

**Configurational approaches to individual and multilevel data:
Qualitative comparative analyses of competences, leadership, and resources**

Der Fakultät für Wirtschaftswissenschaften der
Universität Paderborn

zur Erlangung des akademischen Grades

Doktor der Wirtschaftswissenschaften

- Doctor rerum politicarum -

vorgelegte Dissertation

von

M.Sc. Luc Sandfort,

geboren am 17.02.1995 in Lippstadt

Acknowledgements

Many companions contributed to the journey this dissertation has been, and to all of them I would like to express my heartfelt gratitude.

I would like to express my deepest thanks to my supervisor, Prof. Dr. Martin Schneider, for his continuous enthusiasm, encouragement, and support throughout the course of this dissertation. His patience and valuable feedback have been supportive at every stage of this dissertation.

This dissertation was made possible by the support of the research projects *PredicTeams* and *Change.WorkAROUND*. I gratefully acknowledge the financial support provided by the *Ministry of Economic Affairs, Industry, Climate Action and Energy of the State of North Rhine-Westphalia* and the *Federal Ministry of Research, Technology and Space*, which enabled most of the research presented in the individual papers of this thesis, many collaborations, and especially participation in conferences.

In terms of collaborations, I would also like to thank my co-authors on the joint work included in this dissertation. Working with Katharina Agethen and Anja Iseke, with Dr. Patricia Palffy and Prof. Dr. Uschi Backes-Gellner, as well as Dr. Talea Hellweg and Dr. Katharina Radermacher, has been an inspiring experience, from which I learned a great deal both professionally and personally. I am especially grateful for their expertise and constructive discussions, which contributed to the research presented in this dissertation.

I am also deeply grateful to my colleagues at the Chair of Personnel Economics and the colleagues of Change.WORKAROUND at the Chair of Information Systems. Thank you for the supportive atmosphere, stimulating discussions, and constant encouragement along the way. Both the academic exchange and the personal support made working a pleasure and contributed greatly to completing this dissertation.

Finally, I am deeply grateful to my family, my partner Sebastian, and my close friends for their unwavering support throughout this journey. This dissertation would not have been possible without them.

Table of Contents

List of figures	IV
List of tables	V
List of abbreviations.....	VI
List of papers.....	VII
1 Synopsis	1
1.1 Introduction.....	1
1.2 Previous work	4
1.2.1 Regression analysis vs. qualitative comparative analysis.....	4
1.2.2 Configurational approaches in HR.....	6
1.3 Configurational approaches to competences, leadership, and resources	8
1.3.1 Competences	10
1.3.2 Leadership.....	13
1.3.3 Resources	16
1.4 Discussion and lessons learned.....	18
1.5 Limitations and future research	20
1.6 Conclusion	21
References	22

List of figures

Figure 1-1 (Multilevel) QCA with a focus on the individual level	9
--	---

List of tables

Table 1-1 Overview of the five research papers.....	9
---	---

List of abbreviations

AMO	Ability-Motivation-Opportunity (Framework)
COR	Conservation of Resources
IMO	Input-Mediator-Output Model
HLM	Hierarchical Linear Modelling
HR	Human Resources
HRM	Human Resource Management
JDR	Job-Demands-Resources
LABB	Längsschnittanalysen im Bildungsbereich
LPA	Latent Profile Analysis
NEET	Not in Education, Employment or Training
PRI	Proportional Reduction in Inconsistency
RoN	Relevance of Necessity
(fs)QCA	(fuzzy-set)Qualitative Comparative Analysis
SFSO	Swiss Federal Statistical Office
VET	Vocational Education and Training

List of papers

Paper 1:

Sandfort, Luc¹ (2024). Analyse von Kompetenzprofilen. In *Digitales und prädiktives Kompetenzmanagement* (pp. 87-115). Berlin, Heidelberg: Springer.

Paper 2:

Sandfort, Luc; Schneider, Martin¹ (2025). Learning about effective leader behavior from organizational upward feedback: A configurational perspective. Working Papers Dissertations 164, Paderborn University, Faculty of Business Administration and Economics. <https://ideas.repec.org/p/pdn/disap/164.html>

Paper 3:

Agethen, Katharina²; Sandfort, Luc; Iseke, Anja² (2026). Are collectivist leaders necessary for fluid virtual teams? A multilevel configurational approach. Working Papers Dissertations 171, Paderborn University, Faculty of Business Administration and Economics. <https://ideas.repec.org/p/pdn/disap/171.html>

Paper 4:

Palffy, P.³, Sandfort, L., Schneider, M., & Backes-Gellner, U.³ (2026, first version 2024). Early careers and individuals' resources: Configurational pathways to stable employment for middle-skilled workers. Swiss Leading House "Economics of Education" Working Paper No. 221, University of Zurich, IBW-Institut für Betriebswirtschaftslehre. http://repec.business.uzh.ch/RePEc/iso/leadinghouse/0221_lhwpaper.pdf

Paper 5:

Sandfort, Luc; Hellweg, Talea¹; Radermacher, Katharina¹; Schneider, Martin (2026). Modelling hierarchical configurations in innovation research with two-step QCA: Methodological recommendations and an application to workarounds. *Creativity and Innovation Management*. <https://doi.org/10.1111/caim.70053>

Note:

¹ Paderborn University, Department of Management, Paderborn, Germany

² OWL University of Applied Sciences and Arts, Department of Business Administration and Economics, Lemgo, Germany

³ University of Zurich, Department of Business Administration, Zurich, Switzerland

1 Synopsis

1.1 Introduction

“Theory, methods, and data are inexorably intertwined in science” (Bliese et al., 2024). These are the opening words written in a recent editorial of the Academy Journal of Management. The authors continue to emphasize a strong theory-method-data alignment while re-examining methods that have not yet received sufficient attention in management research. Among these methods, qualitative comparative analysis (QCA), with its case-oriented focus, represents an interesting and promising avenue that takes a configurational perspective on management topics of practical importance, where patterns within studied units are of interest and heterogeneity is embraced. QCA, both as a research approach and a research method, has long gained increasing attention in various fields of management research because statements of complex causality have described many phenomena in management (Schulze-Bentrop, 2013, pp. 98–112). For example, research often examines organizational (culture) configurations, human resource configurations, team configurations, or leader trait configurations (Schulze-Bentrop, 2013, pp. 102–107). But while research often theorizes a complex interplay of factors within these configurations, few studies have methodologically analyzed these phenomena accordingly (e.g., Fiss, 2007; Meuer & Fiss, 2020; Misangyi et al., 2017; Schulze-Bentrop, 2013).

This dissertation identifies a persisting mismatch between theoretical assumptions of complex causality and empirical analyses based on linear causality in past research in the broader field of human resource management (HRM), particularly for individual-level phenomena (Misangyi et al., 2017). For example, researchers have highlighted the complex and configurational nature of human resource practices, yet initially attempted to model them using regression-based methods (e.g., Delery & Doty, 1996). However, complex causality cannot be modelled with regression-based methods, as these methods estimate the net effects of single human resource practices and thereby imply linear causality. Therefore, some research has already taken a configurational approach and applied QCA to study configurations of human resource practices (e.g., Backes-Gellner et al., 2016; Meuer, 2017). There are three core elements that characterize complex causality, which can be modelled when researchers apply QCA (Fiss, 2007; Misangyi et al., 2017; Ragin, 2000): First, human resource practices combine in distinct configurations that jointly explain high labor productivity. This is also called *conjunctural causation*. In addition, *equifinality* implies that various combinations of human resource practices explain

labor productivity. Thus, human resource practices can complement or substitute for one another. Lastly, *asymmetry* is assumed. This element posits that high labor productivity is characterized by different combinations of human resource practices compared to low labor productivity. At the same time, while the presence of one human resource practice in a specific combination might explain high labor productivity, it can also be the absence of the same human resource practice in a different combination that might explain the same outcome. Overall, this example demonstrates that, as both a research approach and a research method, QCA enables theorizing and analyzing actual configurations of human resource practices.

However, although first researchers have agreed that a configurational approach using QCA better suits existing theories, this research has mostly been conducted in strategic management, and it has applied QCA on organizational-level phenomena (e.g., de Vos & Cambré, 2017; Fiss, 2007, 2011; Greckhamer et al., 2008; Meuer, 2017). As a result, there remains a lack of studies in human resource management that examine phenomena at the individual level and empirically examine complex causality, rather than linear causality, or even combine individual-level and organizational-level factors applying a multilevel configurational approach (Ketchen, 2013; Misangyi et al., 2017; Short et al., 2008).

Therefore, this dissertation aims to contribute to a better understanding of complex causality in the broader field of human resource management by taking a holistic configurational approach to theories, methods, and data with a focus on individual-level phenomena. In doing so, the following questions are addressed: *How can configurations be systematically and more effectively analyzed with Qualitative Comparative Analysis (QCA)? How does context shape the interpretation of configurational findings? How can multiple levels of analysis be integrated within a QCA?*

To answer these core research questions, this dissertation examines three topics in human resource management in more detail: competences, leadership, and resources. With two (interdisciplinary) research projects—“PredicTeams” and “Change.WorkAROUND”—as the cornerstones of this dissertation, the individual papers cover a wide range of different and practically relevant application contexts. For example, in my first research project, “PredicTeams”, we studied the topic of competences in a team setting and how configurations of (team) competences are linked to (team) performance. In my second research project, “Change.WorkAROUND”, we examined workarounds as informal employee innovative work behavior. In particular, we were interested in the cultural and personal factors contributing to

the emergence of workarounds as well as in how factors at multiple levels can be modelled. Although these contexts differ, they share a common focus on individual-level configurations. In the dissertation papers resulting from the two research projects, we were therefore able to identify employee and team competence profiles, emergent leadership profiles, resource configurations, and configurations of organizational and personal factors. While theoretical arguments of complex causality at the individual level have been widespread for each of the three core topics of this dissertation, both in practice and research, empirical applications remain scarce (Ketchen, 2013; Lee Whittington et al., 2013; Meyer et al., 1993; Misangyi et al., 2017).

Therefore, this dissertation builds on previous work on QCA in HRM research and highlights the potential of QCA for individual-level and multilevel analyses to address the frequently observed mismatch between theoretically implied complex causality and empirically applied linear complexity. In this way, this dissertation aims to strengthen the prerequisites of a successful theory, method, and data link for phenomena marked by complex causality (Bliese et al., 2024). To this end, five papers examine the diverse applications of the QCA method across the broader field of human resource management. In particular, this dissertation offers insights into how and why human resource management literature can be enriched by a configurational methodology, particularly on individual-level phenomena (Park et al., 2020). Furthermore, while individuals are often part of a broader ecosystem, previous research has applied QCA almost exclusively at one level. Therefore, this dissertation showcases and contributes methodological extensions of the QCA to bridge multilevel relationships and consider the interrelationships among levels (e.g., Crilly, 2013; Meuer & Rupietta, 2017). The following five research papers offer distinct contributions to existing research:

1. Research paper 1 discusses different empirical methods for analyzing competence profiles and introduces QCA as an appropriate research approach and method for analyzing competence profiles at both the individual and team levels for researchers and practitioners alike.
2. Research paper 2 investigates which combinations of group-perceived day-to-day leadership behavior explain different dimensions of effective leadership performance.
3. Research paper 3 examines which combinations of individual team members' motives explain perceived emergent leadership and which resulting emergent leadership profiles drive team performance when combined with team processes.

4. Research paper 4 examines configurations of resources inherent within the individuals themselves and resources accessed from family, friends, and the individuals' workplace, and how they jointly explain successful labor market transition.
5. Research paper 5 examines which individual and perceived organizational factors combine to produce bottom-up innovations.

The following section of the synopsis contrasts a configurational approach that applies QCA as a qualitative research method with quantitative, regression-based methods and presents previous work on configurational approaches in management research more generally (Section 2). This is followed by the current status of configurational approaches in human resources more specifically, and how the individual papers of this dissertation contribute to the existing body of knowledge in the three HR topics of competences, leadership, and resources (Section 3). Next, the synopsis concludes with a discussion of the lessons learned (Section 4), limitations and recommendations for future research (Section 5), and the overall conclusion of this dissertation (Section 6). Finally, the Appendix presents an overview of the author's scientific presentations and publications.

1.2 Previous work

1.2.1 Regression analysis vs. qualitative comparative analysis

Research in human resource management has a long tradition of quantitative methods, examining the net effects of organizational or individual factors on various dimensions of individual or organizational performance. This type of research can be categorized into so-called “effects-of-causes” models, which build on statistics such as regression analyses, and aim at generalizing average effects of independent variables (Goertz & Mahoney, 2013).

In contrast, QCA can be seen as a more qualitative research method that follows a “causes-of-effects” approach, aimed at understanding how different combinations of factors (called *conditions*) lead to a specific outcome. Because QCA builds on Boolean algebra and set theory, the relationships of condition(s) and the outcome are defined in terms of *necessity* and *sufficiency* (Ragin, 2008; Schneider & Wagemann, 2012, pp. 56–75). Whereas necessity relations refer to the presence of an outcome implying the presence of a condition, sufficiency relations refer to the presence of a condition implying the presence of the outcome.

Both methods can be compared and contrasted in more detail by examining the exemplary model specifications in equation (1)¹ and (2):

$$Y = (A * B * c) + (A * C * D * E) \quad (1)$$

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_{12} X_1 * X_2 + \varepsilon. \quad (2)$$

As shown in equation 1, QCA assumes complex causality. Thus, it primarily examines combinations of conditions, in which it is not condition A alone that influences outcome Y (*conjunctural causation*). This is marked with the Boolean “*”, which refers to a logic “AND”, and combines condition A with condition B *AND* condition c. Therefore, QCA requires additional conditions, often in multiple causal paths (*equifinality*), to be present in the equation. In equation 1, these paths are illustrated with a Boolean “+”, which refers to a logic inclusive “OR”. Thus, we find two causal paths existing in equation 1, where A combines with either B*c *OR* with C*D*E. In addition, we find that conditions D and E are relevant only in one of the two causal paths, and condition C is both present in one causal path (A*C*D*E) and absent in another (A*B*c) (*asymmetry*). These arguments are different for regression-based methods. Equation 2 is marked by linear causality. In particular, we observe *additive causation* (“+”), where the net effects of single independent variables are estimated: more or less of X_1 leads to more or less of Y, holding the other variables constant. Even when interaction terms are used to model the interplay among at least two variables, researchers continue to estimate the net effects of the variables in the interaction terms.

The differences become clearer when illustrated with an example. In past research, studies have examined whether a proactive personality has a positive or negative effect on the innovativeness of individual employees (e.g., Mubarak et al., 2021) or how specific HR practices influence firm innovativeness (e.g., Shipton et al., 2006) or firm performance (e.g., Delery & Doty, 1996). They were interested in the strength and significance of these effects and whether they were universal and thus generalizable. Even though this is a legitimate and important research approach, human resource management and related fields of research, such as organizational behavior, have begun asking questions that require “causes-of-effects” models because they assume complex causality (e.g., Bos-Nehles et al., 2023). In many complex cases, a focus on linear causality neglects the intricate interplay of several individual or organizational factors

¹ Note: “+” denotes a logically inclusive *OR*, “*” denotes a logically *AND*, capital letters refer to the *presence* of a condition, and lower case letter refer to the *absence* of a condition.

(Delery & Doty, 1996). To better examine “causes-of-effects” questions, a configurational methodology using QCA is required. For example, in the same year Bos-Nehles et al. (2017) published their review on innovative work behavior, utilizing the ability-motivation-opportunity (AMO) framework to categorize HR practices as either ability-enhancing, motivation-enhancing, or opportunity-enhancing for the innovativeness of the individual employees, an additional publication by Meuer (2017) adopts the AMO framework. But the author extends its past empirical focus on single, equally important HR practices by taking a configurational approach, and examining HR bundles that jointly contribute to the outcome. The study by Meuer (2017) undermines the core idea of the AMO framework as a “causes-of-effect” perspective, in which HR practices, categorized into the AMO framework, function as configurations that interact with one another, and where different HR bundles therefore contribute differentially to high labor productivity.

All five papers in this dissertation address and apply “causes-of-effects” models. Whereas Paper 2, Paper 4, and Paper 5 examine individual-level characteristics (leadership behavior, personal resources) —with a corresponding performance measure on the individual level (leadership effectiveness, successful labor market entry, informal innovative work behavior) —Paper 1 and Paper 3 examine individual-level characteristics (competences and motives) with a focus on a performance measure on the team level (team performance).

1.2.2 Configurational approaches in HR

Originating in the 1980s through the work by Charles Ragin (1987), QCA was first introduced as a case-oriented research approach and research method for analyzing macro-level data, such as country-level data, in sociology and political science. Around the same time, configurational theorizing began to gain prominence in business and management research, particularly within organization theory and strategic management (e.g., Delery & Doty, 1996; Meyer et al., 1993; Short et al., 2008). Scholars in these research fields increasingly recognized that organizational outcomes often result from an interplay of complex combinations rather than from the linear influence of individual variables. For example, Delery and Doty (1996) argued for examining bundles of HR practices rather than isolated practices. However, for data analysis, they relied on regression-based methods. Similarly, Short et al. (2008), emphasized the importance of configurations in research in human resource management and organizational behavior. However, despite these conceptual advances, most empirical analyses continued to rely on regression-based techniques, which are, as described above, inherently ill-suited to capturing

configurational causality. This methodological misalignment created a gap between configurational theorizing and the available empirical tools.

The introduction of QCA to management research by Fiss (2007) provided a means to bridge this gap, marking a turning point in the study of organizational configurations (Fiss, 2011; Greckhamer et al., 2008; Meuer & Fiss, 2020; Misangyi et al., 2017). QCA explicitly addresses causal complexity (equifinality, conjunctural causation, and asymmetry), which are core principles of configurational theory that regression-based methods are unable to account for (Misangyi et al., 2017). Consequently, the first wave of QCA studies in management focused on organizational-level configurations, using the organization as the primary unit of analysis (Fiss, 2011; Greckhamer et al., 2018; Meuer & Fiss, 2020; Misangyi et al., 2017). But more recently, as research in human resource management and organizational behavior has expanded (e.g., de Vos & Cambré, 2017; Meuer, 2017), scholars have begun to extend QCA beyond the organizational level, applying it to individual-level data (e.g., Bader et al., 2019; Lewellyn & Muller-Kahle, 2022; Ong & Johnson, 2023). This development reflects not only a broadening of QCA's methodological scope but also a growing recognition that configurational complexity operates at multiple levels of analysis.

Many individual-level phenomena that are of practical relevance are marked by complex causality, and previous research indicates that theories that are applied to this type of phenomenon often require a configurational research method that is more consistent with the inherent configurational propositions in these theories (Campbell et al., 2023; Gabriel et al., 2018; Lee Whittington et al., 2013; Meuer & Fiss, 2020; Meyer et al., 1993; Misangyi et al., 2017). At the individual level, this configurational approach is also called person-centered (Gabriel et al., 2018; Ong & Johnson, 2023) because QCA considers people as cases to be examined. In contrast, a variable-centered approach relies on net effects thinking of single *variables*. The practical relevance of a person-centered approach becomes especially clear when illustrated with the research project “Predicteams”, where one of the milestones has been the development of a methodological approach to analyze the competence profiles of employees as specific combinations of competences. Competences are often linked to occupations and job positions and are considered multidimensional (Le Deist & Winterton, 2005), so they need to be combined. But research has shown that a multitude of competences exist (for team competences: Bartram, 2005; Doblinger, 2022), making it difficult for practitioners to staff and develop employees if all competences are considered to be of equal importance. In contrast to the predominant view of additive causation being applied to competences, a configurational

approach offers a more parsimonious perspective by narrowing down the competences that consistently combine to explain successful job performance, depending on specific requirements of departments, career level, or industry. Similarly, leadership is often context-dependent (Conger & Ready, 2004; Johns, 2024), which requires different types of leaders or different combinations of leader behaviors in specific situations. Therefore, successful leadership is more complex than it is portrayed in a multitude of individual and often universalistic applied leadership styles (Avolio et al., 2009; Conger & Ready, 2004; Yukl, 2012, p. 67). In addition, a recent publication by Ong and Johnson (2023) emphasizes the configurational nature of the established psychological job demands-resources (JDR) model (Bakker & Demerouti, 2007). While researchers previously applied multiplicative models to analyze the buffering effects of resources to reduce exhaustion, Ong and Johnson (2023) argue that the synergistic effects of demands and resources are best captured by configurational models, in which distinct configurations of demands and resources contribute to exhaustion or engagement. To conclude, these examples highlight implicit configurational thinking at the individual level, which requires a configurational research method to analyze them.

Therefore, this dissertation aims to contribute to recent research in the broader field of human resource management and qualitative comparative analysis by showcasing underexplored examples of configurational theorizing at the individual level. In addition, methodological extensions can benefit future research. Few authors have discussed the role of multilevel configurational analysis (Meuer & Rupietta, 2017; Misangyi et al., 2017; Schneider & Wagemann, 2006), whereas a closer look at the individuals reveals that it is often not only the individual but also environmental or contextual factors that exert influence (Delery & Doty, 1996). This line of argument is typical for researchers adopting a contingency perspective. Two papers contribute to this issue by advancing multilevel QCA that considers contextual factors. In particular, we combine individual-level analysis results with team-level analysis (Paper 3), and individual-level conditions combined with individually perceived organizational-level conditions (Paper 5).

1.3 Configurational approaches to competences, leadership, and resources

The following sections address a configurational approach in HR research in more detail with a focus on competences, leadership, and resources. Three objectives are pursued: First, I review key contributions across the three topics regarding configurational theorizing and its (in-)appropriate methodological application. Second, I provide an overview of methodological

approaches to contextual and multilevel research using QCA. In terms of multilevel, three of the five research papers should be highlighted as they show different and partly new approaches to configurational methods that can capture multilevel analyses (Papers 1, 3, and 5). More importantly, two of the three papers offer new methodological extensions to the original QCA analysis (Paper 3 and 5). Figure 1-1 shows the topics and levels of the five research papers.

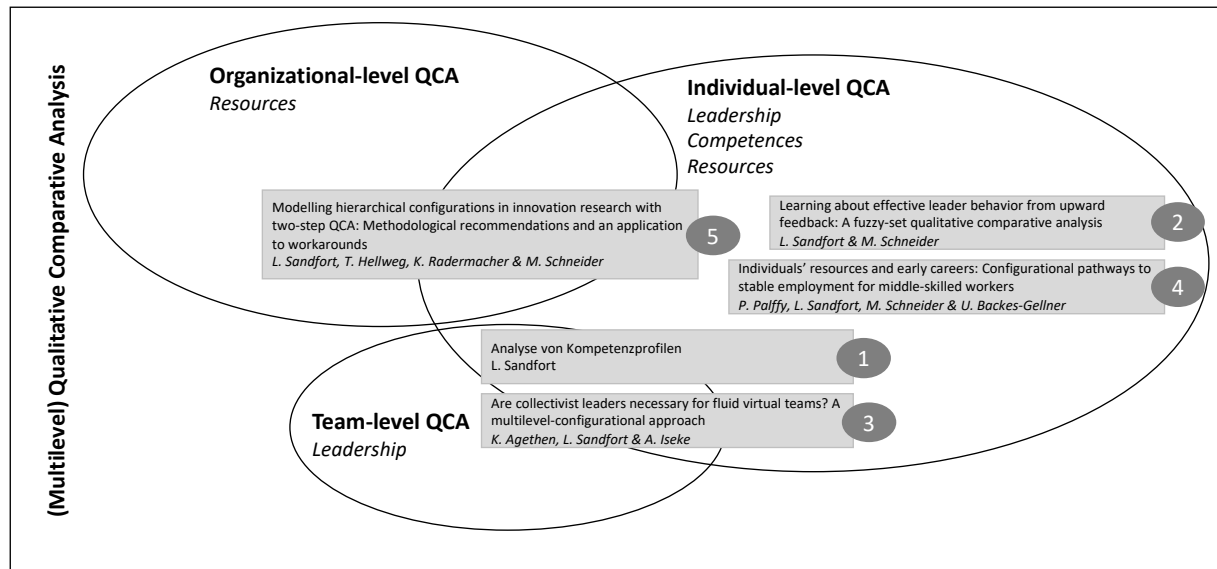


Figure 1-1 (Multilevel) QCA with a focus on the individual level

Lastly, I introduce and briefly describe how each of the five research papers in this dissertation contributes to previous research (see Table 1-1).

Table 1-1 Overview of the five research papers

Paper	HRM theme	Level of analysis
1 Analyse von Kompetenzprofilen <i>Luc Sandfort</i>	Individual and team competences	Individual-level analysis
2 Learning about effective leader behavior from upward feedback: A fuzzy-set qualitative comparative analysis <i>Luc Sandfort & Martin Schneider</i>	Leadership competences (behavior)	Individual-level analysis
3 Are collectivist leaders necessary for fluid virtual teams? A multilevel configurational approach <i>Katharina Agethen, Luc Sandfort & Anja Iseke</i>	Leadership competences (individual dispositions)	Multilevel analysis (configurations of individual-level and team-level conditions)
4 Modelling hierarchical configurations in innovation research with two-step QCA: Methodological	Personal and organizational	Multilevel analysis (configurations of individual-level and

	recommendations and an application to workarounds	resources/factors (AMO factors)	organizational-level conditions)
	<i>Luc Sandfort, Talea Hellweg, Katharina Radermacher & Martin Schneider</i>		
5	Individuals' resources and early careers: Configurational pathways to stable employment for middle-skilled workers	Human, personal, and social resources	Individual-level analysis
	<i>Patricia Palffy, Luc Sandfort, Martin Schneider & Uschi Backes-Gellner</i>		

1.3.1 Competences

Practitioners and researchers have long recognized the complex nature of competences. In organizations, managers are aware that employees need specific competence profiles to perform successfully (e.g., North et al., 2018). Therefore, when filling vacancies, managers have specific ideas about the combinations of soft and hard skills each employee needs for a particular job. In addition, some skills are more essential for certain jobs than others. A practical example is communication skills: Whereas employees in marketing should have a good understanding of how to target customers, communication plays a more secondary role for employees in accounting, where analytical skills are more critical. In other words, communication might be a necessary condition for marketing positions but a sufficient condition, when combined with additional competences, for accounting positions. Similarly, researchers have also started to recognize the complexity underlying individuals' characteristics (e.g., Le Deist & Winterton, 2005; Mathieu et al., 2019). Much like the practitioners' idea of competence profiles, the general definition of competences emphasizes competences as a bundle of individual characteristics that enable the successful execution of an individual's job (Boyatzis, 1982; Le Deist & Winterton, 2005). Thus, the underlying rationale is a holistic approach to competences, where it is a "combination of knowledge, skills and social competences that are necessary for particular occupations" (Le Deist & Winterton, 2005, p. 39).

However, despite the configurational thinking of competences, most studies apply regression-based methods to study the net effects of individual competences (e.g., Doblinger, 2022). Here, we observe a disconnect between the theoretical underpinning of competence profiles, or competences in general, that requires causal complexity, and current research methods that aim to evaluate the net effects of competences on job performance in terms of linear causality. As described above, regression-based methods generally fall short in identifying which

combinations of competences jointly explain successful job performance, even though this is implied in the definition of competences. Thus, the underlying rationale of regression-based methods is that a “more” or a “less” of a competence increases or decreases the performance, holding all the other competences constant. One is interested in the effects of causes (one competence and its effect on job performance) rather than the complex interplay of the causes of an effect (all competences and how they need to be combined for strong job performance).

First research has started to apply a configurational approach using QCA both as a research approach and as a research method. For example, the popular psychological big five personality construct has been argued to be configurational in its nature, as personality traits jointly influence an outcome (Şahin et al., 2019). In contrast to regression-based methods that assume symmetry, the authors also find that personality traits vary depending on the personality traits in a specific configuration, being present in one configuration and absent in another (*asymmetry*) (e.g., Misangyi et al., 2017).

Some research has also suggested to consider competences as context-specific (Le Deist & Winterton, 2005), so that individual characteristics of employees depend on contextual or structural information, such as information about the job or task (Mathieu et al., 2019). But research that accounts for contextual factors of competences often uses moderators. For example, Blickle et al. (2012) build on the early work of Holland (1973) to analyze the importance of work contexts in interaction with personal factors for work outcomes. In particular, they use the person-environment fit as the moderator in the relationship between political skill and job performance. However, the typology of Holland has been argued to be of a configurational nature (Meyer et al., 1993, 1188 f.): Personality and the environment are argued to be multidimensional constructs, each consisting of multiple factors. But also, the typology is about specific interactions of personality and the environment, where one cannot simply exchange individual factors and multiple personality types can be linked to an outcome (*equifinality*).

In this dissertation, **Paper 1** elaborates on the complex causality that characterizes individuals' competence profiles. It provides a practice-oriented introduction to the configurational logic underlying QCA and its potential for analyzing competence profiles—i.e., combinations of competences—of both individuals and teams. With its particular focus on practitioners, it shows how a more research-driven approach can enrich management practices and formulate practical management implications for relevant competence profiles.

Based on an online survey with 30 project teams and a total of 203 team members from different organizations in Germany, various applications of QCA are illustrated. These include the analysis of the actual competence profile of individual team members, conducting a target-actual comparison of competence profiles at the individual or team level, and the analysis of target profiles for future team staffing.

The results highlight the potential of QCA as a case-based, systematic approach for assessing and evaluating competence profiles, enabling evidence-based comparisons across employees within a company. The use of QCA allows assigning individual employees to specific ideal types—logically possible combinations of competences. Building on the ideas of typologies, employees might differ in their particular competence profiles, but multiple employees can be assigned to the same competence profile. Importantly, the results of exemplary analyses for successful team competence profiles shed light on how a configurational approach captures complex causality. First, multiple competences are linked to successful team performance (*conjunctural causation*). Second, multiple team competence profiles are equally linked to successful team performance (*equifinality*), and lastly, we find team competence profiles that include combinations of the presence of competences with the absence of others (*asymmetry*).

As implied above, Paper 1 examines individual employees nested within teams, which requires a multilevel QCA. While the competence profiles of individual team members can be examined, successful team performance depends on the interplay of team competences, that is, the team's competence profile. Following *the relative contribution model of team composition effectiveness* by Mathieu et al. (2014, pp. 141–144), some team members may contribute more strongly to team performance than others. To capture this, I apply different aggregation modes at the team level in exemplary analyses. Specifically, I use a *minimum aggregation* when team performance depends on all members being competent (e.g., collective orientation, exploration, resilience), and a *maximum aggregation* when the presence of at least one highly competent member is sufficient (e.g., grit). This approach allows the multilevel QCA to model varying team competence profiles and their links with (un-)successful performance.

Lastly, Paper 1 also shows that relevant combinations of team competences depend on contextual factors. In particular, I find that different dimensions of team performance (e.g., being particularly creative or particularly efficient) require specific team competence profiles, but again, multiple profiles can lead to successful team performance.

Overall, this study enables managers to systematically understand and assess their often intuitive and configurational links between individuals' competences and successful job performance, and to analyze data on individuals' relevant competences, despite limited data sets. This then enables managers in effectively recruiting and staffing teams in organizations. Lastly, this study presents a novel methodological approach for companies that complements their existing methodological toolbox in data analysis, highlights the benefits of leveraging the rich data gathered within organizations, and paves the way for establishing HR analytics.

1.3.2 Leadership

The recent increase in publications on configurations in the leadership literature (e.g., Fischer & Sitkin, 2023; Howard et al., 2025; Johns, 2024; Lewellyn & Muller-Kahle, 2022; Scheuer et al., 2022) indicates a growing awareness of configurational thinking, which emphasizes that leadership characteristics, in general, and leadership behaviors, in particular, jointly determine leadership performance. Indeed, leadership research has a long tradition of arguing and theorizing in a configurational way (e.g., Meyer et al., 1993, p. 1189; Yukl, 2012). For example, Meyer et al. (1993) have pointed to a nonlinear relationship between multiple leadership configurations and leadership effectiveness. Similarly, Yukl (2012) has pointed to a comprehensive taxonomy in which meta-categories of leadership behavior do not necessarily add up to achieve leadership effectiveness. Instead, the interplay of distinct leadership behaviors determines leadership effectiveness.

Even though earlier publications have built on the idea of patterns or profiles (Baur et al., 2016; Foti et al., 2012), these authors mainly relied on quantitative, linear-additive methods such as latent profile analysis (LPA) or clustering techniques (Gabriel et al., 2018; Miller, 2018). But these methods do not account for complex causality. It took one decade for Yukl's taxonomy of leadership behaviors to be empirically tested with a configurational approach (Howard et al., 2025; Liu et al., 2023).

In another stream of development, recent publications by Johns (2024) and Gardner et al. (2024) emphasize the importance of context-specific research in future studies on leadership, which has so far been neglected due to a strong focus on universal leadership behaviors. Dating back to early research on contingency theories (e.g., Fiedler, 1967; Vroom & Yetton, 1973), the idea that effective leadership depends on different situational factors is not new, and early research has indicated that configurations of leadership behaviors are dependent on organizational contexts (Meyer et al., 1993). Researchers should "treat leadership as a multidimensional

phenomenon and analyze leaders' relations to their contexts and to the outcomes they achieve as configurational problems" (Meyer et al., 1993, p. 1189). However, in its origins, researchers examining situational leadership focused heavily on single effects and neglected patterns—the interactions between different leadership behaviors within distinct situations (Yukl, 2013, 179 f.). As a logical consequence, Johns (2024) revisits early arguments and demands that, despite scholars having examined situational leadership, a configurational approach using qualitative comparative analysis provides an adequate research approach and method for analyzing leadership in specific settings.

In this dissertation, **Paper 2** and **Paper 3** contribute to the ongoing development of leadership research by highlighting the inherent complex causality in leadership research and arguing for a case-based approach that focuses on individual leaders and their contexts of leadership (e.g., Howard et al., 2025; Johns, 2024; Lewellyn & Muller-Kahle, 2022; Scheuer et al., 2022).

First, in **Paper 2** we examine company-specific upward feedback as a specific context of leadership, to gain a deeper understanding of effective leadership behaviors for day-to-day leadership effectiveness. In the upward feedback, subordinates rated both leadership behaviors and leadership effectiveness across different dimensions. Despite a rich research history, there remains a lack of knowledge on effective leadership behaviors, which is caused by an overemphasis on universal leadership behaviors coupled with a neglect of situational leadership (Johns, 2024) and a proliferation of new and overlapping leadership styles (Eva et al., 2024; Fischer & Sitkin, 2023). While there has been much research *about* upward feedback (e.g., Atwater et al., 1995; Iqbal et al., 2015; Ramani et al., 2022; van Dierendonck et al., 2007; Walker & Smither, 1999), no researcher has examined data *from* upward feedback. Despite criticism regarding this type of data (e.g., a lack of validated measures), studies have shown that upward feedback influences future performance (e.g., Jhun et al., 2012; van Dierendonck et al., 2007), emphasizing the fact that upward feedback matters within companies and has real consequences.

Based on upward feedback from 50 managers in a German manufacturing company, we assigned company-specific leadership behaviors to a comprehensive leadership taxonomy by Yukl (2012), differentiating relations-oriented, task-oriented, change-oriented, and external leadership behaviors. Conducting a QCA with these conditions and different dimensions of leadership effectiveness, we find that combinations of leadership behaviors are context-dependent, being contingent on distinct dimensions of leadership effectiveness (e.g.,

contribution to firm performance vs. team leadership and motivation). In addition, the appraisals in the upward feedback are asymmetric and non-linear. For example, employees evaluate their team leader's effectiveness in terms of team leadership and motivation more critically than the team leader's contribution to firm performance.

Overall, Paper 2 demonstrates that data from upward feedback as practiced by companies can contribute to our knowledge on how profiles of leadership behaviors are linked to perceived leadership (in)effectiveness in different situations of day-to-day leadership.

Second, **Paper 3** examines (team) leadership in a different but increasingly indispensable organizational setting: short-term, virtual teams, which often lack formal leadership. Emergent leaders play an important role in managing team processes and thereby influence team performance.

Using fuzzy-set qualitative comparative analysis on 223 students across 54 teams in a time-critical problem-solving simulation, we analyze which combinations of motives and values are linked to leader emergence and which emergent leadership profiles, when combined with team processes, explain superior team performance.

As a result, we identify three emergent leadership profiles: the Conformist, the Pragmatist, and the Steward, each comprising distinct combinations of facets of psychological collectivism and motives. By applying QCA, we again find multiple leader profiles (i.e., configurations of conditions) that lead to the same outcome, i.e., leadership emergence. However, in this paper, we find that emergent leadership profiles are differently linked to team performance, such that teams show superior team performance when either the Steward (1) or the Pragmatist (combined with the absence of the Conformist; 2) are part of the team and when the team focuses on action rather than interpersonal processes.

To analyze which emergent leadership profile is linked to superior team performance, we developed a new variation of multilevel QCA based on Meuer and Rupietta (2017) that combines the individual and team levels. At the individual level, we examine the motive profiles of emergent leaders. At the team level, we investigate how these motive profiles interact with team processes to achieve superior team performance. As shown in Paper 1, QCA enables the identification of distinct ideal types—individuals characterized by specific combinations of characteristics. In Paper 3, we build on this idea by identifying the motive profiles. These are the individual-level QCA results, i.e., configurations of interpersonal attributes (facets of collectivism, power motive, and achievement motive) that combine to explain leadership

emergence. By utilizing the membership values of these configurations (c.f. Meuer & Rupietta, 2017), we are able to construct new conditions at the team level, where teams differ in the motive profiles of their team members. Depending on their respective motive profiles at the individual level, emergent leaders, combined with team processes, are differentially effective at the team level in leading their teams to successful performance. Thus, the methodology introduced in Paper 3 offers the possibility to take up the ideas of configurational typologies (Fiss, 2011), but introducing them as a higher-level construct in a second analysis (Meuer & Rupietta, 2017; Misangyi et al., 2017, p. 275).

To conclude, Paper 3 advances the understanding of leadership emergence in the context of virtual fluid teams. It shows that not all, but specific emergent leadership profiles contribute to superior team performance. This, in turn, influences the team performance when combined with specific team processes. In addition, by applying a multilevel configurational approach, we offer methodological advancement of QCA.

1.3.3 Resources

In terms of resources, an important and recent publication by Ong and Johnson (2023) has shed first light on the configurational links of theories examining resources. While there is a large literature that argues about the exact definition of resources (e.g., Halbesleben et al., 2014), a broad definition of resources that is goal-directed has been given by Halbesleben et al.: “We define resources as anything perceived by the individual to help attain his or her goals” (Halbesleben et al., 2014, p. 1338). Two influential theories in psychology and organizational behavior that build on the concept of resources are the broadly applied Conservation of Resources (COR) Theory (Hobfoll et al., 2018) and the subsequent work-related Job Demands-Resources (JDR) Theory (Bakker & Demerouti, 2007).

To bridge the disconnect between previous empirical models of the JDR and theoretical argumentations of complex causality on the relationship of resources and demands, Ong and Johnson (2023) have examined the configurational nature of the Job Demands-Resources theory from a person-centered theoretical perspective (Gabriel et al., 2018), applying QCA as the research method. Of particular relevance to this dissertation is their argument that buffering effects between job demands and specific resources can be examined by applying a configurational research approach. Because QCA examines combinations of conditions rather than individual conditions, it is better suited to analyze which resources are needed in combination with specific demands that produce high engagement, and, conversely, which

demands produce exhaustion despite the presence of specific resources. As described below in more detail, we find similar mechanisms for the Conservation of Resources Theory (COR) (Hobfoll et al., 2018) in Paper 4.

However, there are a multitude of resources that exist. Therefore, classifications of resources are important, which capture the context of the study design. For example, Caspi et al. (1998) defined resources in the context of labor market entry: individual resources and situational or contextual resources. Here, interrelations exist at multiple levels, requiring a multilevel QCA to analyze combinations of individual and situational resources.

In this dissertation, **Paper 4** and **Paper 5** contribute to the recent developments in the topic of resources. First, **Paper 4** analyzes the combinations of resources that are linked to a successful labor market entry. Building on COR theory, we examine how social, personal, and job resources are configured to explain a successful labor market entry. Specifically, we examine if and how social and job resources can compensate for a lack of personal resources.

Applying QCA on a combined, longitudinal data set of survey data on a sample of young people during their apprenticeship in Switzerland and administrative register data on these individuals' employment spells in the first six years after entering the labor market, we find combinations of human, personal, social capital, and energy resources that determine a successful labor market entry. Additionally, a lack of personal or parental resources can be compensated for by a positive apprentice-supervisor relationship, emphasizing the firm's role in enabling successful labor market entry. Our findings demonstrate that, similar to the JDR model of Ong and Johnson (2023), COR theory functions as a meta-theory with many characteristics conducive to configurational theorizing.

Overall, by advancing COR theory in this way, Paper 4 contributes to the ongoing discussion on configurational theorizing, particularly highlighting the importance of adopting a more nuanced understanding of the complex interplay of determinants for labor market success.

In **Paper 5**, we introduce the two-step QCA as a variant of QCA that is better suited to modelling and analyzing resources at different levels of analysis. Two-step QCA differentiates between proximate and remote conditions based on a continuum of causal relevance (Schneider & Wagemann, 2006). Proximate conditions refer to those that individuals more easily influence, while remote conditions refer to those that are outside the direct influence of individuals and are therefore referred to as context factors (Schneider & Wagemann, 2006, p. 760).

Using employee survey data and the AMO framework as a meta-model, this study examines the nested and configurational nature of proximate-personal (*ability* and *motivation*) and remote-organizational factors (*opportunity*) contributing to informal innovative employee behavior—i.e., workarounds. The results show that in terms of organizational factors, it is the absence of at least one opportunity factor that is sufficient for the occurrence of workarounds. In contrast, given this organizational environment, employees executing workarounds are marked by personal factors that entail both the presence of ability and motivation.

By applying the two-step QCA to an illustrative example in Paper 5, we argue that the AMO framework can be understood as a combination of proximate ability and motivation factors, along with remote opportunity factors, to explain informal innovative employee behavior (*workarounds*). Similarly to the definition of resources, the AMO factors are understood to “provide a predictive measure of individual or aggregated performance” (Bos-Nehles et al., 2023, p. 726). Whereas first literature had already theorized and empirically tested the configurational nature of the AMO framework (Meuer, 2017), we additionally consider multiple levels, including *individual* ability and motivation factors, as well as *organizational* opportunity factors.

Overall, this paper highlights the relevance of two-step QCA as a methodology that supports configurational theorizing across multiple levels, and it provides best practices for applying the two-step QCA. This enables researchers to map and analyze factors theorized to lie on a continuum.

1.4 Discussion and lessons learned

Since its emergence in the 1980s, QCA has developed into a widely recognized research method across diverse research disciplines and has secured, amongst other disciplines, a firm place within the broader field of human resource management. This dissertation, through five research articles, has illustrated how QCA can be effectively applied to individual-level data and theories, where the individual is seen as the unit of observation. Thereby it contributes to a growing methodological trend in the field of human resource management that reduces a persisting mismatch of theory and methods. Accordingly, the five research papers apply current methodological state-of-the-art techniques (Dusa, 2019; Oana et al., 2021) and offer suggestions on how to conduct underexplored multilevel QCA and robustness checks.

Three lessons learned from this dissertation should be particularly highlighted. First, many theories and concepts in human resources are argued to be based on complex causality, where

regression-based methods often fall short in capturing the interrelations among variables. However, there have been few applications of QCA to date, particularly at the individual level, and multilevel extensions that combine conditions across multiple levels have been largely absent. In terms of *competences*, the results of Paper 1, 2, and 3 highlight how individuals can be characterized by distinct profiles. Whereas regression-based methods, such as LPA, also cluster individuals into profiles, QCA has the advantage of analyzing which profile is consistently linked with a performance measure (Gabriel et al., 2018). Similarly, regarding *leadership*, individual leaders can be categorized into leader types. The idea is not necessarily new, as leadership styles are a cornerstone in leadership research (e.g., Avolio et al., 2009). However, by applying QCA in Paper 2 and 3, we are able to understand leadership profiles depending on specific context, and especially which leadership profiles can be consistently linked toward successful performance in day-to-day leadership situations (Paper 2, e.g., high team leadership and motivation) or in fluid, virtual teams (Paper 3, leadership emergence in combination with team processes). Thus, QCA, both as a research approach and as a research method, solves a current challenge in previous leadership research (Johns, 2024). At the same time, we advanced multilevel QCA to account for nested data, where team performance is explained by combinations of individual-level leadership attributes and team-level processes. Lastly, in terms of *resources*, broad meta-theories such as COR theory in Paper 4 or the AMO framework in Paper 5 show how QCA is better able to consider the interrelations among a multitude of potentially relevant variables. Because contextual factors often influence individuals, two-step QCA is particularly productive in capturing contingency (Delery & Doty, 1996). As a result, we were able to consider 5 resources in a one-step QCA in Paper 4, and 9 organizational and personal factors with two-step QCA in Paper 5. With 9 conditions, or variables, regression-based methods would reach their methodological limits.

Second, the applications of QCA allow for the identification of patterns for practically relevant management phenomena that are often marked by messy (company) data and in small to medium sample sizes. In Paper 2, we find patterns of leadership behavior even with a small sample size of 50 managers. Whereas the data in Paper 2 stems from a company-specific upward feedback, we were able to translate company-specific leadership behavior into a broad meta-framework, bridging a theory-practitioner gap. To this end, I also introduce QCA as a configurational approach, particularly for practitioners who often make decisions based on intuitive thinking. Small sample sizes also play an important role in multilevel analyses, as the data is aggregated to a higher level. In Paper 1 and 3, individual-level data is aggregated to the

team level. In Paper 1, 203 team members are nested in 30 teams, whereas in Paper 3, 223 individuals are nested in 54 teams. Despite such small sample sizes, we were able to identify consistent patterns.

Lastly, QCA is a case-oriented method, and therefore, results are susceptible to small changes in the model specifications. This, in turn, requires robustness checks that systematically account for (multiple) changes. Whereas most researchers change individual parameters to identify if and how configurations change, Oana and Schneider (2024) have developed a complex robustness test protocol that has rarely been used in practice. An important element of this protocol, which has been applied in two research papers (Paper 4 and 5), is the calculation of a “robust core”, which is the intersection of multiple QCA solutions (the original solution of the analysis together with the solutions generated by changing individual parameters). In this way, I hope to inspire future research to engage with this approach to robustness checks.

1.5 Limitations and future research

Some remaining issues persist regarding the application of QCA that can serve as starting points for future research. First, the five papers in this dissertation examine various contexts with very specific samples (e.g., Paper 4 examines the Swiss labor market). While the results of the analysis are robust for the settings in which it was conducted, future research interested in the generalizability of the results should conduct further analyses in additional settings. For example, Ong and Johnson (2023) conducted three studies to examine the configurational properties of the JDR model. Second, the five research papers pursued an inductive research design. While we found configurational theorizing in past research on the topics of competences, leadership, and resources, it was difficult to formulate specific hypotheses. Nonetheless, the five research papers identified important configurations that can serve as starting points for future deductive QCA research. For example, Oana et al. (2021) provide a method and R code to analyze the intersection between theorized configurations and empirically observed configurations. Lastly, while multilevel QCA approaches enable researchers to consider additional conditions in their research models, the number of conditions in a (multilevel) analysis remains limited. Therefore, the conditions chosen for an analysis should be theoretically well grounded. Because this can be a challenging factor in conducting two-step QCA, we experimented in an early version of Paper 5 with the calculation of the Banzhaf index, a parameter for the explanatory power of a single explanatory factor, to reduce theoretically possible conditions to those conditions that show a particularly strong link with the outcome of

interest (Haake & Schneider, 2024). Future research conducting inductive QCA might therefore consider calculating the Banzhaf index to compare theoretically relevant and empirically relevant conditions.

1.6 Conclusion

This dissertation is dedicated to the methodological advancement of Qualitative Comparative Analysis, especially in understanding how individual-level data and multilevel data can be better theorized and analyzed applying QCA, which is in line with a stronger focus on an appropriate theory-method-data link (Bliese et al., 2024). Both researchers and practitioners can benefit from a configurational approach where phenomena in human resource management are captured by complex causality. To this end, the five papers in this dissertation serve as a starting point for future researchers and practitioners in understanding and applying QCA in a wide range of practically relevant contexts.

References

- Atwater, L., Roush, P., & Fischtal, A. (1995). The influence of upward feedback on self- and follower ratings of leadership. *Personnel Psychology*, 48(1), 35–59. <https://doi.org/10.1111/j.1744-6570.1995.tb01745.x>
- Avolio, B. J., Walumbwa, F. O., & Weber, T. J. (2009). Leadership: Current theories, research, and future directions. *Annual Review of Psychology*, 60, 421–449. <https://doi.org/10.1146/annurev.psych.60.110707.163621>
- Backes-Gellner, U., Kluike, M., Pull, K., Schneider, M. R., & Teuber, S. (2016). Human resource management and radical innovation: a fuzzy-set QCA of US multinationals in Germany, Switzerland, and the UK. *Journal of Business Economics*, 86(7), 751–772. <https://doi.org/10.1007/s11573-015-0803-3>
- Bader, A. K., Kemper, L. E., & Froese, F. J. (2019). Who promotes a value-in-diversity perspective? A fuzzy set analysis of executives' individual and organizational characteristics. *Human Resource Management*, 58(2), 203–217. <https://doi.org/10.1002/hrm.21946>
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328. <https://doi.org/10.1108/02683940710733115>
- Bartram, D. (2005). The Great Eight competencies: A criterion-centric approach to validation. *Journal of Applied Psychology*, 90(6), 1185.
- Baur, J. E., Parker Ellen, B., Buckley, M. R., Ferris, G. R., Allison, T. H., McKenny, A. F., & Short, J. C. (2016). More than one way to articulate a vision: A configurations approach to leader charismatic rhetoric and influence. *The Leadership Quarterly*, 27(1), 156–171. <https://doi.org/10.1016/j.leaqua.2015.08.002>
- Blickle, G., John, J., Ferris, G. R., Momm, T., Liu, Y., Haag, R., Meyer, G., Weber, K., & Oerder, K. (2012). Fit of Political Skill to the Work Context: A Two-Study Investigation. *Applied Psychology*, 61(2), 295–322. <https://doi.org/10.1111/j.1464-0597.2011.00469.x>
- Bliese, P. D., Certo, S. T., Smith, A. D., Wang, M., & Gruber, M. (2024). Strengthening theory–methods–data links. *Academy of Management Journal*, 67(4), 893–902. <https://doi.org/10.5465/amj.2024.4004>

- Bos-Nehles, A., Renkema, M., & Janssen, M. (2017). HRM and innovative work behaviour: A systematic literature review. *Personnel Review*, 46(7), 1228–1253. <https://doi.org/10.1108/PR-09-2016-0257>
- Bos-Nehles, A., Townsend, K., Cafferkey, K., & Trullen, J. (2023). Examining the ability, motivation and opportunity (AMO) framework in HRM research: Conceptualization, measurement and interactions. *International Journal of Management Reviews*, 25(4), 725–739. <https://doi.org/10.1111/ijmr.12332>
- Boyatzis, R. E. (1982). *Competent manager: A model for effective performance*. Wiley.
- Campbell, J. T [Joanna T.], Bilgili, H., Crossland, C., & Ajay, B. (2023). The background on executive background: An integrative review. *Journal of Management*, 49(1), 7–51. <https://doi.org/10.1177/01492063221120392>
- Caspi, A., Wright, B. R. E., Moffitt, T. E., & Silva, P. A. (1998). Early failure in the labor market: Childhood and adolescent predictors of unemployment in the transition to adulthood. *American Sociological Review*, 63(3), 424. <https://doi.org/10.2307/2657557>
- Conger, J. A., & Ready, D. A. (2004). Rethinking leadership competencies. *Leader to Leader*(32), 41–47.
- Crilly, D. (2013). Chapter 8 Corporate social responsibility: A multilevel explanation of why managers do good. In P. C. Fiss, B. Cambré, & A. Marx (Eds.), *Research in the Sociology of Organizations. Configurational Theory and Methods in Organizational Research* (Vol. 38, pp. 181–204). Emerald Group Publishing Limited. [https://doi.org/10.1108/S0733-558X\(2013\)0000038012](https://doi.org/10.1108/S0733-558X(2013)0000038012)
- de Vos, A., & Cambré, B. (2017). Career management in high-performing organizations: A set-theoretic approach. *Human Resource Management*, 56(3), 501–518. <https://doi.org/10.1002/hrm.21786>
- Delery, J. E., & Doty, D. H. (1996). Modes of Theorizing in Strategic Human Resource Management: Tests of Universalistic, Contingency, and Configurational Performance Predictions. *Academy of Management Journal*, 39(4), 802–835. <https://doi.org/10.5465/256713>

- Doblinger, M. (2022). Individual competencies for self-managing team performance: A systematic literature review. *Small Group Research*, 53(1), 128–180. <https://doi.org/10.1177/10464964211041114>
- Dusa, A. (2019). *QCA with R*. Springer International Publishing.
- Fiedler, F. E. (1967). *A theory of leadership effectiveness*. McGraw-Hill series in management. McGraw-Hill.
- Fischer, T., & Sitkin, S. B. (2023). Leadership styles: A comprehensive assessment and way forward. *Academy of Management Annals*, 17(1), 331–372. <https://doi.org/10.5465/annals.2020.0340>
- Fiss, P. C. (2007). A set-theoretic approach to organizational configurations. *Academy of Management Review*, 32(4), 1180–1198. <https://doi.org/10.5465/amr.2007.26586092>
- Fiss, P. C. (2011). Building better causal theories: A fuzzy set approach to typologies in organization research. *Academy of Management Journal*, 54(2), 393–420. <https://doi.org/10.5465/amj.2011.60263120>
- Foti, R. J., Bray, B. C., Thompson, N. J., & Allgood, S. F. (2012). Know thy self, know thy leader: Contributions of a pattern-oriented approach to examining leader perceptions. *The Leadership Quarterly*, 23(4), 702–717. <https://doi.org/10.1016/j.leaqua.2012.03.007>
- Gabriel, A. S., Campbell, J. T. [Joanna Tochman], Djurdjevic, E., Johnson, R. E., & Rosen, C. C. (2018). Fuzzy profiles: Comparing and contrasting latent profile analysis and fuzzy set qualitative comparative analysis for person-centered research. *Organizational Research Methods*, 21(4), 877–904. <https://doi.org/10.1177/1094428117752466>
- Gardner, W. L., Hanna, A. A., Noghani, F., & Coglisier, C. C. (2024). Leadership emergence: Answering the “how” and “why” questions by considering levels of analysis and form of emergence. *Annual Review of Organizational Psychology and Organizational Behavior*, 11(1), 139–164. <https://doi.org/10.1146/annurev-orgpsych-110721-040430>
- Goertz, G., & Mahoney, J. (2013). *A tale of two cultures*. Princeton University Press. <https://doi.org/10.1515/9781400845446>

- Greckhamer, T., Furnari, S., Fiss, P. C., & Aguilera, R. V. (2018). Studying configurations with qualitative comparative analysis: Best practices in strategy and organization research. *Strategic Organization*, 16(4), 482–495. <https://doi.org/10.1177/1476127018786487>
- Greckhamer, T., Misangyi, V. F., Elms, H., & Lacey, R. (2008). Using qualitative comparative analysis in strategic management research. *Organizational Research Methods*, 11(4), 695–726. <https://doi.org/10.1177/1094428107302907>
- Haake, C.-J., & Schneider, M. R. (2024). Playing games with QCA: The Banzhaf index as a context-sensitive measure of explanatory power in international management. *Journal of International Management*, 30(2), 101065. <https://doi.org/10.1016/j.intman.2023.101065>
- Halbesleben, J. R. B., Neveu, J.-P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the “COR”. *Journal of Management*, 40(5), 1334–1364. <https://doi.org/10.1177/0149206314527130>
- Holland, J. L. (1973). *Making vocational choices: A theory of vocational personalities and work environments*. Psychological Assessment Resources.
- Howard, J. L., Eva, N., Leroy, H., Stramand, M., Zheng, Y., & Liden, R. (2025). A configural approach to leadership using latent profile analysis: A key to addressing construct proliferation. *European Journal of Work and Organizational Psychology*, 34(5), 485–501. <https://doi.org/10.1080/1359432X.2025.2531926>
- Iqbal, M. Z., Akbar, S., & Budhwar, P. (2015). Effectiveness of performance appraisal: An integrated framework. *International Journal of Management Reviews*, 17(4), 510–533. <https://doi.org/10.1111/ijmr.12050>
- Jhun, S., Bae, Z.-T., & Rhee, S.-Y. (2012). Performance change of managers in two different uses of upward feedback: A longitudinal study in Korea. *The International Journal of Human Resource Management*, 23(20), 4246–4264. <https://doi.org/10.1080/09585192.2012.657000>
- Johns, G. (2024). The context deficit in leadership research. *The Leadership Quarterly*, 35(1), 101755. <https://doi.org/10.1016/j.leaqua.2023.101755>
- Ketchen, D. J. (2013). Chapter 13 We Try Harder: Some Reflections on Configurational Theory and Methods. In P. C. Fiss, B. Cambré, & A. Marx (Eds.), *Research in the Sociology of*

- Organizations. Configurational Theory and Methods in Organizational Research* (Vol. 38, pp. 303–309). Emerald Group Publishing Limited. [https://doi.org/10.1108/S0733-558X\(2013\)0000038017](https://doi.org/10.1108/S0733-558X(2013)0000038017)
- Le Deist, F. D., & Winterton, J. (2005). What is competence? *Human Resource Development International*, 8(1), 27–46. <https://doi.org/10.1080/1367886042000338227>
- Lee Whittington, J., McKee, V., Goodwin, V. L., & Greg Bell, R. (2013). Chapter 12 Applying fuzzy set methodology to evaluate substitutes for leadership. In P. C. Fiss, B. Cambré, & A. Marx (Eds.), *Research in the Sociology of Organizations. Configurational Theory and Methods in Organizational Research* (Vol. 38, pp. 279–302). Emerald Group Publishing Limited. [https://doi.org/10.1108/S0733-558X\(2013\)0000038016](https://doi.org/10.1108/S0733-558X(2013)0000038016)
- Lewellyn, K. B., & Muller-Kahle, M. I. (2022). A configurational exploration of how female and male CEOs influence their compensation. *Journal of Management*, 48(7), 2031–2074. <https://doi.org/10.1177/01492063211027225>
- Liu, B., Cui, Z., & Nanyangwe, C. N. (2023). How line-manager leadership styles and employee-perceived HRM practices contribute to employee performance: A configurational perspective. *Leadership & Organization Development Journal*, 44(1), 156–171. <https://doi.org/10.1108/LODJ-04-2022-0202>
- Mathieu, J. E., Gallagher, P. T., Domingo, M. A., & Klock, E. A. (2019). Embracing complexity: Reviewing the past decade of team effectiveness research. *Annual Review of Organizational Psychology and Organizational Behavior*, 6(1), 17–46. <https://doi.org/10.1146/annurev-orgpsych-012218-015106>
- Mathieu, J. E., Tannenbaum, S. I., Donsbach, J. S., & Alliger, G. M. (2014). A Review and Integration of Team Composition Models. *Journal of Management*, 40(1), 130–160. <https://doi.org/10.1177/0149206313503014>
- Meuer, J. (2017). Exploring the complementarities within high-performance work systems: A set-theoretic analysis of UK firms. *Human Resource Management*, 56(4), 651–672. <https://doi.org/10.1002/hrm.21793>
- Meuer, J., & Fiss, P. C. (2020). Qualitative comparative analysis in business and management research. *Oxford Research Encyclopedia of Business and Management*. Advance online publication. <https://doi.org/10.1093/acrefore/9780190224851.013.229>

- Meuer, J., & Rupietta, C. (2017). Integrating QCA and HLM for multilevel research on organizational configurations. *Organizational Research Methods*, 20(2), 324–342. <https://doi.org/10.1177/1094428116665465>
- Meyer, A. D., Tsui, A. S., & Hinings, C. R. (1993). Configurational approaches to organizational analysis. *Academy of Management Journal*, 36(6), 1175–1195.
- Miller, D. (2018). Challenging trends in configuration research: Where are the configurations? *Strategic Organization*, 16(4), 453–469. <https://doi.org/10.1177/1476127017729315>
- Misangyi, V. F., Greckhamer, T., Furnari, S., Fiss, P. C., Crilly, D., & Aguilera, R. (2017). Embracing causal complexity: The emergence of a neo-configurational perspective. *Journal of Management*, 43(1), 255–282. <https://doi.org/10.1177/0149206316679252>
- Mubarak, N., Khan, J., Yasmin, R., & Osmadi, A. (2021). The impact of a proactive personality on innovative work behavior: The role of work engagement and transformational leadership. *Leadership & Organization Development Journal*, 42(7), 989–1003. <https://doi.org/10.1108/LODJ-11-2020-0518>
- North, K., Reinhardt, K., & Sieber-Suter, B. (2018). *Kompetenzmanagement in der Praxis: Mitarbeiterkompetenzen systematisch identifizieren, nutzen und entwickeln. Mit vielen Praxisbeispielen* (3. Auflage). Springer.
- Oana, I.-E., & Schneider, C. Q. (2024). A robustness test protocol for applied QCA: Theory and R software application. *Sociological Methods & Research*, 53(1), 57–88. <https://doi.org/10.1177/00491241211036158>
- Oana, I.-E., Schneider, C. Q., & Thomann, E. (2021). *Qualitative comparative analysis using R*. Cambridge University Press. <https://doi.org/10.1017/9781009006781>
- Ong, W. J., & Johnson, M. D. (2023). Toward a configural theory of job demands and resources. *Academy of Management Journal*, 66(1), 195–221. <https://doi.org/10.5465/amj.2020.0493>
- Park, Y., Fiss, P. C., & El Sawy, O. A. (2020). Theorizing the multiplicity of digital phenomena: The ecology of configurations, causal recipes, and guidelines for applying QCA. *MIS Quarterly*, 44(4), 1493–1520. <https://doi.org/10.25300/MISQ/2020/13879>
- Ragin, C. C. (1987). *The comparative method: Moving beyond qualitative and quantitative strategies*. University of California Press.

- Ragin, C. C. (2000). *Fuzzy-set social sciences*. University of Chicago Press.
- Ragin, C. C. (2008). *Redesigning social inquiry: Fuzzy sets and beyond*. University of Chicago Press.
- Ramani, S., Lee-Krueger, R. C. W., Des Roze Ordons, A., Trier, J., Armson, H., Könings, K. D., & Lockyer, J. M. (2022). Only when they seek: Exploring supervisor and resident perspectives and positions on upward feedback. *The Journal of Continuing Education in the Health Professions*, 42(4), 249–255. <https://doi.org/10.1097/CEH.0000000000000417>
- Şahin, F., Karadağ, H., & Tuncer, B. (2019). Big five personality traits, entrepreneurial self-efficacy and entrepreneurial intention. *International Journal of Entrepreneurial Behavior & Research*, 25(6), 1188–1211. <https://doi.org/10.1108/IJEBr-07-2018-0466>
- Scheuer, C.-L., Loughlin, C., & Woodside, A. G. (2022). Can you always catch more flies with honey than with vinegar? Applying an asymmetric approach to transformational leadership research. *Journal of Business and Psychology*, 37(1), 191–213. <https://doi.org/10.1007/s10869-021-09737-4>
- Schneider, C. Q., & Wagemann, C. (2006). Reducing complexity in qualitative comparative analysis (QCA): Remote and proximate factors and the consolidation of democracy. *European Journal of Political Research*, 45(5), 751–786. <https://doi.org/10.1111/j.1475-6765.2006.00635.x>
- Schneider, C. Q., & Wagemann, C. (2012). *Set-theoretic methods for the social sciences: A guide to qualitative comparative analysis*. Cambridge University Press. <https://doi.org/10.1017/CBO9781139004244>
- Schulze-Bentrop, C. (2013). *Qualitative comparative analysis (QCA) and configurational thinking in management studies*. PL Academic Research.
- Shipton, H., West, M. A., Dawson, J., Birdi, K., & Patterson, M. (2006). HRM as a predictor of innovation. *Human Resource Management Journal*, 16(1), 3–27. <https://doi.org/10.1111/j.1748-8583.2006.00002.x>
- Short, J. C., Payne, G. T., & Ketchen, D. J. (2008). Research on organizational configurations: Past accomplishments and future challenges. *Journal of Management*, 34(6), 1053–1079. <https://doi.org/10.1177/0149206308324324>

- van Dierendonck, D., Haynes, C., Borrill, C., & Stride, C. (2007). Effects of upward feedback on leadership behaviour toward subordinates. *Journal of Management Development*, 26(3), 228–238. <https://doi.org/10.1108/02621710710732137>
- Vroom, V. H., & Yetton, P. W. (1973). *Leadership and decision making*. Univ. of Pittsburgh Pr.
- Walker, A. G., & Smither, J. W. (1999). A five-year study of upward feedback: What managers do with their results matters. *Personnel Psychology*, 52(2), 393–423. <https://doi.org/10.1111/j.1744-6570.1999.tb00166.x>
- Yukl, G. (2012). Effective leadership behavior: What we know and what questions need more attention. *Academy of Management Perspectives*, 26(4), 66–85. <https://doi.org/10.5465/amp.2012.0088>
- Yukl, G. (2013). *Leadership in organizations* (8. ed). Pearson.

