CHAPTER 14

CONCLUSION: THE PATH FORWARD

Bart Cambré, Peer C. Fiss and Axel Marx

ABSTRACT

In this concluding chapter, we look ahead to future theoretical and methodological directions that emerge from the contributions in this volume and that carry the potential to enrich contemporary organizational research. We furthermore point to some issues that remain unsolved and need to be addressed in future research to further establish the configurational approach in the field of organizational studies, such as the growing need for homogeneity in how the analysis is conducted and results are presented. We argue that the momentum of the configurational approach in organizational research is strong, but that important challenges remain.

Keywords: Configurational theory; configurational methods; set-theory; Qualitative Comparative Analysis (QCA); management; organization studies.

In our introduction to this volume, we noted that – several decades after the emergence of the configurational perspective in organization studies – the theory of configurations still requires further development, even as empirical

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research on configurations is finally beginning to deliver on its promise. In this concluding chapter, our aim is to attempt a look forward, both theoretically and methodologically. Our focus here lies on what combines the contributions of this volume, how the approach taken here can enrich organizational research, and what future directions appear perhaps most promising. We furthermore point to some issues that remain unsolved and need to be addressed in future research to further establish the configurational approach in the field of organizational studies.

THEORETICAL CONSIDERATIONS

Configurational thinking is of course not restricted to the perspective outlined here. In fact, configurational arguments arguably pervade most organizational theories since they allow researchers to study characteristics that can be considered core to the (theoretical) notion of organizing. Perhaps most prominently, configurational thinking forces us to move toward understanding how distinct characteristics jointly cause an outcome. For instance, Mintzberg (1979) developed a configurational form of structural contingency theory by considering the main coordination mechanisms as core elements of organizing that are found in different combinations in different organizational forms. Two other properties of configurations that are core to contemporary thinking about organizations are the notions of nonlinearity and equifinality (e.g., Meyer, Tsui, & Hinings, 1993). Nonlinearity refers to the fact that "variables found to be positively related in one configuration may be unrelated or even inversely related in another" (Meyer et al., 1993, p. 1178). As such, the concept of nonlinearity is not new (see for instance all U-shaped relations in standard regression analysis), but it allows organizational scholars to think further than a two- or three-way interaction and to move beyond the positive or negative net-effects of variables. The notion of equifinality refers to the fact that "a system can reach the same final state from different initial conditions and by a variety of different paths" (Katz & Kahn, 1978, p. 30).

The configurational building blocks outlined here are thus present in one form or another in most organization theories. While one might argue that the configurational perspective at this time presents more of an analytic approach than a substantive theory in itself, the development outlined in the current volume would suggest that the boundaries are beginning to blur. This opens up the potential to the further development of existing (and new) organization theories and broadens the field of applications, allowing

scholars in multiple domains of organizational and management research to adopt the configurational approach in their field of study. At the same time, this development calls for a renaissance of configurational thinking about organizations, to reorient current theoretical conceptualization toward the domain of configurations. Indeed, Grandori and Furnari (Chapter 4) suggest that a configurational approach may be helpful to constructing significant "missing pieces" in organization theory.

The chapters of this volume provide ample examples of new forms of theorizing that combines configurational thinking with substantive theory about their respective phenomena. For instance, starting with an essential issue of configurational thinking, Jackson and Ni (Chapter 6) explore the field of complementarities and draw attention to how organizational structures, practices, and institutions have interdependent effects that call for a configurational approach. To study their phenomenon of interest, they point out, researchers need to go beyond the traditional bivariate relationships associated with organizational elements and study the complex interplay of structures and practices from an equifinal and configurational point of view. Similarly, to evaluate the effectiveness of corporate governance practices, a complex multilevel approach is often recommended, but few studies analyze practices in conjunction with each other and on multiple levels. The configurational approach can in fact "contextualize" practices, allowing researchers to examine them jointly instead of independently. In this regards, Bell, Aguilera, and Filatotchev (Chapter 7) reveal how firm-level governance practices interact with each other as well as with macro institutions. Traditional multivariate econometric techniques cannot fully analyze this complex interaction, but new theory about corporate governance practices will also be required.

Another example of how a configurational approach may be used to identify the combined influence of effects at multiple levels of analysis is the contribution by Crilly (Chapter 8). He investigates corporate social responsibility and more specifically how individual psychology and social context simultaneously affect the managers response to pressures for social responsibility, showing how effects at any level can depend on effects at all other levels. A similar insight is offered by Park and El Sawy (Chapter 9), who demonstrate the value of a configurational approach for inquiring the holistic nature of digital ecodynamics, a field marked by mutual causality, synergetic effects, and nonlinear changes. Their fuzzy set analysis of digital ecodynamics combines a more textured understanding of the causal complexity with a holistic perspective on their phenomenon of interest. Indeed, the notion of digital ecodynamics might be perhaps best understood

as a powerful example of novel substantive theory that is truly configurational in nature and incorporates many of the elements we have discussed above.

As shown by Raab, Lemaire, and Provan (Chapter 10), a configurational approach may furthermore offer novel ways to study "whole networks" of organizations. The complexity of their nested constellations – organizations within networks within broader environmental contexts that jointly contribute to the outcome – is hard to grasp with more traditional techniques such as hierarchical clustering and multilevel analysis, but it is also difficult to conceptualize theoretically without the conceptual tools of the set-theoretic approach (Lacey & Fiss, 2009). A similar pattern of causal complexity is the study of Pajunen and Airo (Chapter 11), who investigate the causal complexity of institutional and country characteristics on strategic decision making from a configurational perspective. The effect of such country characteristics and institutional conditions are likely to depend on the presence or absence of the effects of other conditions. Focusing mainly on the net effects may produce an incomplete understanding of whether or not a particular location is appropriate for a firm to deploy activities.

While these examples have shown the effect of configurations beyond the firm boundaries, Whittington, McKee, Goodwin, and Bell (Chapter 12) focus on intra-organizational processes in their analysis of so-called "bundles" or configurations of leadership, task, and motivational factors that impact employee attitude and even performance outcomes. While the level of analysis is a different one, the insight offered is again powerful in that the authors demonstrate how the presence, and sometimes absence, of leadership still enable firms to achieve reasonable performance outcomes by employees.

METHODOLOGICAL CONSIDERATIONS

The chapters of this volume use both crisp and fuzzy set QCA. While there appears to be a preference for crisp set QCA among small-*N* researchers and a preference for fuzzy set QCA among large-*N* researchers, we do not expect one of them to become the dominating approach. Both have their distinctive strengths, and there are vigorous attempts to optimize both methods and further strengthen the quality of the tools and measures. For instance, Marx, Cambré, and Rihoux (Chapter 2) discuss how to address two of the most important critiques toward csQCA. First, building on Marx (2010), they focus on the assumption of naturally occurring contradictions and argue that researchers should balance conditions and cases according to

established benchmarks (Marx & Dusa, 2011). Adjusting the proportion of conditions over cases according to these benchmarks overcomes the issue that QCA is not able to distinct real from random data. With regard to the second critique, the sensitivity to individual cases, these authors discuss several scenarios and show that only in specific circumstances the sensitivity to individual cases is problematic.

Another remaining challenge is the analysis of temporally ordered configurations. As Hak, Jaspers, and Dul (Chapter 5) point out, many organizational theories are inherently temporal. Yet, this temporal nature is frequently not taken into account in empirical analyses. Even the regular configurational approach shows a "temporality" problem (Rihoux & Ragin, 2009) with its current difficulties in tracking shifting configurations over time and explaining the "how" of causal configurations (Park and El Sawy, Chapter 9). While temporal qualitative comparative analysis (TQCA) aims to address these issues, it faces its own considerable technical limitations. In TQCA, co-occurrences ("ties") are difficult to code and a code cannot be assigned to a pair of which a condition is missing. In response, Hak, Jaspers, and Dul promote the use of Necessary Condition Analysis (NCA or TNCA for the temporal approach) to study the temporal sequences of conditions between cases. Based on a truth-table, the analysis resembles the QCA-approach, but the focus is on searching for necessary instead of sufficient configurations, making it a somewhat different approach to be applied in time-related and longitudinal configurational research. Clearly, important challenges remain in developing a truly dynamic configurational approach.

An important recent methodological development is the application of QCA to large-*N* situations. In line with Gerring (2001), Greckhamer, Misangyi, and Fiss (Chapter 3) hold that large-*N* QCA can also be used for hypothesis testing and theoretical deduction, thus going beyond the traditional approach of using small-*N* QCA for theory building. From this perspective, large-*N* QCA can be considered as an alternative to the widespread general linear approaches to studying organizational phenomena. This allows the researcher to study configurational "recipes" instead of the common focus on net-effects and individual causes. However, as far as external validity (generalization) of the findings is concerned, challenges remain, as suggested by Park and El Sawy (Chapter 9), and perhaps only "modest" generalizations can currently be achieved. However, QCA might be applied both as a substitute and as a complement to linear approaches in large-*N* organizational research. If we consider a configurational analysis as a stand-alone alternative (substitute) to regression techniques, it allows

researchers to make the leap from net-effect thinking to configurational thinking, which is more in line with some theoretical considerations of organizational research. On the other hand, many authors in this volume (Greckhamer, Misangyi, and Fiss, Chapter 3; Jackson and Ni, Chapter 6; Pajunen and Airo, Chapter 11; Whittington, McKee, Goodwin, and Bell, Chapter 12) consider the configurational approach using QCA not as a substitute but as an important alternative to more traditional linear techniques. Of course, QCA and correlational methods are very different in their goals and assumptions (Ragin, 2008). For instance, the goal of QCA is not to isolate the net independent effect of each condition on an outcome (Ragin, 2006). For much empirical research in management and organization studies, calculating the net effect and variances remains one of the key concerns. Considered as a complement of conventional regression analysis, QCA allows mixed-method research that employs the strength of each approach. In this view (see also Greckhamer, Misangyi, and Fiss, Chapter 3), a statistical analysis can be complemented with a QCA-analysis (Fiss, Sharapov, & Cronqvist, 2013). Similarly, the researcher might consider the two-step approach suggested by Jackson and Ni (Chapter 6), combining statistical analysis of net effects with set-theoretical analysis. Here, a preliminary statistical analysis is used to narrow down the number of conditions to be entered into a set-theoretical analysis.

Finally, the analysis of multilevel issues in organizational research can benefit from a configurational approach (Greckhamer, Misangyi, Elms, & Lacey, 2008; Lacey & Fiss, 2009). For instance, QCA can bridge levels of analysis by combining behavioral variables at micro level with characteristics at meso (e.g., organization) and macro level (e.g., institutional, countries). Hence, instead of controlling for effects at other levels to measure the net effects at a given level, as in a multilevel regression analysis, a configurational approach is explicitly interested in the combined effects. In addition, a QCA approach does not require units at lower levels to be fully nested within higher level units, allowing for the application of QCA to a wider range of multilevel, dynamic phenomena where membership in different levels may be partial and fleeting.

THE PATH FORWARD

The configurational approach presented in this volume holds the promise of understanding organizations in a more complex, systematic way more in line

with the notion that organizations "are best understood as clusters of interconnected structures and practices, rather than as modular or loosely coupled entities whose components can be understood in isolation" (Fiss, 2007, p. 1180). It is evident that the emergence of a set-theoretic approach to configurations presents a considerable leap forward and many innovations are currently being developed (Rihoux & Marx, 2013; Schneider & Wagemann, 2012; Thiem & Dusa, 2012). However, considerable challenges still remain, both with respect to configurational theorizing and to configurational methodology.

Configurational theorizing became less common with the rise of the correlation studies and the focus on net-effects and variances rather than on configurations and causal complexity – it is time to take the notion of configurations seriously again. One important path for doing so continues the tradition of typology research in organization studies, an approach that has led to some of the most influential and widely validated theories (e.g., Miles & Snow, 1978). However, beyond typologies, there is also a need for a more general configurational theory of organizations. Our hope is that the seeds have been planted.

With respect to configurational analysis, QCA can be considered the most widespread analysis technique to analyze configurational systems. Some of the critiques on QCA have already been addressed; others remain. Yet, there are also challenges that stem from the very success of QCA as a research approach. Specifically, we see a growing need for homogeneity in how the analysis is conducted and how the results are presented. For instance, different notational systems persist, one employing capitalized and small letters to represent the presence or absence of a cause, the other using Boolean expressions. Furthermore, while configuration tables (Ragin & Fiss, 2008) that use full and crossed out circles appear to have become a common form of representation, other forms of presentation exist and possess different advantages. While a more homogeneous and clear approach will make it easy to report and interpret results, convincing more scholars and reviewers to adopt this method, it is also important not to inhibit experimentation and innovation.

This issue also relates to standards for calibration, coverage, consistency, selecting causal conditions, choosing cutoffs, and causal inference, where the challenge is finding a balance between rigor and standards on the one hand and allowing theoretical interpretations on the other hand. A potential danger here is that the use of QCA becomes too mechanical, with a strong focus on cut-offs, scores, and numbers, thus shifting toward a more statistical and standardized analysis technique that no longer captures the

complexity of organizational configurations that may require a more flexible approach and dialogue with the data (Ragin, 1987).

In line with such concerns, the relationship between QCA and other techniques has yet to be further revealed. Since QCA and more standard correlational methods such as OLS regression are based on different starting assumptions, we should perhaps not expect their results to be comparable. While QCA has so far been used as a stand-alone technique to analyze causal complexity in organizations, it may also hold potential as a complement of variable-based approaches (in large-*N*) or case-based approaches (in small-*N*). Considerable work remains to be done to explore the intersection and the potential complementarities between QCA and standard regression analysis (Fiss et al., 2013; Greckhamer, Misangyi, and Fiss, Chapter 3; Vis, 2012).

In the current volume, we have aimed to both take stock of the state of configurational theory and methods using a set-theoretic approach and to outline an agenda going forward. It is evident that significant challenges remain. Yet, the momentum of the configurational approach appears to be stronger than in a long time.

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