor. The third study applied a configurational perspective and focused on interdependencies among the psychological determinants of change-supportive intentions.

Overall, the results of the three appended studies demonstrate the applicability of the TPB as a well-founded psychological core of a comprehensive framework for understanding the formation of change-supportive intentions. Bridging various research streams the three studies help to clarify the role of change-specific management factors and affective organizational commitment as a personal factor for employees' psychological reactions to change. In sum, the three studies provide new insights into the formation of change-supportive intentions in complex organizational change projects and offer important implications both from theoretical and applied perspectives which will be discussed in the following.

3.1. Summary of Study-specific Results and Implications

One core question in change management is how change support can be fostered effectively to facilitate the success of the change project. **Study 1** took a specific focus on examining how change-specific management variables are linked to changes-supportive intentions. Specifically, Study 1 analyzed change-specific management variables representing each category from the CPC-framework (Armenakis & Bedeian, 1999) in relation to the psychological mechanisms influencing change-supportive intentions as proposed by the established TPB (Ajzen, 1991). Using data from 240 employees who completed a change survey designed to assist a change management team in a post-merger integration process of an Australian company that had been acquired by a large multinational company.

The results strongly supported the suggested theoretical integration of change-specific management factors and psychological factors, as the complete model showed a good fit to the data and allowed to explain 47% of the variance in change-supportive intentions. In comparison, Self et al. (2007) were able to explain 26% in the variance of change acceptance by focusing on managerial factors, and Jimmieson et al. (2008) explained 30% taking the psychological processes and two managerial factors into account. The amount of explained variance in Study 1 is also slightly above reported means of explained variances from meta-analyses on the TPB (e.g., Armitage & Conner, 2001: 39%; McEachan et al., 2011: 44%). Moreover, the effects of the management factors were completely mediated by the psychological determinants. From a conceptual perspective, these results provide compelling evidence for the applicability and usefulness of the suggested theoretical integration.

Of the psychological determinants, change-related subjective norms showed the strongest incremental effect on change-supportive intentions. Besides change-related subjective norms, change-related attitude showed a significant relation to change-supportive intentions, but not change-related PBC. These results are similar to previous research that also found partial contributions of the psychological determinants (e.g., Jimmieson et al., 2009; Van der Zee et al., 2002). Indeed, Ajzen (1991) already assumed that depending on the circumstances not all predictors have to play a significant role in the formation of behavioral intentions. In Study 1 a potential explanation for PBC's non-significant incremental relationship with changes-supportive intentions might be the early stage of the changes at the time of the survey. At this stage, the employees might not have had a specific understanding of what the project required them to change in their daily work. Hence, the results indicated that on a general level the TPB is applicable to complex change processes and also is

sensitive to situation-specific characteristics in regard to the contribution of the three determinants.

The change-specific management factors were selected to prominently represent each of the categories proposed in the CPC-framework (Armenakis & Bedeian, 1999), namely perceived outcomes (content factor), participation and communication (process factors), as well as management support (context factor) were chosen. Study 1 found systematic relationships between these managerial factors and the psychological reactions of employees. Perceived outcomes as content factor influenced all three psychological determinants, management support as context factor revealed significant relationships to change-related subjective norms and PBC. Of the process factors communication affected change-related PBC, while participation was related to subjective norms. These differential effects of management variables on the psychological variables were helpful for identifying levers to foster change-supportive intentions by targeting the desired psychological variables.

While some of these findings were already reported in change research, the systematic nature of the combined theoretical frameworks offered new insights by presenting the effects in the context of a systematic and comprehensive set of relevant variables. Hence, Study 1 provides valuable guidance for change research and proactive change management in the context of specific organizational changes. From a practical perspective, the link of managerial and psychological factors reveals a great usefulness for providing an understanding of employees' change reactions, and for guiding the specification and optimization of interventions in the active phase of facilitating the change implementation.

In addition to change-specific management factors, change research has suggested personal factors or so-called change-recipient characteristics as relevant antecedents of employees' reactions to change (Holt et al., 2007b; Oreg et al., 2011; Rafferty et al., 2013). As a personal factor that can be influenced by the organization, the role of employees' affective organizational commitment in predisposing positive psychological change reactions has often been discussed; yet, its role is still underspecified (Oreg et al., 2011; Peccei et al., 2011). Hence, the goal of **Study 2** was to shed more light on the psychological processes that link affective organizational commitment to change-supportive intentions by building on the TPB (Ajzen, 1991). Study 2 was conducted in the context of a complex change process at a production facility of a large international manufacturing company ($N = 667$).

The results of Study 2 supported the often proposed positive relationship of affective commitment and change-supportive intentions, even when controlling for other personal

factors such as age and organizational status (blue-collar vs. non-blue-collar employees). Adding the psychological variables suggested by the TPB increased the explained variance in change-supportive intentions from 25% to 58%. Again, these results highlight the value of considering change-specific psychological determinants for explaining change-supportive intentions. Furthermore, the results of Study 2 indicate that affective commitment lays the ground for positive psychological reactions to organizational changes, as affective commitment showed significant relations to change-related attitude, subjective norms and PBC. While each of the psychological determinants was significantly related to change-supportive intentions, the mediation of affective commitment was partial as affective commitment still showed an additional direct effect on employees' change-supportive intentions. Hence, the results suggest that affective commitment as a personal factor not only influences the psychological determinants, but also relates to change-supportive intentions in a way that is not directly accounted for by the processes suggested in the TPB (Ajzen, 1991).

Additional support for the influences of personal factors was found as change recipients' occupational status and age showed supplementing relationships to the psychological determinants. In addition, age had a small, but significant negative effect on change-supportive intentions. Furthermore, explorative analysis based on LPA and multi-group comparisons revealed no difference in the psychological processes for employees that were differently affected by the complex change process which points to a stability of the suggested psychological mechanisms.

From a scientific perspective, Study 2 lends support to the applicability of the TPB by showing its high relevance for explaining change-supportive intentions accompanied by a stability of the psychological processes for different degrees of change impact. Moreover, affective commitment as a preceding personal factor was meaningfully related to the psychological processes suggested by the TPB. Yet, the partial mediation found suggests that additional psychological processes besides change-related attitude, subjective norms, and PBC may play a role in the formation of change-supportive intentions. Viewed from an applied perspective the results offer change-specific and more long-term opportunities for managing change support. While insights in the change-specific psychological reaction can be used to design interventions for the specific change process at hand, fostering organizational commitment can serve as long-term approach to build up valuable resources for organizations in times of change. In addition, considering change-recipient characteristics, such as age or organizational status, proved to be helpful for identifying and targeting specific needs of certain employee groups to foster change-supportive intentions.

While knowledge about how the change-specific psychological reactions are influenced is essential for evidence-based change management, also indications about the contribution of the different psychological determinants are needed for planning interventions that effectively and efficiently foster change support. The psychological determinants of behavioral intentions proposed in the TPB are widely supported (Armitage & Conner, 2001; McEachan et al., 2011). Yet, research on the TPB finds mixed results regarding the relative importance of attitudes, subjective norms, and PBC even within the specific context of organizational research (e.g., Jimmieson et al., 2008; 2009; Van der Zee et al., 2002). While Ajzen (1991) conceded that the relevance of the psychological determinants may vary across situations, scholars have suggested that interactions between the determinants of the TPB may be central to understanding the formation of intentions (Eagly & Chaiken, 1993). Therefore, the goal of **Study 3** was to deepen the understanding of how change-supportive intentions are formed by adopting a configurational perspective to investigate potentially more complex relationships among the relevant psychological processes suggested by the TPB (Ajzen, 1991). Study 3 was based on data from two measurement times drawing on employees of a city council (t1: $N = 1,589$; t2: $N = 1,524$) undergoing complex and continuous organizational changes. As classical linear analytic methods have acknowledged weaknesses in detecting configurational relationships (Fiss, 2007; Ragin, 2008; Ryan, 1982; Skarmeas, Leonidou, & Saridakis, 2014), Study 3 employed two case-centered methods: latent profile analysis (LPA) and fuzzy set qualitative comparative analysis (fsQCA) to supplement and compare the results of regression analysis.

On a general level, the variable-centered and case-centered results largely supported the utility of the TPB for explaining the formation of change-supportive intentions. At both measurement times, the regression analysis showed that high amounts of variance were explained in change-supportive intentions (t1: $R^2=43\%$; t2: $R^2=46\%$). Similarly, the case-centered results supported the TPB by showing high class probabilities (in the case of LPA), as well as meaningful consistencies and coverages (in the case of fsQCA) obtained for solutions based on the three determinants. Moreover, the relevance of configurational patterns among the psychological determinants can be found in the results of case-centered results from LPA and fsQCA, and even in the results of variable-centered regression analysis. Even though the interaction terms found in the regression at t1 are small, they are statistically significant and clearly extend previous research in the context of organizational changes (e.g., Jimmieson et al., 2008). In addition, the case-centered methods further explicate the relevance and nature of interdependencies among the psychological determinants.

Specifically, LPA was able to uncover groups with unique psychological profiles of change-related attitude, subjective norms, and PBC that were related to different degrees of change-supportive intentions. These psychological profiles were relatively similar in the two measured phases of the complex change process. Interestingly, the groups resembled descriptions commonly referred to in applied change literature (e.g., Battilana, & Casciaro, 2013; Judson, 1991), such as acceptance (supporters), indifference (fence-sitters), passive resistance, and active resistance (resisters). Additional to providing empirical support for these descriptions, the LPA results of Study 3 shed first light on the psychological profiles of these groups and provide guidance for identifying effective levers to foster change-support.

While the LPA results build on all determinants and do not provide indications of their relative contributions, fsQCA delivered more information on specific configurations related to the presence and absence of high change-supportive intentions. In line with previous research (e.g., Oreg et al., 2011), as well as the results of regression analysis, fsQCA results pointed to a high relevance of change-related attitude in the formation of change-supportive intentions. Extending previous research, fsQCA results demonstrated that the effort of supporting the changes needs a stronger backdrop than merely having a positive attitude towards the changes. Specifically, "socially supported, positive attitude" or a "control confident, positive attitude" were revealed as two important, equifinal configurations associated with high change-supportive intentions. In addition, fsQCA found that a lack of positive change-related attitude gained more momentum, as – in the course of the change process – a lacking favorable attitude became the single sufficient factor in determining a lack of high change-supportive intentions.

Taken together, the results from Study 3 emphasize the importance of considering configurational patterns in the formation of change-supportive intentions. Clearly extending previous research, the joint application of variable-centered and case-centered methods uncovered configurational, asymmetric, and equifinal effects involved in the formation of change-supportive intentions. In addition, the multi-time setting allowed to analyze the stability of the effects and to compare the results at different stages in the change process. From an academic perspective, Study 3 has implications not only for change research, but also at the more general level of research on the TPB. First, TPB determinants may generally influence each other's effects, or must even co-exist for high behavioral intentions to occur. Second, the study showed that case-centered analytical methods can essentially enrich research and theory-building in change management, as well as in the more general field of behavioral intention formation. For organizational change management, these findings imply

that at least two or all of the TPB determinants should be addressed in order to effectively foster change-supportive intentions. Hence, the present study cautions researchers and practitioners to focus only on one factor for interventions aimed at increasing change support (e.g., the factor with the strongest beta weight in regression analysis). Moreover, the equifinal results offer strategic design choices for change managers on specifying interventions to foster change support.

3.2. General Implications for Research

The three appended studies of the present research project shed new light on the formation of employees' change-supportive intentions in the context of complex organizational changes. While each study has its own specific and clear focus, all studies contribute to building a more complete picture of how employees react to change and how change-supportive intentions are formed.

Foremost, the three studies highlight the value of applying an established psychological theory for developing a systematic understanding of employees' reactions in the context of complex organizational change. In all three studies, the psychological determinants suggested by the TPB explained substantial amounts of variance in change-supportive intentions. In Study 1 and Study 2 applying the psychological mechanisms suggested by the TPB (Ajzen, 1991) revealed important insights for our understanding of how change-specific management factors from the CPC-framework (Armenakis & Bedeian, 1999) and dynamic personal factors such as affective organizational commitment translate to change-supportive intentions. Serving as meaningful mediators for preceding background variables the psychological determinants provided a fruitful basis for successfully advancing the theoretical integration in change research.

Together the results of the three appended studies provide a stringent foundation for the definition of a strata model of change support as comprehensive, integrative framework for evidence-based change management (see Figure 2). Aiming at explaining the formation of change support, the strata model specifies the stratum of intention as most proximal psychological level preceding the behavioral stratum of change support. Hence, the strata model reflects recent research that suggests change-supportive intentions as important preceding psychological state of change-supportive behaviors (e.g., Jimmieson et al., 2008; Kim et al., 2011; Rafferty et al., 2013). Building on the differentiated perspective of the TPB (Ajzen, 1991), the strata model proposes two layers of psychological reactions – the stratum

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of intention which is dependent on the stratum of psychological determinants. All appended studies showed the value of such a differentiated perspective for understanding the formation of change-supportive intentions. Supporting assumptions of the TPB (Ajzen, 1991), change-related attitude, subjective norms and PBC were found to be relevant for change-supportive intentions across variable-centered and case-centered methods. Centering around the TPB as psychological core, the strata model integrates previous research on the extended CPCP-framework (Holt et al., 2007a; 2007b) in the next layer of interventional factors. In line with recent reviews (Oreg et al., 2011; Rafferty et al., 2013) and the supporting empirical results of Study 1 and Study 2, the strata model distinguishes situational influences – represented by change-specific management variables following the CPC-framework (Armenakis & Bedeian, 1999) – on the psychological reactions, and personal influences from dynamic person-specific variables, such as organizational commitment.
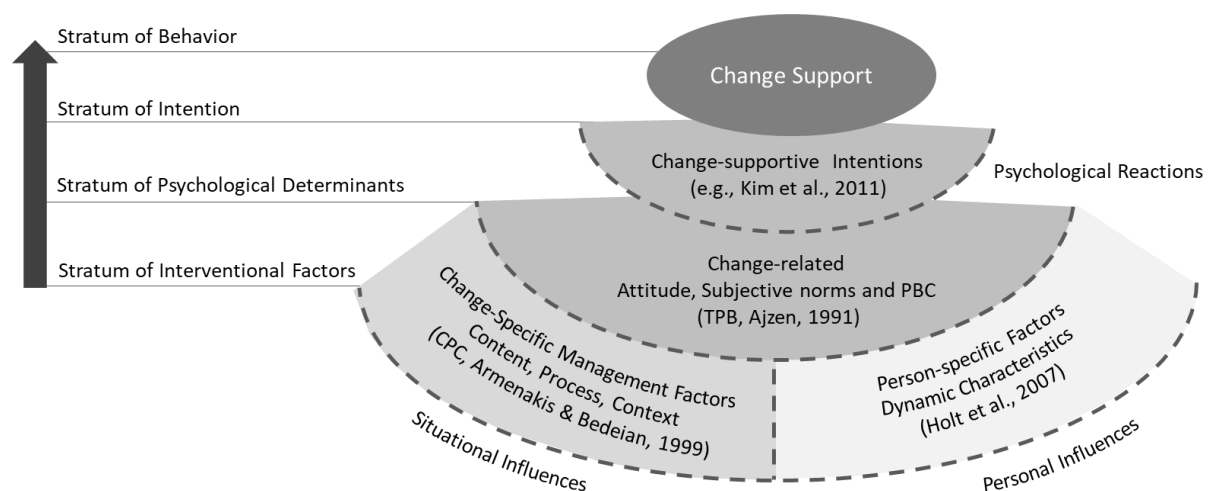
Figure 2: Core strata of change support.

Summarizing the findings in form of the strata model of change support offers a new integrative and comprehensive perspective for change research and evidence-based change management. The strata model of change support systematically integrates psychological and management perspectives and bridges theoretical assumptions of the TPB (Ajzen, 1991) and of the CPCP-framework (Holt et al., 2007a, 2007b). As such the strata model provides a general structure for mapping out the convoluted research field of change reactions (Kim et al., 2011; Oreg et al., 2011). While the strata model of change support integrates established theoretical frameworks, it also is generally open for the specification of additional theoretical pathways or for the inclusion of other variables than the ones used in the three appended studies. Hence, the strata model of change support can serve as a guiding framework for both

practitioners and researchers in looking at previous research findings and in setting out new research on employees' change reactions.

Similarly, the strata model of change support can structure the discussion of the more fine-grained implications from the three appended studies. Specifically, all appended studies provide valuable and differentiated insights into the strata of intention and of psychological determinants. Specifically, a high relevance of change-related attitude for change-supportive intentions was found across all studies, which is also in line with change research (Oreg et al., 2011) and closely parallels more general research on intention formation (Armitage & Conner, 2001). Change-related subjective norms and PBC showed more nuanced and intricate patterns across the three studies. Viewed across the appended studies, change-related PBC seems to be more relevant in later stages of change processes – when the employees already have a substantial understanding of the changes required from them in their daily work. For example, change-related PBC was not significantly related to change-supportive intentions in Study 1, in which the change survey was administered earlier in the change process. In Study 2 and Study 3 the change processes were in later stages and change-related PBC showed significant moderate relationships with change-supportive intentions.

Turning to change-related subjective norms the observed pattern in the three studies and previous research gets more complicated. In sum, the results on the incremental contribution of change-related subjective norms might indicate that the perception of significant others and the related social pressure are more relevant in earlier stages of the change process. In Study 1 change-related subjective norms emerged as the strongest determinant of change-supportive intention. This is similar to the studies done by Jimmieson et al. which also were conducted in earlier stages of the change, as the relocation process was in the work design planning phase (2008) and the rebranding process was initiated only two months before the survey was administered (2009). This conclusion about a higher relevance of change-related subjective norms in earlier stages would also be in line with research showing that employees turn to credible social sources particularly in new or uncertain situations (e.g., Lam & Schaubroeck, 2000; Lines, 2005).

Yet, applying case-centered methods in Study 3 revealed a consistent relevance of change-related subjective norms for changes-supportive intentions across both measurement times. Following the case-centered results from LPA and fsQCA, the effect of external social standards is catalyzed when combined with factors internal to the individual (i.e., a positive attitude to or a perceived ease in performing the required behaviors). Similar to these configurational findings, Ajzen (1991) argued that in some cases the incremental

contributions of perceived social pressure might be overshadowed by personal considerations (i.e., attitude or PBC). This might be specifically true for the traditional focus on variable-centered methods that have acknowledged weakness in detecting more complex relationships (e.g., Fiss, 2007; Ragin, 2008; Ryan, 1982). Taking the assumption about the generally increased importance of subjective norms in the organizational context (e.g., Jimmieson et al., 2009), the significance of novel or uncertain situations (e.g, Lam & Schaubroeck, 2000), and the consistent relevance of subjective norms revealed by Study 3 into account, the overall conclusion is that the effect of subjective norms is more obvious and readily detected in earlier stages of the change processes. At later stages, the effect of subjective norms might be overshadowed by stronger effects of personal considerations relating to change-related attitude or to PBC.

These results highlight the importance of being aware of and empirically testing potential configurations among the psychological determinants suggested by the TPB. According to the results of Study 3, the psychological determinants don't unfold their effect in isolation, but rather become effective in more complex configurations. Indeed, the configurational perspective of Study 3 consistently revealed two equifinal pathways, namely "socially supported, positive attitude" and "control confident, positive attitude", required for the occurrence of high change-supportive intentions. These configurational effects with the determinants serving as boundary conditions for each other might have been overlooked by the traditional focus on additive, incremental effects. As regression analyses often struggle to identify complex interdependencies or configurations (e.g., Ragin, 2008), the joint application of variable-centered and case-centered methods is also promising for further research on the formation of change-supportive intentions and on the TPB in other contexts.

Besides the relevance of a configurational perspective on the psychological processes, the conclusions about differentiated contributions of the TPB determinants in different stages of a change process substantially enriches change research. Indeed, recent research has highlighted the conceptual relevance of time and argued for time as a central variable for understanding change in organizations (Kunisch et al., 2017). Moreover, different phases of change have already been suggested by Lewin (1947) with his focus on the unfreezing phase. Likewise, Armenakis and Bedeian (1999) build on the Social Learning Theory (Bandura, 1986) and propose three stages of change processes, namely, readiness, adoption, and institutionalization. The three stages described by Armenakis and Bedeian (1999) summarize previous process theories and present assumptions about change recipients' reactions that fit with the findings and conclusions drawn from the three appended studies.

Specifically, during the readiness stage, change recipients progress through anticipation and potential denial based on rumors and first official information. Describing social sense-making tendencies the first stage shows a good match to the stronger effects of subjective norms in studies that were conducted in earlier stages of organizational changes (e.g., Jimmieson et al., 2008; 2009; Study 1 of the present research project). During the adaption stage, exploration of the behaviors associated with the changes is most relevant for change recipients. Both Study 2 and Study 3 reporting a higher relevance of PBC were performed while the changes were already ongoing. Hence, these findings about an increased relevance of PBC represent a good match to the assumption of stage 2 that employees start to explore new behaviors related to the changes. Finally, during the stage of institutionalization, the change recipients build up a commitment to the changes and evaluate its consequences. Matching this stage, the second measurement time of Study 3 revealed a stronger importance of a lacking positive attitude as an evaluative component of the TPB (Ajzen, 1991).

While the present results show a good fit to the proposed stages of change (Armenakis & Bedeian, 1999), more differentiated research at the strata of intentions and of the psychological determinants is needed that explicitly considers different stages. Combining time and psychological perspectives might provide an even better understanding of employees' psychological processes and may also identify crucial time windows during organizational changes (Kunisch et al., 2017). For example, Tyre and Orlikowski (1994) were able to show that employees were open to learning the introduced new technology only during a short period after the implementation. The integrative strata model of change support in combination with the stages of change (Armenakis & Bedeian, 1999) can serve as foundation for the empirical analysis of employees' reactions change in the course of change.

Extending the focus beyond psychological reactions to a specific change, the strata of interventional factors conceptualizes situational and personal influences on the formation of change-supportive intentions. Applying the CPC-framework (Armenakis & Bedeian, 1999) to systematically examining change-specific management factors, Study 1 provided insights on how change management interventions take their influence on psychological processes of the employees. Considering influences from personal factors, Study 2 found support for the often suggested relevance of affective organizational commitment for positive psychological reactions to change (e.g., Oreg et al., 2011). By revealing significant and systematic influences of situational and personal factors on change-specific psychological reactions, Study 1 and Study 2 clearly extend and enrich existing change research. Specifically, Study 1 with the focus on the change-specific management variables shows short-term opportunities

of influencing change-supportive intentions by managing and optimizing content-, process- and context-related variables of the change process. Additionally, Study 2 showed that affective organizational commitment can be a valuable resource for organizational changes. Hence, the results offer additional opportunities to prepare an organization and to foster change support by more long-term influencing strategies based on the importance of personal factors.

Building on the openness of the TPB for influences from background variables (Ajzen, 1991; 2011), the theoretical integration proposed by the strata model of change support provides a fertile ground for evidence-based change management. Combining anteceding factors represented by the CPCP-framework (Holt et al., 2007a; 2007b) and the psychological processes suggested by the TPB (Ajzen, 1991) does not only advance scientific knowledge about change reactions, but can help practitioners to design, evaluate, and optimize their intervention efforts to increase employees' supportive intentions.

3.3. General Practical Implications

Particularly in the context of complex organizational changes, employees' change support is required to compensate for the higher uncertainties in planning and implementing organizational changes. Hence, organizational change management is consistently aiming at enhancing the conditions for employees' change support (Choi, 2011). Scholars have highlighted the value of evidence-based change management approaches (e.g., Khan et al., 2014; Vakola, 2013). Following corresponding calls for theoretically sound diagnostics (e.g., McFillen, O'Neil, Balzer, & Varney, 2013), the goal of the present research project is to provide a comprehensive, integrative understanding about the formation of change-supportive intentions.

Summarizing previous research and the three appended studies, the strata model of change support was developed. While the strata model of change support contributes to an integrative theoretical perspective of employees' change reactions, it also carries important implications and specific insights for organizational change management in the context of complex changes. On a general level, the strata model of change support can serve as a flexible, integrative framework for evidence-based approaches to guide change management and to overcome the fragmented nature of change management research. Specifically, the strata model with its embedded established theories supports change managers in setting up meaningful and well-founded change surveys. Assessing the employees' perspective in the

form of change surveys for specific organizational changes provides a powerful tool for comparing the employees' perceptions of the change to the expectations that change managers hold about the change processes (Bouckenooghe et al., 2009). Especially in large and complex change processes, participation of employees through change surveys can guide change management in identifying crucial gaps and weaknesses of the change based on the comprehensive data provided by the employees. Such evidence-based approaches to change management allow to effectively allocate resources in change management and increase the likelihood of successful change. Here, all appended studies serve as valuable examples of how change managers can benefit from making use of the TPB as an established psychological theory to examine employees' change-supportive intentions. The three appended studies showed that the results regarding the contributions of the psychological reactions are context-specific and, therefore, highlight the need for conducting change survey in the context of the specific change one is interested in. In all three studies, the insights derived from the theoretically founded change surveys were of great help in identifying levers for fostering change-supportive intentions among employees.

Another important implication from the three studies is that change managers have to be aware of different stages during the change process. In case of diagnostics, this means that change managers are well advised to plan multiple waves of change surveys for an ongoing monitoring of the change process and a thorough evaluation of the initiated interventions. In addition, the three-stage model of Armenakis and Bedeian (1999) highlights that during readiness, adoption, and institutionalization the employees have evolving needs that have to be addressed by change management. Following the three-stages of change (Armenakis & Bedeian) and the findings of the three appended studies, the role of change-related subjective norms is more pronounced in, but not limited to the earlier stages of a change process. Hence, change managers should establish a supportive social environment for the organizational changes and pay close attention to social dynamics throughout the process. Conversely, change-related PBC gets more relevant at later stages of the change process. This implies that it will be important for change management to establish intervention for ensuring change-related PBC during the implementation of the changes. Specifically, implementation-oriented communication, participation or training opportunities might help to enhance change-related PBC in the course of the change process. Additionally, the configurational results also point to a double dividend of fostering change-related subjective norms and PBC in earlier stages, as the combination of change-related attitude with one of the two determinants is important for establishing high change-supportive intentions, and both can also compensate a lack of a

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positive attitude to avoid the absence of high change-supportive intentions. Finally, change-related attitude showed a high relevance in all studies and, thus, at different stages of organizational change processes. This consistent relevance implies that change management should always aim at providing relevant information about personal or organizational benefits to foster positive evaluations of the changes by the employees. Yet, the results emphasized that change management should also avoid frustrating employees in later stages of the change, as a lack of positive change-related attitude gains more momentum and becomes the single sufficient factor for a lack of high change-supportive intentions. Therefore, change management should provide realistic benefits of the changes, monitor the development of employees' change-related attitude during progressive phases of the change process, and be sensitive to influences of negative affective events (Lines, 2005).

When tailoring interventions in order to influence change-supportive intentions, the case-centered findings strongly caution researchers and practitioners to solely focus their attention only on one of the psychological determinants (e.g., the factor with the strongest beta-weight). While Ajzen (2006) acknowledged that incremental contributions of the psychological determinants should not be the only aspect for guiding subsequent interventions, the configurational results revealed a high importance of interdependencies among the psychological mechanisms suggested by the TPB. Specifically, interventions of organizational change management have to address change-related attitudes in combination with at least a second psychological determinant in order to effectively influence change-supportive intentions, as the configurations of "socially supported, positive attitude" and "control confident, positive attitude" were most salient in the case-centered results for high change-supportive intentions. In addition, these equifinal solutions leading to change-supportive intentions offer opportunities for change manager to select and design interventions which best suit the organizational context and the resources at hand. For example, in some cases it may be easier to provide trainings that foster PBC than to win over opinion leaders in order to foster change-related subjective norms.

Moreover, the case-centered methods provided deeper insights into the distribution of specific psychological profiles among employees reacting to change. Going beyond previous descriptions of typical employee reactions to organizational changes (e.g., Battilana, & Casciaro, 2013; Judson, 1991), the results of the configurational findings from LPA elucidate the underlying psychological profiles of these reactions. Change managers can use the data on the percentage of supporters (acceptance), fence-sitters (indifference), and resisters (passive resistance, and active resistance) to back-up their gut feelings about the level of

change support that can be expected in the organization. These insights can be of great help to change managers for planning the required scope of the interventions. Moreover, change managers can exploit the differences in the psychological profiles of different employee groups to identify the steps needed to move employees from their current profile to profiles that are associated with higher change-supportive intentions. For example, Study 3 suggests that undecided fence-sitters can be best won over by strengthening their perceptions of change-related subjective norms and PBC to supplement their high attitude for stronger change-supportive intentions.

Besides these practical implications derived from insights on the strata of intentions and of psychological determinants, the appended studies focusing on integrating factors from the interventional stratum provide change managers with specific knowledge about how the psychological reactions can be influenced. Distinguishing situational and personal influences the appended studies revealed short-term and long-term opportunities for fostering change-supportive intentions among employees. Specifically, change managers have short-term opportunities to influence psychological reactions of employees by adequate set up of change-specific management factors. Based on the results of change survey, change managers can assess and evaluate the effects that relevant change-specific management factors currently have on the psychological reactions, and then re-specify the interventions to optimize the desired effects.

For example, one factor that has drawn considerable attention in previous research is communication which represents a central process factor in the CPC-framework (e.g., Armenakis & Bedeian, 1999). Indeed, previous research has suggested that an effective change message should comprise five functions (see Armenakis & Harris, 2002). Against the backdrop of the present research and its focus on the psychological processes suggested by the TPB (Ajzen, 1991), the five functions seem to closely match the psychological processes. For example, discrepancy (i.e., the change is needed), personal valence (i.e., benefits associated with the change), or appropriateness (i.e., change is adequate) are likely to relate to change-related attitudes. Principal support will relate to the perception of change-related subjective norms and efficacy (i.e., confidence in the ability to succeed) is clearly related to change-related PBC. Hence, communication as change-specific management factor can serve manifold purposes. Based on the results of the change survey, change managers can identify the current influences of communication on the psychological reactions of the employees and optimize the strategic content of the change message to provide the employees with more details required to foster change-supportive intentions. For example, the results of Study 1

showed that communication was associated with a greater perception of behavioral control and, thus, fulfilled a central function of a change message (see Armenakis & Harris, 2002). To unleash more of the change message's potential and to target change-related attitude, the findings were used to review and refine the communication strategy for this specific change project by putting a stronger focus on discrepancy and appropriateness. Hence, insights on the linkage between change-specific management factors and psychological processes can be used to optimize interventions in order to foster a high engagement in the change initiatives.

More long-term opportunities for enhancing change-supportive intentions can be found in personal factors. Focusing on influenceable personal factors, affective organizational commitment was found be relate to more positive psychological reactions to organizational change. Hence, change managers should value organizational commitment as resource for organizational change, instead of breaking commitment to create momentum in organizational changes as is sometimes suggested (e.g., Madsen et al., 2005). Hence, organizations are better advised to invest in adequate HR policies and practices, as well as in the organizational culture to foster organizational commitment. Building up a commitment-based HR configuration (Lepak & Snell, 2002) can increase the likelihood of positive change reactions and, therefore, provides a competitive advantage in today's dynamic and change-intensive contexts.

In addition to influenceable personal factors, change managers should be aware of influences from stable personal factors, as age and organizational status were also found to affect psychological reactions to change. While such personal factors can hardly be influenced by the organizations, change managers can build on knowledge about influences of these stable change-recipient characteristic for designing tailored interventions aimed at specific target groups. For example, organizational status of white-collar employees or supervisors was repeatedly related to more positive evaluations compared to blue-collar employees. These results can be seen as reflecting that white-collar employees and supervisor are more readily and earlier involved in planning and implementing organizational changes. While these results may demonstrate the relevance of participation opportunities for enhancing change support, they also imply that change managers are well advised to also offer specific interventions for convincing blue-collar employees and foster change support among them.

3.4. General Limitations and Future Directions

As with all research, there are limitations that should be considered for the interpretation of the presented results. Specifically, all three appended studies relied on self-report data which is often associated with the threat of common-method bias. However, Lance et al. (2010) concluded that common method variance (CMV) seems not to be as threatful as commonly assumed. Indeed, Schaller, Ashutosh, and Malhotra (2015) concluded that CMV is of little concern in research on the TPB. They (Schaller et al., 2015) based their conclusion on post hoc analyses of previous TPB research which showed that path coefficients were only marginally affected by CMV and hence substantive conclusions of previous research are not endangered. Nevertheless, all studies applied several tests to examine whether CMV might have critically affected the presented results. In each study testing a series of measurement models with different complexities and comparing the assumed measurement model to a single factor as suggested by Harman's single factor test showed that CMV was not a serious problem and the constructs were sufficiently distinct.

Moreover, two of the three studies collected data at a single point in time during the ongoing organizational change project. This clearly limits deductions regarding the causality of the effects based on the empirical findings. While the causal order assumed in the three studies follows strong theoretical and empirical foundations, future studies should employ longitudinal designs to shed more light on the causal ordering of the assumed relationships. The value of an additional measurement time was already shown by Study 3. Employing two measurement times during a complex change project allowed to address questions about the stability of the effects and provided insights into the psychological processes at different stages of the change process. Yet, in this case the data set could not be matched at an individual level. Building on the present findings, future research employing matched data would have a great chance of taking a closer look at individual trends and interrelationships. For example, reciprocal relations between affective organizational commitment and change-supportive intentions could be studied in a cross-lagged panel design, as commitment is not only suggested as a central antecedent, but also as an outcome variable of organizational changes (Fedor, Caldwell, & Herold, 2006).

In addition, it will be of great value to apply longitudinal designs with more than two measurement times. Such multi-wave data may help to deepen our understanding of the relevance of different stages in change processes (Morin et al. 2016). For example, future studies with a baseline measurement just before or shortly after the initiation of the change

processes might provide unique insights into the early development of supportive intentions. Indeed, the findings of the three appended studies point to a high relevance of considering different stages in a change process. A promising framework of stages in a change process that resembles Lewin's (1947) early work and also has roots in psychological theories is suggested by Armenakis and Bedeian (1999) and comprises a readiness phase, an adoption phase, and an institutionalization phase of changes. Future research building on these stages could help to enhance our understanding of psychological processes affecting change-supportive intentions in the course of a change process.

Another limitation of the three appended studies can be seen in response rates of the surveys which ranged from 29% (Study 1) to 42% (Study 2). Yet, such response rates are not uncommon in research on organizational change (e.g., Chawla & Kelloway, 2004; Herscovitch & Meyer, 2002; Oreg, 2006). Moreover, Rogelberg, Conway, Sederburg, Spitzmüller, Aziz, and Knight (2003) concluded that in most organizational surveys, nonresponse bias is not a serious concern, as passive nonresponse is often a main reason and does not seriously bias results. When available the characteristics of the study's sample were compared to data of the general population in the organization which revealed no substantial biases in many respects. In addition, Study 3 compared early- and late-responders and found only small and inconsistent relationships with relevant variables.

Besides these limitations, the three appended studies also offer promising avenues for future research to extend the proposed strata model of change support. While the three appended studies helped to develop the strata model of change support, future research can build on the general framework and the findings of the present research for specifying further refinements and extensions of the strata model of change support. Specifically, research opportunities and conceptual extensions can be identified at each of the core strata of change support. Moreover, the appended studies also revealed that situational and personal influences need to be differentiated based on the degree of potential influenceability. Hence, the core strata model will be extended by another layer coined stratum of conditional factors (see Figure 3). In the following conceptual developments for an extended strata model of change support will be presented as a common framework and agenda for future research.
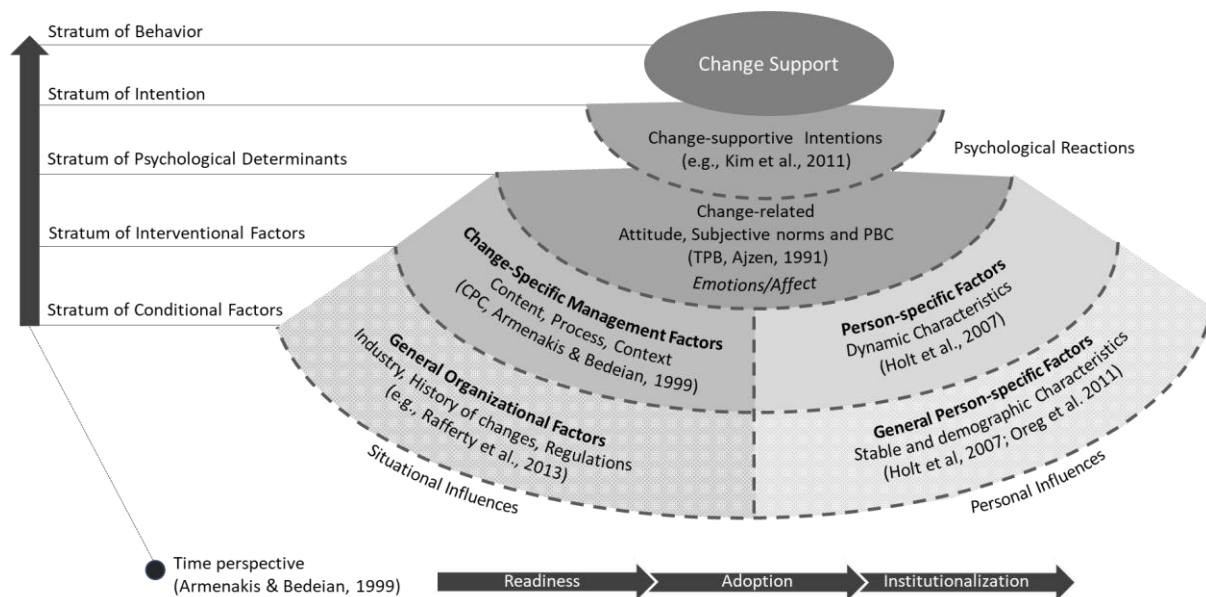
Figure 3: Extended strata model of change support.

Starting with the stratum of behaviors, future studies should unleash the full potential of the TPB (Ajzen, 1991) and take actual behavior into account. While the conceptualization of intentions as most proximal variables to behaviors has been supported by consistent and substantial links of intentions to behaviors (e.g., McEachan et al., 2011), studies on actual behaviors could draw on multi-source data (e.g., observations, document analyses) and, thus, overcome criticisms related to common-method variance. In addition, future research should clarify the relationship between employees' change support and change resistance, as the present research study focused on the positive side of change support for proactive change management as suggested by Armenakis and colleagues (1993).

Concerning the relationship between the strata of behavior and intentions, positive intentions about organizational changes can be seen as a valuable milestone, but the employees have to effectively act upon their intention. For example, Sheeran (2002) showed that the often-observed intention-behavior inconsistency can be mainly attributed to the inclined abstainers (i.e., people who intend to perform the behavior and then don't do so). The transition from intention to behaviors is suggested to require "considerable work" (Ajzen, 2002b, p. 118) and self-discipline (Kautonen et al., 2015). Hence, it will be important to shed more light on how to provide facilitating conditions for performance of the desired behaviors. Future studies that address the linkage of change-supportive intentions and behaviors should consider the double role of PBC which describes that PBC has an influence on change-supportive intention, but also has an additional direct effect on acting out the

behavior (Ajzen, 1991). Moreover, future research should take into account that the relationship between intentions and behaviors are stronger when shorter intervals (5 weeks or less) are used (Ajzen, 2011).

Another aspect that has to be considered is that the measures applied in the three studies were formulated on a rather global level in order to take the complex nature of the changes into account. However, research suggested that more specific and higher intentions are more likely to transfer to actual behaviors (Ajzen, 2002b; Kautonen et al., 2015). For example, Sheeran (2002) states that intentions regarding single actions or goals are better predictors of actual behaviors. Moreover, based on work from Gollwitzer (1999), it has been suggested that people who form a specific plan for acting out the behavior (so-called implementation intentions) will be more likely to actually perform the behavior. Ajzen (2002b) clarified that intentions involving certain degrees of ambivalence, uncertainty, or indifference won't be good predictors of behaviors. Hence, future research should explicitly address issues of ambivalence, uncertainty, or indifference regarding change-supportive intentions and their relationship to actual change-supportive behaviors.

Focusing on the strata of psychological reactions, the psychological determinants suggested by the TPB (Ajzen, 1991) explained large amounts of variance in change-supportive intentions across all appended studies. In addition, the psychological determinants served as mediators for the change-specific management factors and affective organizational commitment as personal influence. Yet, the mediation of affective organizational commitment was only partial with affective organizational commitment still having a significant direct effect on change-supportive intentions. Indicating that there may be other psychological processes linking affective organizational commitment and change-supportive intentions, these findings open a great opportunity for future research on the psychological processes of employees during organizational changes.

Indeed, one of the most recurring criticisms regarding the TPB is that "factors ostensibly neglected in the TPB are affect and emotions" (Ajzen, 2011, p. 1116). Viewed from this perspective, organizational changes provide many characteristics that can trigger diverse emotional reactions. For example, organizational changes are associated with risks, pose challenges, lead uncertainties, offer benefits and new prospects (Kunisch et al., 2017). Similarly, Rafferty and colleagues conclude that "affective reactions to change may be particularly powerful drivers of change outcomes" (2013, p. 127). Responding to criticisms about the sole focus on rational and cognitive aspects in the TPB, Ajzen (2011) explained that

emotions can serve as background factors as they influence how people evaluate events and how behavioral, normative and control beliefs are selected and integrated.

Moreover, previous research has found that the role of emotions is characterized by temporal shifts during changes (Sanchez-Burks & Huy, 2009). Acknowledging these temporal shifts stresses the importance of longitudinal designs and the consideration of different stages to further our understanding of the employees' reactions to organizational changes (Balogun, Bartunek & Do, 2015). Emotional apertures, characterized as the capacity to recognize and sensibly react to emotional responses of the employees has been recently suggested to have a substantial influence on the success of change management (Sanchez-Burks & Huy, 2009). Indeed, other psychological theories on the role of emotions in affecting behaviors (e.g., Barrett, 2006; Luo, & Yu, 2015; Urda, & Loch, 2013) could be used to extend the presented research framework.

Hence, from a change management perspective as well as from a general perspective of TPB research, it will be important to explore the role of emotions and their dynamics in order to understand whether emotions serve as relevant background variables or whether they even have to be considered as additional psychological determinants (Ajzen, 2011; Oreg, Bartunek, Lee, & Do, 2018; Rafferty et al., 2013). Besides quantitative methods, future research will profit from making use of modern qualitative analysis with algorithm-based sentiment analysis and opinion mining (Pang & Lee, 2008) or probabilistic topic modelling (Blei, 2012). Such qualitative analyses can help to advance our knowledge about emotions, as well as of affective events and narratives that trigger emotions during organizational changes.

Relating to situational influences from the stratum of interventional factors, Study 1 showed that the CPC-framework can help to comprehensively select prominent change-specific management variables. Yet, more research is needed to extend our knowledge about other change-specific variables representing the CPC-factors (Armenakis & Bedeian, 1999). As mentioned before the plethora of variables studied in relation to employees' change reactions hinders practical application and evidence-based change management (e.g., Khan et al., 2014; Rousseau, 2007). Hence, it will be important to integrate management variables with similar meaning and develop a comprehensive overview of the most relevant variables. Such integrative knowledge about the change-specific management factors and their typical relations to psychological reactions of the employees will provide an effective toolbox for researchers and practitioners.

Regarding personal influences from the stratum of interventional factors, Study 2 has shown that organizational commitment as a personal factor also has significant influences on the psychological processes and change-supportive intentions of the employees. Hence, future research could explore the effects of other influenceable personal factors, such as trust in peers (e.g., Eby et al., 2000; Vakola, 2013) which could be influenced by team-development workshops. Similarly, trust in management has shown consistent positive relations to employees' change reactions (e.g., Eby et al., 2000; Oreg et al., 2011; Stanley et al., 2005). Hence, building up trust in management as a resource for organizational change seems a good longer-term intervention strategy. Focusing on how a number of personality traits influence coping with organizational changes, Judge et al. (1999) showed two main personality factors, namely positive self-concept, and risk tolerance. Based on research from Caspi and Bern (1990), Judge et al. (1999) concluded that the positive self-concept of employees may be more malleable than risk tolerance. Given that a positive self-concept likely influences change-specific psychological reactions of employees, future research investigating the effects of a positive self-concept and how the self-concept can be influenced is very promising.

Additionally, building on these results of the appended studies future research should take a look at how change-specific management variables and personal factors simultaneously take their effects on the psychological reactions of the employees. For example, Peccei et al. (2011) suggested that affective commitment might have moderating effects on management variables in their relation to psychological reactions. Moreover, Oreg et al. (2011) called for more research addressing the complex relationships among variables influence employees' change reactions. Following Study 3, researchers are encouraged to jointly apply variable-centered and case-centered method for a thorough investigation of complex relationships. Hence, future studies that analyze the interplay of change-specific management factors and personal factors from a configurational perspective are very promising for evidence-based change management.

Beyond these opportunities for future research based on the core strata of change support, the three appended studies and previous research (e.g., Rafferty et al., 2013) also indicate that there are conditional factors that might have additional influences on the interplay of factors from more change-specific strata of the proposed framework. Hence, the extended strata model of change support goes beyond the strata focused in the present research and includes the stratum of conditional factors as relevant background factors for the core strata model of change support. Similar to the stratum of interventional factors, the

stratum of conditional factors comprises situational and personal aspects. However, variables at the conditional strata are rather stable and should be considered as anteceding conditions for change management and for employees' change-specific reactions.

Representing situational aspects at the conditional level, general organizational factors, such as industry type, regulation, or the organizations' history of changes are proposed to influence the implementation of organizational changes (e.g., Rafferty et al., 2013). However, it is not an easy endeavor to study these conditional factors, as designs that involve multiple organizations would also be confounded with other organization-related variables. Moreover, in many cases, the nature of the changes in the organizations might differ or not be directly comparable as categories of change often overlap (Smith, 2002) which renders comparisons across organizations rather delicate. Hence, more replications and systematic comparisons by meta-analytic procedures might be pragmatic solutions to approach the situational aspects at the conditional level.

Turning to personal aspects of the conditional stratum, future research could investigate how stable personal characteristics influence psychological reactions to change. For example, organizational status has been revealed as relevant factor in relation to different psychological reactions to change in Study 2 and Study 3. Study 2 also found significant relationships of age on the psychological reactions of employees. While the influence of demographic variables, such as age, has been of minor importance by showing only few and small relations to change-supportive intentions and behaviors (e.g., Jimmieson et al., 2008; Jimmieson, & White, 2011), scholars (Judge et al., 1999; Kunisch et al., 2017; Petrou et al., 2016) have suggested other variables, such as tolerance of ambiguity (Furnham & Ribchester, 1995), risk tolerance (Judge et al., 1999), openness to experience (McCrae, 1993), promotion or prevention regulatory focus (Higgins, 1998), or coping styles (Fugate et al., 2002) to take relevant effects on employees' reactions to change.

3.5. General Conclusion

Given the high relevance of successful organizational changes and the recognized crucial role of employees' change support, the present research project sought to deepen our knowledge about the formation of change support in the context of complex organizational changes. Reviewing the literature and recent developments in change management research, change-supportive intentions were identified as most proximal psychological variable related to employees' change support. Hence, the TPB (Ajzen, 1991) – representing an established psychological theory – was applied in all three appended studies to systematically examine the psychological processes related to change-supportive intentions.

Besides the general support for the TPB as useful and promising theoretical foundation for explaining change-supportive intentions, the three appended studies helped to develop the strata model of change support. The strata model of change support integrates situational and personal influences on the psychological processes leading to employees' change support. Building on the TPB (Ajzen, 1991) for change-specific psychological reactions and the CPCP-framework (Holt et al., 2007a; 2007b) for preceding influences, the strata model of change support provides an integrative perspective on the formation of change support. As such the strata model has a high potential to overcome current challenges in change research and to guide researchers and practitioners through a fragmented and theoretically diverse research field (e.g., Oreg et al., 2011). Based on its integrative and systematic perspective, the extended strata model of change support offers promising avenues for future change research within a common theoretical framework. From an applied perspective, the strata model of change support can serve as theoretical framework for the selection of variables for change surveys, as well as for the evidence-based development, and evaluation of interventions to foster employee support for organizational change processes.

Besides the integrative contribution of the three appended studies, the present research project showed the benefits of applying a configurational perspective to uncovering complex relationships among the psychological determinants of change-supportive intention. The configurational perspective clearly enriched current knowledge about the formation of change-supportive intentions. Specifically, the case-centered methods revealed different psychological profiles and showed that at least two psychological determinants have to be addressed to effectively foster change-supportive intentions. Extending the configurational perspective to all levels of the strata model of change support will be an important step to

develop a better understanding of the complex interplay of variables within and between the suggested strata of change support.

Taken together, the three studies provide new insights into the formation of change-supportive intentions and further the theoretical integration and refinement called for in organizational research. The suggested integrative framework of the extended strata model of change support derived on the basis of the three appended studies is an important integrative step for change research and change management. Based on its systematic and theoretically sound conceptualization, the strata model offers a valuable foundation and promising future avenues for change research. At the same time, the strata model can help to bridge the science-practitioner gap. In this regard, the appended studies represent good examples of the advantages of well-founded change surveys for change management. Correspondingly, the strata model provides great value for organizational change management in systematically analyzing and optimizing organizational change processes. Thus, the present research project paves the way for more systematic research on change support, as well as for more evidence-based and proactive change management.

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