Understanding Tension and Conflict Management through Theoretical Triangulation

Hong Qiu

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Telfer School of Management
University of Ottawa

Preface

This dissertation is an original intellectual product of Hong Qiu. The fieldwork reported in Chapter 3 received research ethics approval from the University of Ottawa Research Ethics Board, file number 09-17-04. The fieldwork reported in Chapter 4 received research ethics approval from the University of Ottawa Research Ethics Board, file number S-05-20-5500.

A version of Chapter 2 has been published in the journal of *Family Business Review* [Qiu, H., & Freel, M. (2020). Managing family-related conflicts in family businesses: a review and research agenda. *Family Business Review*, 33(1), 90-113. Copyright © 2020. Doi: 10.1177/0894486519893223]. I was the first author and responsible for searching the literature, organizing, and analyzing selected articles, as well as manuscript composition. Professor Mark Freel was the supervisory author on this project. He provided guidance on the structure of review and contributed to manuscript edits.

A version of Chapter 3 has been published in the Journal of *Public Management Review* [Qiu, H., & Chreim, S. (2021). A tension lens for understanding public innovation diffusion processes. *Public Management Review*, 1-21. Copyright © 2021. Doi: 10.1080/14719037.2021.1942532]. I was the principal investigator and responsible for all major areas of research design, data collection and analysis, as well as manuscript composition. Professor Samia Chreim was the supervisory author on this project. She provided guidance on data analysis and contributed to manuscript edits.

A version of Chapter 4 has been submitted to a scholarly journal and is under peer review. I was the principal investigator and responsible for all major areas of concept formation, data collection and analysis, as well as manuscript composition. Professors Samia Chreim and Mark Freel were the supervisory authors on this project. Professor Samia Chreim provided guidance on data collection, data analysis and contributed to manuscript edits. Professor Mark Freel provided guidance on research design, assisted in finding potential interviewees, and contributed to the introduction and manuscript edits.

Abstract

Tensions and conflicts are a regular, but complex, part of organizational life. Triangulating multiple related theories is useful in gaining deeper insights into the complexities of tension or conflict management processes in organizations.

This dissertation consists of three related essays that collectively contribute to answering a common research question: How and why tensions or conflicts are experienced and managed in different organizational contexts? The focus is on how three theoretical perspectives (contingency, paradox and dialectic) can be deployed to understand tension or conflict management in different contexts. This topic is relevant for three reasons. First, recent evidence demonstrates that both tensions and conflicts have constructive potential for individual and/or organizational change. Second, conflict studies have been shifting from short-term focused resolution to long-term-oriented transformation. This trend suggests that conflict studies might benefit from tension research, which is often long-term oriented due to the persistence of organizational tensions. Third, the advancement of tension research at the organization level calls for more tension research at the individual level. This presents a good opportunity to complement conflict studies, which mainly focus on individual and team level analyses.

The dissertation uses a multi-perspective framework to analyze tension or conflict management in three organizational contexts that are rich in tensions and conflicts: family businesses, innovation in government, and the entrepreneurial university. The contingency perspective features either-or thinking that stresses the importance of making either-or choices according to contingencies. The paradox perspective features both-and thinking which favours strategies that address competing demands simultaneously. The dialectic perspective involves more-than thinking that aims to transcend tensions or conflicts through third parties, reframing,

or other workarounds. The study of three different contexts (family business, government, and the university) allows for a better understanding of how different contexts shape the manifestation of tensions and conflicts and influence the choice of tension and conflict management strategies.

The first essay (presented in chapter 2 and co-authored with Professor Mark Freel) is based on a literature review of family-related conflicts and how these conflicts are managed in family businesses. The review illustrates how the popularity of certain conflict management strategies is associated with some unique aspects of family businesses, such as the prevalence of relationship conflicts and the relatively high emotional bonding in families.

The second essay (presented in chapter 3 and co-authored with Professor Samia Chreim) uses a longitudinal case study to examine how tension management evolves regarding two tensions observed in a government innovation diffusion process: control versus resistance and competing interests among stakeholders. The study demonstrates how tension management strategies evolve from simple to complex through a mechanism of joint learning between innovators and the government. The study also finds that tensions can be leveraged strategically to move the innovation project forward.

The third essay (presented in chapter 4 and co-authored with Professor Samia Chreim and Professor Mark Freel) explores how academic and non-academic staff in two Canadian universities manage the reward and resource tensions associated with entrepreneurship-related activities. The study finds that individuals' strategies in managing the reward tension influence the type of entrepreneurship-related activities they engage in, and individuals' strategies in managing the resource tension influence the scale and scope of entrepreneurship-related activities at the university level. The study also illustrates that power relations are dynamic and that the implementation of both-and strategies can help balance power relations in a tension context.

Collectively, the three essays in this dissertation shed light on how organizations, teams or individuals manage tensions or conflicts in three organizational contexts featuring hybrid logics (family and business; innovation and bureaucracy; entrepreneurship and scholarship). The multi-perspective framework has proved useful as a tool for analyzing both tension and conflict management. It also helps to frame important new research questions around topics such as how constructive potential is realized, why certain management strategies are more or less popular, and how strategies evolve with different types of tension or conflict.

Acknowledgement

First and foremost, I would like to express my deepest appreciation to my supervisors and co-authors, Professors Mark Freel and Samia Chreim. During the last six years, they have been an immense source of wisdom for me. They always gave timely and insightful feedback on my research. They have provided not only invaluable academic guidance, but also emotional support to help me cope with various challenges and stay on track. They patiently guided me through every step of my PhD journey. I am sincerely thankful for their patience, kindness, encouragement, and dedication to my academic growth.

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Chapter 1

Introduction: Why Study Tension and Conflict Management?

Tension and Conflict Management

Tensions and conflicts are a regular part of organizational life. Tensions are defined as "competing demands that are contradictory yet interdependent" (Smith et al. 2017, p.305). Conflicts are "an interactive process manifested in incompatibility, disagreement, or difference within or between social entities" (Rahim, 2011, p.16). While the two concepts are closely related and share similarities in terms of the strategies used to manage them, tension studies and conflict research have progressed largely independently from each other. Tensions are latent, persistent, and are often studied at the organizational level (e.g., Smith & Lewis, 2011), while conflicts are salient, relational, and are often examined at the individual or group level (e.g., De Wit et al., 2012).

In recent years, as organizations seek to generate innovations and incubate new practices, the juxtaposition of old and new paradigms and the presence of hybrid identities, forms or logics in organizations have drawn attention to the constructive potential of tensions and conflicts (Battilana et al., 2017; Holt & Littlewood, 2015; Isaksen & Ekvall, 2010; Seo et al., 2004). This presents an opportunity to triangulate the contingency theory that often appears in conflict management literature with paradox and dialectic theories that dominate in tension management studies to yield new research questions and enrich research in both areas.

There are benefits to triangulating multiple theoretical perspectives of tension and conflict management. First, doing so provides an opportunity to adopt a process perspective. Tensions can cause conflicts and how these conflicts are addressed can, in turn, affect how further tensions are manifested (Jay, 2013). An integrative view of both can help promote a better understanding of the manifestation and management processes of tensions and conflicts and on their recursive influences.

Second, the similarity and complementarity between conflict and tension management has become increasingly evident in recent literature, pointing to benefits of cross-fertilization between these two areas of research. On one hand, both tension studies and conflict research have identified similar management strategies (such as third-party engagement and reframing) and the importance of power relations in shaping tension or conflict dynamics (Deutsch, 2015; Putnam et al., 2016). On the other hand, conflict studies have been shifting from short-term focused resolution to long-term oriented transformation that emphasizes constructive changes in relationships (Lederach, 2015). Recent advances in paradox theory also indicate that cyclical responses to paradoxical tensions enable sustainability (Smith & Lewis, 2011). The shared focus of both research streams on long-term strategies suggests that conflict research can benefit from insights generated in tension studies and vice versa.

Third, integrating insights from tension and conflict research will benefit studies of hybrid organizations and organizational innovations. Hybrid organizing has been increasingly used as a way to stimulate creativity and innovation, but hybrid organizations are also subject to tensions and conflicts caused by incompatible values or logics (Battilana et al., 2017; Brandsen & Karré, 2011). While empirical studies on hybrid organizations and organizational innovations have touched on both the tensions at the organizational level (Jay, 2013, Battilana & Dorado, 2010) and the role of conflicts at the individual level (Johansen et al., 2015), there has been a lack of consistency and coherence in describing tension and conflict management strategies. In this dissertation, I propose a comprehensive framework derived from the two literature streams to analyze tension and conflict management in organizations and to bridge organizational and individual levels of analyses. This will help uncover important influences, strategies and outcomes associated with tension and conflict that are rarely considered or discussed.

Drawing upon three theoretical perspectives (contingency, paradox, and dialectic), the dissertation uses a multi-perspective framework to analyze tension and conflict management in three research contexts. The objective is to use this framework to generate new insights into tension and conflict management.

A Multi-Perspective Framework for Tension and Conflict Management

The interdependencies between tension and conflict, and the similarities between tension management and conflict management warrant a shared theoretical framework to examine their management strategies in a holistic way. In this section, an overview of three theoretical perspectives on tensions and conflict management is presented.

Adapting a definition of conflict management from Rahim (2002), this dissertation considers tension and conflict management as a set of behaviours undertaken by individuals, groups, or organizations to minimize the dysfunctions resulting from tensions and conflicts, and to enhance their constructive potential. Building on the works by Hargrave and Van De Ven (2017), Putnam et al. (2016), Smith and Lewis (2011), and Thomas (1992), I identify three theoretical lenses with respect to tension and conflict management: contingency, paradox and dialectic.

The contingency perspective features “either-or” thinking by focusing on the contradictions within tensions and conflicts; it stresses the importance of making trade-off decisions according to contingencies (Thomas, 1992; Putnam et al., 2016). The contingency perspective can be found in the traditional dual-concern theory of conflict management in which conflicting parties can choose to either advance self-interest through competition or sacrifice ‘self’ to accommodate others’ interests (Sorenson, 1999). Examples of either-or strategies also include avoidance strategies, which reflect an either-or choice to stay away from the tension or conflict rather than stay in it.

The paradox perspective acknowledges the contradiction and interdependency within tensions and conflicts and argues that such paradoxical tensions and conflicts should be managed concurrently by attending to competing demands simultaneously (Smith & Lewis, 2011). The paradox perspective is long-term focused and favors a balancing approach to tension and conflict management, such as compromise and collaboration. While these both-and strategies have been captured by the dual-concern theory of conflict management (Thomas, 1992), there has been limited discussion of these strategies from the paradox perspective. This perspective offers a new way to reflect conflict management outcomes especially in relation to the reproduction of dynamic tension between opposites.

Finally, the *dialectic perspective* is also long-term oriented but differs from the paradox perspective in its view of power relations. Unlike the paradox perspective, which assumes that actors accept the tensions in a symmetric power relation, the dialectic perspective assumes that actors resist the tension and manage them through a ‘more-than’ approach (Hargrave & Van De Ven 2017). More-than strategies often transcend tensions or conflicts through reframing, introducing third parties or finding a workaround. The recent shift from conflict resolution to conflict transformation in the literature reflects a growing research interest in understanding how dialectics (i.e., the dynamic interplay of opposites) transform conflict processes and how disputants reach a new understanding of the conflict through co-constructive interactions (Putnam & Powers, 2016).

The three theories are selected based on their usefulness in explaining a wide spectrum of tension and conflict management strategies, ranging from making relatively simple either-or choices to exploring complex more-than options. A detailed comparison of the three perspectives is presented in Table 1-1. As can be seen, the contingency theory is drawn from conflict management literature and the paradox and dialectic theories are drawn from tension management literature. My particular focus on tension management theories flows from their relative novelty. Tension research is relatively new and this creates the opportunity to apply a new tension lens to the established literature on conflict management. This dissertation applies this multi-perspective framework by studying three different research settings and attending to different levels of analysis.

Table 1-1

A Comparison of Theoretical Perspectives on Tension and Conflict Management

Theoretical lens	**Contingency perspective**	**Paradox perspective**	**Dialectical Perspective**
Theoretical focus	Pragmatic	Visionary, prescriptive	Descriptive, focus on how tensions transform over time
Characteristics of conflicts and underlying tensions	Contradictory	Persistent, contradictory but interdependent	Persistent, contradictory but interdependent
Goal	Coping	Paradoxical resolution; To foster learning and creativity	Production of transformation through politics and conflicts
Assumptions	Contextual variables are given	Contextual variables are changeable	Actors resist the tension and seek to dominate and overcome opponents; Unstable, asymmetrical distribution of power
Conflict / tension management approach	Either-or -Defensive reactions (e.g., denial or withdraw) -Selection or privileging one pole (e.g., focus on competition over cooperation)	Both-and -Paradoxical thinking (increases cognitive abilities to recognize opposites) -Vacillation or spiraling inversion (shifting	More-than -Reframing and transcendence (situate the pairs in a novel relationship) -Connecting, third space and dialogue (engage opposites in an ongoing dynamic play

Theoretical lens	Contingency perspective	Paradox perspective	Dialectical Perspective
	-Separation or segmentation (e.g., through temporal splitting or structural differentiation)	back and forth between two poles) -Integration and balance (e.g., compromise)	or create a third space for dialogue) -Reflective practice and serious playfulness (e.g., use humor to surface tension and develop reflective practice)
Outcome	Conflict is resolved	Ongoing reproduction of dynamic tension between opposites through differentiation and synergy	Conflict between contradictory elements unintendedly produces transformation, which later becomes a new element in tension as the dialectical process recycles

Note: Adapted from Hargrave & Van De Ven (2017), Putnam et al. (2016), Smith & Lewis (2011), Thomas (1992)

Methodological Approach

This dissertation is grounded in a realism research paradigm, which is concerned with understanding of "mechanisms that explain how and why reality unfolds as it does in a particular context" (Patton, 2015, p.111). While realism covers a broad range of strands, most forms of realism share some fundamental assumptions (Maxwell, 2012; Patton, 2015). Maxwell (2012) points out that realism holds "the idea that there is a real world with which we interact, and to which our concepts and theories refer" (p. 3), but that "there is no possibility of attaining a single, 'correct' understanding of the world… that is independent of any particular viewpoint" (p. 5). As such, realist researchers accept alternative perspectives on external reality and consider meaning, values and intentions held by research participants as part of explanatory mechanisms (Healy & Perry, 2000; Maxwell, 2012). Methodologically, realist researchers often use qualitative methods such as case studies to explore mechanisms embedded in a context (Maxwell, 2012). Some scholars argue that realism is also compatible with quantitative methods, such as structural equation modelling and mixed methods (Healy & Perry, 2000; Maxwell & Mittapalli, 2010).

Guided by the realism research paradigm, this dissertation uses a multi-perspective framework to analyze how individuals, teams, or organizations manage tensions and conflicts in different organizational contexts. The objective is to explore new research opportunities and demonstrate new insights into tension and conflict management offered by theoretical triangulation. Theoretical triangulation involves the use of multiple theories in examining a phenomenon (Thurmond, 2001). It is believed that theoretical triangulation can contribute to a more comprehensive, contextually embedded understanding of a topic (Knafl & Breitmayer, 1991).

The selection of three research settings and the use of qualitative research methods are also guided by the realism research paradigm. First, since the multi-perspective framework detailed in Table 1-1 is largely drawn from the tension literature, it is important to validate whether tension management strategies derived from the paradox and dialectic perspectives are applicable to conflict-rich settings. The family business setting meets this requirement because family businesses have often been considered fertile ground for conflicts (De Massis et al., 2015; Zattoni et al., 2015). Moreover, enduring family relationships and the long-term orientation of family businesses make this setting an ideal place to investigate whether there are conflict management strategies that have not been captured by the theoretical framework presented in Table 1-1. To benefit from the vast literature on conflicts and conflict management in family businesses, a literature review method was used since a systematic review would help capture a wide variety of conflict management strategies used.

Second, the original multi-perspective framework provides little guidance on how to realize the constructive potential of tensions and conflicts. To further develop this aspect, the second research setting needs to satisfy a condition where tensions or conflicts can be harnessed to facilitate organizational change. As a result, a context of government innovation is selected because innovation in a highly bureaucratic environment is often fraught with tensions and conflicts. For this research setting, I used a longitudinal case study. How the constructive potential is realized is a process question and involves understanding of the tension and conflict dynamics over time. Moreover, this study aims to explore how latent tensions become salient, and how tension management strategies changed over time to facilitate the innovation process. In other words, this study seeks to understand the structures and mechanisms underlying tensions and the patterns of tension management. Therefore, a qualitative research method is suitable for this type of inquiry (Patton, 2015).

Third, the lack of individual level analysis has been identified as a research gap in previous tension studies (e.g., Schad et al., 2016). As such, the third research setting aims to fill this gap by analyzing individual-level tension management in a context of the 'entrepreneurial university.' This is not only because entrepreneurship is often driven by entrepreneurial individuals, but also because universities are pluralistic organizations that are characterized by multiple objectives, diffuse power, and knowledge-based work processes (Denis et al., 2007). Universities' diffused power structure also provides an opportunity to examine an important theoretical assumption about power relations in paradox and dialectic theories (see Table 1-1).

As this research concerns the meanings that individuals place on tension processes and structures around them and their tension management behaviour, a qualitative case method is used. This is because a qualitative approach provides rich description and allows for a better understanding of the meanings held by participants; it also pays in-depth attention to the local context that influences meanings and behaviors (Miles et al., 2018).

Together, the three research settings cover private hybrid organizations that operate with multiple values and goals, public organizations that are undergoing changes and innovations, and pluralistic organizations in transformation that operate with diffused power structures. These settings provide a valuable opportunity to examine how individuals, teams, and organizations manage tensions/conflicts to minimize the dysfunctions and realize the constructive potential to facilitate positive organizational changes. The use of multiple theoretical perspectives and the variations in the level of analysis across essays will help generate in-depth understandings and explanations of tension and conflict management approaches.

Overview of the Dissertation

This dissertation adopts a three-essay format. Each of the three essays has its specific research objective, but collectively they are intended to form a coherent contribution to an overarching research question: How are tensions and conflicts experienced and managed in different organizational contexts? Table 1-2 below provides an overview that demonstrates how the three essays complement each other and contribute to the overall aims of the dissertation.

Table 1-2

Overview of the Dissertation

Essay	**Research Question**	**Research Method and Focus**	**Results**
Essay 1: Managing Family-Related Conflicts in Family Businesses: A Review and Research Agenda	How do family businesses manage family-related conflicts that occur at three interfaces: family-business, family-ownership, and family-business-ownership?	Literature review Conflict management at the individual and organization levels	This essay finds that high emotional attachment among family members makes separation and third-party intervention two popular conflict management strategies because they can help family members cool down their emotions and satisfy their needs for objectivity. It also finds that the long-term orientation of family businesses makes vacillation and domination two popular conflict management strategies because family members need to continue to vacillate between their family and business roles and maintain the dominant coalition to run the family firm.

Essay	Research Question	Research Method and Focus	Results
Essay 2: A Tension Lens for Understanding Public Innovation Diffusion Processes	How do public servants manage tensions and diffuse public innovations in a bureaucratic and political environment?	Longitudinal qualitative case study Tension management at the team level regarding two tensions with the organization: • control vs. resistance and • competing interests	This essay demonstrates that innovators can strategically evoke tensions and actively leverage the energy behind tensions to advance innovations. It also shows that tension management strategies tend to evolve from simple to complex through a mechanism of joint learning in the diffusion process of public innovation
Essay 3: A Tension Lens for Understanding Entrepreneurship-related Activities in the University	How do individuals manage tensions to drive entrepreneurship-related activities in the university?	Qualitative study on two universities Tension management at the individual level regarding two tensions with the university: • reward tension: misalignment between reward systems and individuals' entrepreneurship-related activities • Resource tension: a struggle to do more with less	This essay illustrates that individuals' strategies in managing the reward tension influence the type of entrepreneurship-related activities they engage in, and individuals' strategies in managing the resource tension influence the scale and scope of entrepreneurship-related activities at the university level. It also shows that power relations are dynamic. Asymmetric power relations do not always prevent individuals from employing both-and strategies as predicted by paradox theory. Implementation of both-and strategies can balance power relations in a tension context.

References

Battilana, J., Besharov, M., & Mitzinneck, B. (2017). On hybrids and hybrid organizing: A review and roadmap for future research. In Greenwood, R., Oliver, C., Lawrence, T. B., & Meyer, R. E. (Eds.) *The SAGE* handbook *of organizational institutionalism*, (*2ne ed.*, pp.133-169). SAGE Publications Inc.

Battilana, J., & Dorado, S. (2010). Building sustainable hybrid organizations: The case of commercial microfinance organizations. *Academy of Management Journal*, *53*(6), 1419-1440.

Brandsen, T., & Karré, P. M. (2011). Hybrid organizations: No cause for concern? *International Journal of Public Administration*, *34*(13), 827-836.

De Massis, A., Kotlar, J., Campopiano, G., & Cassia, L. (2015). The impact of family involvement on SMEs' performance: Theory and evidence. *Journal of Small Business Management*, *53*(4), 924-948.

Denis, J. L., Langley, A., & Rouleau, L. (2007). Strategizing in pluralistic contexts: Rethinking theoretical frames. *Human Relations*, *60*(1), 179-215.

Deutsch, M. (2015). Cooperation, competition, and conflict. In Coleman, P. T. and Deutsch, M., *Morton Deutsch: A pioneer in developing peace psychology* (pp. 47-70). Springer, https://doi.org/10.1007/978-3-319-15440-4

De Wit, F. R., Greer, L. L., & Jehn, K. A. (2012). The paradox of intragroup conflict: A meta-analysis. *Journal of Applied Psychology*, *97*(2), 360.

Gestel, N. v., Denis, J., & Ferlie, E. (2020). Hybridity in public organisations. In Billis, & Rochester, C. (Eds.) *Handbook on hybrid organisation* (pp. 48-65). Edward Elgar Publishing.

Hargrave, T. J., & Van de Ven, A. H. (2017). Integrating dialectical and paradox perspectives on managing contradictions in organizations. *Organization Studies*, *38*(3-4), 319-339.

Healy, M., & Perry, C. (2000). Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm. *Qualitative Market Research: An International Journal*, *3*(3), 118-126.

Holt, D., & Littlewood, D. (2015). Identifying, Mapping, and Monitoring the Impact of Hybrid Firms. *California Management Review*, *57*(3), 107-125.

Jay, J. (2013). Navigating paradox as a mechanism of change and innovation in hybrid organizations. *Academy of Management Journal*, *56*(1), 137-159.

Johansen, S. T., Olsen, T. H., Solstad, E., & Torsteinsen, H. (2015). An insider view of the hybrid organisation: How managers respond to challenges of efficiency, legitimacy and meaning. *Journal of Management & Organization*, *21*(6), 725-740.

Keast, R. (2022). Network governance. In Ansell, C., & Torfing, J. (Eds.) *Handbook on theories of governance* (pp.485-496). Edward Elgar Publishing.

Knafl, K. & Breitmayer, B. (1991). Triangulation in qualitative research: issues of conceptual clarity and purpose. In Morse, J. M. (Ed.), *Qualitative nursing research: A contemporary dialogue* (pp. 226-239). SAGE Publications, Inc.

Lederach, J. (2015). *Little book of conflict transformation: Clear articulation of the guiding principles by a pioneer in the field*. Simon and Schuster.

Maxwell, J. A., & Mittapalli, K. (2010). Realism as a stance for mixed methods research. In Tashakkori, A., & Teddlie, C. (Eds.). *SAGE handbook of mixed methods in social & behavioral research*, (*2nd ed*.; pp.145-168). SAGE Publications, Inc. https://dx.doi.org/10.4135/9781506335193

Maxwell, J. A. (2012). *A realist approach for qualitative research*. SAGE Publications, Inc.

Miles, M. B., Huberman, A. M., & Saldana, J. (2018). *Qualitative data analysis: A methods sourcebook* (4th ed.). SAGE Publications, Inc.

Patton, M.Q. (2015). *Qualitative research and evaluation methods* (4th ed.). SAGE Publications, Inc.

Putnam, L. L., Fairhurst, G. T., & Banghart, S. (2016). Contradictions, dialectics, and paradoxes in organizations: A constitutive approach. *Academy of Management Annals*, *10*(1), 65-171.

Putnam, L. L., & Powers, S. R. (2016). Contradictions and dialectics as keys to conflict transformation. In Kellett, M. & Matyók, T (Eds.). *Transforming conflict through communication in personal, family, and working relationships* (pp.3-22). Lexington Books.

Rahim. M.A. (2011). *Managing conflict in organizations* (4th ed.). Routledge. https://doi.org/10.4324/9780203786482

Rahim, M. A. (2002). Toward a theory of managing organizational conflict. *International Journal of Conflict Management*. *13*(3), 206-235

Schad, J., Lewis, M. W., Raisch, S., & Smith, W. K. (2016). Paradox research in management science: Looking back to move forward. *Academy of Management Annals*, *10*(1), 5-64.

Seo, M., Putnam, L. L., & Bartunek, J. M. (2004). Dualities and tensions of planned organizational change. In Poole, M. S., & Van de Ven, A. H. (Eds.). *Handbook of organizational change and innovation* (pp.73-107). Oxford University Press.

Smith, W. K., Erez, M., Jarvenpaa, S., Lewis, M. W., & Tracey, P. (2017). Adding complexity to theories of paradox, tensions, and dualities of innovation and change: Introduction to organization studies special issue on paradox, tensions, and dualities of innovation and change. *Organization Studies*, 38(3-4), 303-317.

Smith, W. K., & Lewis, M. W. (2011). Toward a Theory of Paradox: A Dynamic Equilibrium Model of Organizing. *Academy of Management Review*, 36(2), 381-403.

Sorenson, R. L. (1999). Conflict management strategies used by successful family businesses. *Family Business Review*, *12*(4), 325-340.

Thomas, K. W. (1992). Conflict and conflict management: Reflections and update. *Journal of Organizational Behavior*, *13*(3), 265-274.

Thurmond, V. A. (2001). The point of triangulation. *Journal of Nursing Scholarship*, *33*(3), 253-258.

Zattoni, A., Gnan, L., & Huse, M. (2015). Does family involvement influence firm performance? Exploring the mediating effects of board processes and tasks. *Journal of Management*, *41*(4), 1214-1243.

Chapter 2

Essay 1- Managing Family-related Conflicts in Family Businesses: A Review and Research Agenda

Abstract

This review examines how family businesses manage family-related conflicts that occur at three interfaces: family-business, family-ownership, and family-business-ownership. We find that work-family conflicts, conflicts of interests, and relationship conflicts are prevalent family-related conflicts. Four conflict management strategies are frequently used to deal with these conflicts: vacillation, domination, separation, and third-party intervention. The popularity of these strategies is influenced by some unique characteristics of family businesses, such as high emotional attachment among family members. By integrating insights from the broader conflict research, paradox and dialectic studies, we develop a research agenda targeted at better connecting family-related conflicts to conflict management strategies.

Keywords: conflict management, family firm, review, research agenda, conflict process

Family involvement in the family business has often been framed both as a distinct feature of family business and a major source of conflict in these firms (De Massis et al., 2015; Zattoni et al., 2015). Family involvement fosters conflict at three interfaces: family-business; family-ownership; and family-business-ownership, and we label such conflicts as family-related conflicts. At the family-business interface, business owners experience work-family conflict created by the competing roles (Cooper et al., 2013; Greenhaus & Beutell, 1985). Moreover, family members may enter into conflicts with nonfamily employees (Davis & Harveston, 2001; Vera & Dean, 2005). At the family-ownership interface, conflicts occur between family and nonfamily shareholders and/or between majority and minority family shareholders (Meier & Schier, 2016). Finally, conflicts at the family-business-ownership interface encompass a variety of intertwined parties (Harvey & Evans, 1994) and often arise or intensify during the business succession process (Malinen, 2001). For example, siblings might compete to succeed as business leaders (Jayantilal et al., 2016); incumbents and successors might fight over the control of assets and power distribution within the family (Meier & Schier, 2016); family and nonfamily shareholders might disagree on stable or expansive growth (Meier & Schier, 2016).

A family business is "governed and/or managed with the intention to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families" (Chua et al., 1999, p.25). The term 'dominant coalition' implies asymmetric power relations and suggests that conflicts are inherent to family businesses. Research shows that family-related conflicts frequently result in damaging organizational outcomes such as poor decision-making, high nonfamily employee turnover, and reduced firm performance (Ensley et al., 2002; Eddleston & Kellermanns, 2008; Rizzotti et al., 2017). In the extreme, these conflicts can lead to the demise of a family business (Großmann & Schlippe, 2015). However, some research has indicated that family-related conflicts involving different viewpoints among business family members may fuel productive debates (Cosier & Harvey, 1998) and aid strategic planning (Kellermanns & Eddleston, 2004). Thus, although family involvement may lead family businesses to be "plagued by conflicts" (Levinson, 1971, p. 69), family-related conflicts can be managed so that the conflict process is less destructive, and the conflict outcome is more favorable.

While many studies examined family-related conflicts in family businesses, most studies investigate either conflicts or conflict management strategies with respect to their relationship with firm performance or family satisfaction (e.g., Kellermanns & Eddleston, 2004, 2007; Sorenson, 1999). A few studies go further by addressing both family-related conflicts and conflict management strategies, but the two elements are typically presented as snapshots, not as intricately coupled components of a conflict's dynamic trajectory (e.g., Alderson, 2015; Kellermanns & Eddleston, 2006). Accordingly, it is unclear why certain conflict management strategies are used more often than the others and how each type of family-related conflict can be effectively managed to achieve better outcomes. We believe that a review that orients the reader towards the connections between family-related conflicts and conflict management strategies is a first step toward bringing these literatures together and advancing knowledge about family-related conflicts and their management.

We focus on patterns of family-related conflicts and their connections to conflict management strategies and hope to make two contributions to the literature. First, we demonstrate how family involvement in family businesses influences family-related conflicts and subsequent conflict management strategies. By examining the factors that provoke family-related conflicts, how these conflicts manifest and get managed, and the consequences that might ensue, we identify important knowledge gaps that offer rich opportunities for theory development. Second, we build upon paradox and dialectic theories to introduce a framework that can be used as a basis for future research to explore patterns of conflict management strategies in family businesses. Paradox theory argues that organizations should attend to competing demands simultaneously when dealing with persistent, contradictory, yet interdependent tensions (Smith & Lewis, 2011). Dialectic theory argues that change processes are shaped by the dynamic interplay between opposing forces that have an unbalanced power relation (Hargrave & Van De Ven, 2017). These theories align with family-businesses' long-term orientation and the presence of a powerful family coalition that might be in conflict with external stakeholders. Our framework allows us to explain why certain conflict management strategies are more or less popular in family businesses, what conditions facilitate or inhibit the use of these strategies, and to what extent chosen strategies might or might not be effective at dealing with particular family-related conflicts.

Structuring the Review

For this review, we focus on family-related conflicts because they are unique to family businesses. We list examples of family-related conflicts covered in our review in Table 2-1. Several clarifications need to be made with respect to the scope. First, we also review conflicts within the family/business/ownership systems when they act as antecedents or consequences of family-related conflicts. Second, we review work-family conflicts experienced by business family members. While nonfamily employees might also experience work-family conflicts, these conflicts are out of the scope of this paper.

Table 2-1

Types of Family-related Conflicts Covered in the Review

Interface	Who	Type of Conflict	Levels of Analysis	Sample Articles
Family and ownership	family members or shareholders and nonfamily shareholders majority and minority family shareholders	Conflict of interest – conflict arising from people's actions in pursuit of their own interests (Martínez-Ferrero et al., 2016)	Conflicts at the intra-organization level with impacts at the business level Conflicts at the family level with impacts at the business level and interfamily level	Meier & Schier (2016): Disagreements on issues such as (1) ownership continuity or change, (2) executive leadership continuity or change, (3) power and asset distribution, and (4) management vision of the firm's role in society
Family and business	Family owners or employees and non-family employees	Relationship conflict – the perception of personal animosities and incompatibility that may spill into negative emotions such as annoyance	Conflicts at the interpersonal or intragroup level with impacts at the business level	Vera & Dean (2005): Nonfamily member employees feel threatened by the owner's offspring in the business and vice versa

Interface	Who	Type of Conflict	Levels of Analysis	Sample Articles
		(Kellermanns & Eddleston, 2004)		
	Family members and/or employees (e.g., siblings, different generations of a family)	Task conflict – involves disputes about which tasks should be accomplished. (Ensley et al.,2002; Zatonni,2015) Process conflict- disagreements about methods of completing tasks (Cosier & Harvey, 1998)	Conflicts at individual or intragroup level with impacts at team or business level	Davis & Harveston (1999): Family members have disagreements regarding business management during and post succession
	Business owners	Work-family conflict – a simultaneous pressure from incompatible or hardly compatible roles that an individual has to fulfil at work and at home (Greenhaus & Beutell, 1985)	Conflicts at the intra- personal level with impacts at the individual, family, or business level	Lewis et al. (2016): Female entrepreneurs find ways to deal with competing demands from work and from family
Family -ownership -business	Family members, non-family employees, shareholders, external stakeholders	All of the above	Conflict at the family, ownership, and business level and impacts at business level	Pieper et al. (2015): In a multifamily business, two founding families engage in conflicts with each other and with external consultants and stakeholders

Aligned with conflict theories and research (Pondy, 1967), we view conflict as “an interactive process manifested in incompatibility, disagreement, or difference within or between social entities” (Rahim, 2010, p. 14) and conflict management as a set of behaviors undertaken by individuals or organizations to minimize the dysfunctions and enhance the constructive functions of conflict (Rahim, 2002). The process-based view of conflict implies that conflict management plays an important role in conflict escalation and de-escalation. Conflict that is inadequately addressed or poorly managed may linger and may itself be the source of more complex and less tractable conflicts (Harvey & Evans, 1994). This is the notion of conflict as a recursive system, with conflict (and conflict management) driving, at least in part, future conflicts.

Following the principles for a systematic review suggested by Short (2009), we searched for studies based on a list of *synonyms* of the terms "conflicts" and "family businesses". These keywords included: *dilemma, rivalry, dispute, disagreement, tension, dissension, feud* and *"family firm/business/enterprise," "family-controlled firm/business/enterprise," "family-owned firm/business/enterprise," "family-managed firm/business/enterprise".* We constructed search strings of all possible combinations of keywords for a) conflicts and b) family businesses. Examples are [conflict AND "family business"] and [rivalry AND "family-managed enterprise"]. We searched for these strings in the Web of Science database, Scopus, and Google Scholar and conducted a manual search of major journals publishing family business studies. Finally, we examined the reference sections of prior reviews of conflict research in family businesses (e.g., Alderson, 2015; Frank et al., 2011; McKee et al., 2014) to track down any missing studies. As a result, we retrieved a total of 276 studies pertaining to aspects of conflict in family businesses. Studies were included if they directly examine conflicts involving members from the business family or report on conflict management strategies. We excluded studies that only mention family-related conflict cursorily to explain findings or examine these conflicts as a moderator or mediator in other focal relationships (e.g., Chen et al., 2014 investigate the impact of founding family ownership on accounting conservatism and use agency conflicts to explain their findings). Our initial list was reduced to 93 studies, comprising two books, 27 conceptual papers, 22 qualitative studies, 37 quantitative studies, and five reviews. These publications were found in 33 different journals[1]. Among these studies, 35 articles are concerned with conflict management strategies. This subset provides an important foundation for our discussion about conflict management.

In analyzing studies that mainly address family-related conflicts, we examined previous reviews and determined a framework of antecedents-characteristics-consequences. We then reviewed each article's focus according to this framework and coded for types of conflicts, levels of analysis, and parties involved. In analyzing studies that have a conflict management component, we augmented the framework provided by Putnam et al. (2016) with materials from other authors on conflicts and tensions (e.g., Hargrave & Van De Ven 2017; Thomas, 1992) to guide our analysis. While Putnam et al. (2016) focus on strategies for dealing with organizational contradictions and paradoxes, we consider these tensions as latent conflicts or sources of conflict (Pondy,1967) and contend that it is important to understand conflicts at the latent stage in which "conflict is hidden although there are conditions for starting it" (Spaho, 2013, p.108). Following this step, we coded conflict management strategies into three categories: *either-or*, *both-and*, and *more-than,* and then identified sub-categories derived from Putnam et al. (2016) and added new sub-categories that emerged from the family business literature. We detail our analysis and findings in the following sections.

The Antecedents, Characteristics, and Consequences of Family-Related Conflicts

Building upon best practices in literature reviews (e.g., Frank et al., 2011; McKee et al., 2014), we classify prior research on family-related conflicts into (1) antecedents, (2) characteristics and (3) consequences.

Antecedents

Our review of antecedents reveals three insights for conflict management. First, the antecedent-conflict relationship is not static but has its own dynamics. For example, antecedents originating from the family system, such as *negative parent-child relationship* and *intergenerational differences* (Kidwell et al., 2013; Chrisman et al., 2012), can be enduring and the strength of such relationships might change over a family's life cycle. In addition, a specific antecedent may act as a driver of conflict in one context but become a mediator of conflict in another context. For example, *the continued presence of business founders* post succession tends to increase family-related conflicts – especially with respect to company control, company management, and organizational vision questions (Davis & Harveston, 1999). However, prior to succession, the founder plays a special role in establishing common values and creating harmony in the family business (Davis & Harveston, 1999).

Second, some antecedents appear to have high 'transferability,' which makes the associated conflicts more likely to spill over into other interfaces or systems. For example, *perceived injustice and unfair treatment* (Alderson, 2015) can cause family-related conflicts at multiple interfaces (e.g., parental 'unfairness' can create sibling rivalry at the family-business interface). In contrast, *the distribution of profits and dividends* (Botero et al., 2015) only influences the ownership system/interface and is less likely to cause conflict to spill-over. From a conflict management perspective, identifying and tackling these highly transferable drivers can greatly enhance the efficiency of conflict management. However, managing these drivers often requires a delicate balance because having too much or too little of these factors can both cause conflict. For example, *inadequate communication* (Michael-Tsabari & Weiss, 2015) and *greater social interaction among family members* can both trigger family-related conflicts in family businesses (Davis & Harveston, 2001).

Third, an antecedent of one conflict might be used strategically to decrease the occurrence of another conflict. For example, *family involvement in the business* will likely increase disagreements about tasks (called task conflicts) among family members, but such involvement can help reduce task conflicts among members of the board of directors because family members often prefer to handle their disagreements outside the broad meeting (Zattoni et al., 2015).

Characteristics

Family-related conflicts include multiple types of conflicts (see Table 2-1). Conflict of interest arising from people's actions in pursuit of their own interests (Martínez-Ferrero et al., 2016) is among the most frequently mentioned family-related conflicts in the literature. Such conflicts can happen between the founder/owner and managers because the interest of a principal and an agent are not always in alignment (Meier & Schier, 2016; Zellweger & Kammerlander, 2015). Conflict of interests might also emerge between majority and minority family shareholders when they place different emphasis on growth versus dividends (Meier & Schier, 2016). Overall, these divergent interests often reflect different priorities among family members and stakeholders. As long as family members share a desire to keep the family in the business for the long-term, such conflicts of interests will continue to exist.

Another major type of conflict is work-family conflict, which exists at the family-business interface. Family involvement in the family business exposes family members to overlapping business and family roles. These roles increase the likelihood of incongruent role expectations that generate role or identity-based work-family conflicts (Cooper et al., 2013; Knapp et al., 2013). The long-term orientation of family businesses and enduring family relationships imply that such conflicts will likely persist.

Relationship conflict, the perception of personal animosities and incompatibility that spill into negative emotion such as annoyance and frustration, is another frequently mentioned family-related conflict (Kellermanns & Eddleston, 2004). While relationship conflict can happen at multiple interfaces, it is more likely to happen among family members because of the emotional bonding (Chirico & Salvato 2016). Moreover, due to enduring family relationships, conflicting parties cannot easily walk away from relationship conflicts and may collectively sustain the conflicts in equilibrium due to shared fears around loss of family contact or intimacy (Kaye, 1991).

Two other types of family-related conflicts are task conflicts and process conflicts. Task conflicts can be broadly considered as disagreements about the content and purpose of the tasks being performed (Jehn, 2014). Process conflicts are disagreements about methods of completing tasks (Cosier & Harvey, 1998). Scholars have used various labels to describe these two task-oriented conflicts and readers might refer to Jehn (2014) for a detailed review. Task and process conflicts can also happen at multiple interfaces and tend to increase as more families and generations get involved in the family business (Pieper et al., 2015).

While the various types of family-related conflicts are conceptually distinct, they are often empirically intertwined. For example, disagreements about a task (e.g., "that's not my job") might trigger or imply a relationship conflict considering that "family members rarely fight about what they say they are fighting about" (Pieper et al., 2013, p.492). As such, family business scholars often use conflicting parties to describe family-related conflicts (e.g., principal-agent conflict, father-daughter conflict, incumbent-successor conflict). A potential drawback of this approach is the tendency to neglect the multiplicity of conflict types that can co-exist within any conflict dyad (e.g., task and relationship conflicts might co-exist between the founder and managers). From a conflict management point of view, understanding the nature and content of the conflict is as important as knowing who is involved, because the former helps identify root causes. Therefore, we see knowledge about how different types of family-related conflicts dynamically interact as an important gap in family business conflict research.

Consequences

Prior studies often implicitly assumed that most family-related conflicts carry negative repercussions for family businesses. However, starting with Cosier and Harvey (1998), a growing number of studies have observed that family-related conflicts can carry both positive and negative consequences. For example, Kellermanns and Eddleston (2007) find that task conflict is most beneficial to the family business when the level of reciprocity among family members is low and family firm ownership resides within a single generation. Research about farm couples also shows that individuals with overlapping work and family roles may experience work-family enrichment if their partners have positive work attitudes (Sprung & Jex, 2017).

Interestingly, studies in this domain rarely examine conflict and conflict management together when assessing consequences. For example, Chirico and Salvato (2016) find that relationship conflicts among family members negatively affect family members' ability to recognize, understand, and exploit each other's knowledge. We argue that without accounting for the family members' ability to handle conflicts, it is not clear whether the positive or negative outcomes observed are caused by the conflicts or by (in) effective conflict management behavior. On the other hand, some authors investigate the relationship between different conflict management strategies and firm performance without taking types of conflicts into consideration (e.g., Sorenson, 1999). This, in turn, poorly illuminates the extent to which outcomes are caused by conflict management behavior or by specific types of conflict, or both. The disconnect between conflict and conflict management has prevented researchers from understanding the multiple pathways from conflicts to outcomes and the manner in which preventive or curative measures fit into the conflict process.

Finally, we note a lack of study of the circular relationship between conflict antecedents and consequences. From a process perspective, some factors can be antecedent to, as well as a consequence of, conflicts. Inadequate communication (Michael-Tsabari & Weiss, 2015) can drive family-related conflict, but conflicts can also decrease information sharing among family members (Eddleston & Kellermanns, 2007). Parent-child relationship conflicts might trigger sibling rivalry, which can provoke additional conflicts in the context of succession. Judgment about which factors are antecedents and which are consequences may appear arbitrary and will depend on the period observed. Similarly, the reviewed literature rarely examines reverse causality. For instance, it may be poor firm performance that causes family-related conflicts, and not vice versa. Accordingly, we argue that rather than forcing variables into an 'antecedent' or 'consequence' categories, more may be achieved by studying how conflicts change and what factors cause those changes to happen.

To date, conflict research in family businesses has progressed considerably with respect to the antecedents and outcomes of family-related conflicts. However, less attention has been paid to examining the conflict process and, in particular, how conflict management strategies are used in different conflict contexts, or how feedback loops influence conflict outcomes. Ineffective conflict management might trigger new episodes of conflict, as when parents with high levels of accommodation create family Fredos (i.e., family employees engaging in dysfunctional behaviors or failing to perform duties effectively, see Kidwell et al., 2013). Thus, in the remaining parts of this paper we focus our attention on integrating and extending the conflict management strategies discussed in the literature.

Management of Family-Related Conflicts

Building upon Putnam et al. (2016)'s framework to guide our analysis of conflict management, we identify three theoretical lenses in the conflict management framework: contingency (*either-or*), paradox (*both-and*) and dialectic (*more-than*). *The contingency perspective* features "either-or" thinking by stressing the importance of selecting strategies according to contingencies (Putnam et al., 2016; Thomas, 1992). This perspective can be found in traditional conflict management theory, in which conflicting parties can choose to either advance self-interest or sacrifice self to accommodate others' interest (Sorenson, 1999). The competition strategy reflects either-or thinking – a choice to win over others, rather than win together. *The paradox perspective* acknowledges the persistence and interdependency of contradictory forces (e.g., a conflict between majority and minority family shareholders concerning growth or liquidation) and argues that such paradoxical tensions should be managed concurrently by attending to competing demands simultaneously (Smith & Lewis, 2011). Compromising, which involves finding a middle ground between two conflicting parties, and collaborating, which entails finding a win-win solution without compromise, reflect this kind of "both-and" thinking. Finally, *the dialectic perspective* focuses on creating a higher order synthesis through the ongoing dynamic interplay between opposites (thesis vs. antithesis). Unlike the traditional contingency perspective, which has a short-term horizon (Thomas, 1992), the dialectic perspective is long-term and process oriented. Moreover, this perspective assumes that actors seek to dominate in an unbalanced power relation, which is different from the paradox perspective which assumes that actors embrace the tension in a balanced power relation (Hargrave & Van De Ven, 2017). As such, "more-than" approaches often involve mobilizing resources, reframing the relationship, and thinking outside the box. While the reviewed literature does not provide much information about the dialectic perspective in the family business context, a few authors suggest that family businesses can use the dialectic method to generate conflicting proposals and engage in debates to promote the positive effects of task conflicts (e.g., Cosier & Harvey, 1998). A detailed comparison of the three perspectives is presented in Table 2-2.

While this augmented framework appears universal in nature, we consider the complexity of family-related conflicts manifests in the pattern of conflict management (i.e. when and how different strategies are used). For example, compared with employees in nonfamily business, family employees have higher emotional attachment to the family business. This attachment often keeps them from withdrawing from the conflicts leads to a chronic cycle of conflict (Martin et al., 2017). In the following sections, we review the conflict management strategies used by family businesses with a particular focus on the associated family-related conflicts and family/business conditions. It is useful to note that, due to the limited number of empirical studies on conflict management, the effectiveness of many strategies has not yet been established.

Table 2-2

A Comparison of Theoretical Perspectives on Conflicts Management

Theoretical lens	**Contingency perspective**	**Paradox perspective**	**Dialectical Perspective**
Theoretical focus	Pragmatic	Visionary, prescriptive	Descriptive, focus on how tensions transform over time
Characteristics of conflicts and underlying tensions	Contradictory	Persistent, contradictory but interdependent	Persistent, contradictory but interdependent
Goal	Coping	Paradoxical resolution; To foster learning and creativity	Production of transformation through politics and conflicts
Assumptions	Contextual variables are given	Contextual variables are changeable	Actors resist the tension and seek to dominate and overcome opponents; Unstable, asymmetrical distribution of power
Conflict / tension management approach	Either-or -Defensive reactions (e.g., denial or withdrawal) -Selection or privileging one pole (e.g., focus on competition over cooperation) -Separation or segmentation (e.g., through temporal splitting or structural differentiation)	Both-and -Paradoxical thinking (increases cognitive abilities to recognize opposites) -Vacillation or spiraling inversion (shifting back and forth between two poles) -Integration and balance (e.g., compromise)	More-than -Reframing and transcendence (situate the pairs in a novel relationship) -Connecting, third space and dialogue (engage opposites in an ongoing dynamic play or create a third space for dialogue) -Reflective practice and serious playfulness (e.g., use humor to surface tension and develop reflective practice)

Theoretical lens	Contingency perspective	Paradox perspective	Dialectical Perspective
Outcome	Conflict is resolved	Ongoing reproduction of dynamic tension between opposites through differentiation and synergy	Conflict between contradictory elements unintendedly produces transformation, which later becomes a new element in tension as the dialectical process recycles

Note: Adapted from Hargrave & Van De Ven (2017), Putnam et al. (2016), Smith & Lewis (2011), Thomas (1992)

As noted earlier, 35 studies (of 93) addressed the management of family-related conflicts in family businesses. Below, we group these strategies into three board approaches, with each approach containing a number of strategies. Overall, the *more-than* approaches are mentioned most frequently (in 23 studies); followed by *either-or* (21 studies) and *both-and* approaches (18 studies). Our analysis focuses on the positive and negative outcomes associated with different conflict management strategies, types of conflicts addressed, and the key conditions facilitating their use.

Either-Or Approaches

We identify four strategies under the *either-or* category: avoidance, separation, accommodation, and competition. Each strategy can also take different forms in practice.

Avoidance

Avoidance reflects either-or thinking - a choice to stay away from the conflict rather than stay in it. Avoidance can involve a lack of response to conflict (Kellermanns & Eddleston, 2006), denial of conflict (Sorenson, 1999), and withdrawal from the business (Alderson, 2015) or the family (e.g., through a divorce, Galbraith, 2003). Avoidance often becomes the easiest choice at the early stage of a conflict process due to a desire to reduce the discomfort caused by conflicts (Fahed-Sreih, 2018). However, avoidance might be difficult to achieve when conflicting parties have an enduring family relationship (McKee et al., 2014) or there is a high-intensity conflict (Fahed-Sreih, 2018).

The literature generally holds a negative view of avoidance since it fails to address root causes. Avoidance often brings negative outcomes for both the family and the business (Sorenson, 1999). For example, Kaye and McCarthy (1996) find that frequent use of avoidance leads to low family satisfaction, high sibling rivalry, and low mutual trust among family members. However, some authors have different views regarding the effectiveness of avoidance. McKee et al. (2014) argue that avoidance can be a practical option in dealing with conflicts between family and nonfamily members, especially when nonfamily teams only exist for a short period of time. Sorenson (1999) contends that avoidance can be an effective strategy for family members to 'cool down'. Findings from the broader conflict literature also show that while avoidance might be an effective strategy for managing conflict in working groups (Murnighan & Conlon, 1991), beyond a critical point, avoidance will "shift from being a productive response to isolated differences to a self-reinforcing pathology that can significantly reduce organizational performance" (Perlow & Repenining, 2009, p.216). Overall, an avoidance strategy appears to be suitable for low-intensity conflicts between family and nonfamily members, but it is not recommended for dealing with conflicts between family members. In addition, avoidance can be used as a cool-down strategy, to allow people to find the appropriate long-term strategy and/or wait for the right moment to act (Fahed-Sreih, 2018).

Separation

Unlike avoidance, which handles conflicts passively, separation addresses conflicts in an active way with the goal of attenuating them by reducing confrontation. Separation appears to be a widely used conflict management strategy in family businesses. Separation can be achieved through a temporal splitting (e.g., scheduling a meeting when the other party cannot attend; see

Cosier & Harvey, 1998), or a spatial/structure splitting (e.g., separating family ownership from business management by hiring nonfamily professionals or creating separate divisions for conflicting family members; see Grote, 2003). Separation can also be used to deal with family-related conflicts concerning money and multiple identities. For example, family businesses often handle family employee payroll and dividends separately to avoid money-related conflicts (Alderson, 2015). Some family businesses also establish a family office or a family trust to separate family owners and avoid conflicts within a group of family owners (Zellweger & Kammerlander, 2015). In dealing with multiple roles, Knapp et al. (2013) find that individuals can segment themselves from the family or business by using family or business titles in conversation or by concealing a stigmatized or unwanted aspect of identity to reduce personal discomfort, avoid preconceived judgments, or obtain honest outsider opinions.

A benefit of separation is that it helps to reduce the complexity of conflicts by setting clear boundaries between conflicting parties or domains (i.e., family, business, and ownership) (Rhodes & Lansky, 2013). Delegating management authority to nonfamily employees might also help discipline nonperforming kin, produce higher commitment from nonfamily employees, and cope with increasingly competitive business environments (Stewart & Hitt, 2012). On the downside, separation can increase the cost of boundary crossing (e.g., a business owner looks for social support from family members; Knapp et al., 2013), create conflicts of interest between the owners and their agents (Stewart & Hitt, 2012) or incur double-agency costs associated with appointing agents to oversee agents (e.g., a trustee or a family officer acts as the first-tier agent while a corporate manager acts as the second-tier agent, see Zellweger & Kammerlander, 2015). In sum, despite some drawbacks, we observe that separation plays an important role in managing overlapping roles and responsibilities featured in family-related conflicts. Separation can take multiple modes in practice (e.g., see Stewart & Hitt, 2012 for six possible modes of professionalization) and the choice of this strategy over other alternatives seems to depend on personal preference and the associated costs and benefits (Knapp et al., 2013).

Accommodation

Accommodation is closely linked with altruism, a concept often mentioned in the family business literature (Eddleston & Kellermanns, 2007; Lubatkin & Schulze, 2005) and defined as a trait that positively links the welfare of an individual to the welfare of others (Kellermanns & Eddleston, 2004). Altruism might involve a set of exchange practices, such as gifts and favors that direct each family member's interest toward the family's mutual welfare (Lubatkin & Schulze, 2005), or behaviors such as distributing resources based on family members' needs and long-term well-being to foster family loyalty and reduce conflicts (Marchisio, Mazzola, Sciascia, Miles, & Astrachan, 2010). While altruism can exist in any type of organization, it is generally believed that the intensity of altruism is higher among family members (Kellermanns & Eddleston, 2004).

However, accommodation seems to be used infrequently in family businesses (Kellermanns & Eddleston, 2006; Sorenson, 1999). Where it is used, the literature has documented negative outcomes associated with this strategy. For example, accommodation may increase family members' sense of dependency and entitlement, lead to nepotism and the so-called Fredo effect (Kidwell et al., 2013). Being too accommodating might lead to the neglect of important business issues, sacrifice of business interests (Sorenson, 1999), "a sense of chronic organizational injustice" (Karra et al., 2006, p.872), or generation of new conflicts since the party accommodating is prone to take actions that compromise their welfare as well as the welfare of those who depend on them (Lubatkin & Schulze, 2005). On the positive side, accommodation via altruism may reduce relationship conflict in family businesses (Kellermanns & Eddleston, 2004) and contribute to positive family outcomes such as high family satisfaction (Sorenson, 1999).

Research also shows that altruism practiced with nonfamily members may create great loyalty in the early stage of family businesses and help build competitive firm advantage (Karra et al., 2006).

Overall, accommodation can be considered as a relationship-building strategy that is good for the family but not for the business. Depending on the nature of the conflict, this strategy should be used selectively when other solutions are not possible (Sorenson, 1999).

Domination/Competition

As the opposite of accommodation, a domination or competition strategy focuses on satisfying one's own interests and manifests as one party trying to impose his/her will, wishes, and perspectives on another party (Fahed-Sreih, 2018; Rhodes & Lanskey, 2013). Domination is often achieved by using authority (Dean, 1992; Frank et al., 2011; Sorenson, 1999), engaging in violence and threatening behavior to oblige the other party to obey (Fahed-Sreih, 2018), or competing (Marchisio et al., 2010).

As this strategy inevitably involves a winner and loser, the literature views it negatively. Competition may require lots of time and emotional resources to manage (Cosier & Harvey, 1998), will likely suppress the expression of diverse opinions (Kellermanns & Eddleston, 2006), impede effective knowledge flows, undermine decision quality (Sorenson, 1999), and lead to short-term success at the expense of long-term relationships (Kellermanns & Eddleston, 2006). However, this strategy might have positive effects if used appropriately. For example, parents can nurture a moderate level of competition among siblings as a way to strengthen their characters (Rhodes & Lanskey, 2013). Lambrecht and Lievens (2008) argue that "pruning the family tree" (i.e., consolidating family ownership by reducing the number of family shareholders or family managers) can increase family harmony and firm performance, reduce asymmetric altruism, and generate savings and surplus resources, provided that disinterested or incompetent family members want to liquidate their shares and that the firm has sufficient liquidity to make the purchase. In this sense, the domination strategy plays an important role in generating or sustaining the 'dominant coalition' in the family business.

Both-And Approaches

We identify four strategies under the *both-and* category: vacillation, compromise, collaboration, and integration.

Vacillation

Vacillation focuses on shifting back and forth between conflicting demands at different times or in different contexts (Putnam et al., 2016). For family businesses, vacillations often take the form of adjusting family resources to support the business or vice versa (e.g., putting off household tasks to undertake business activities or deferring business demands to spend more time with family, see Lee et al., 2017) or intertwining tasks such as doing business work at home (Lee et al., 2017). Such adjustments are often used during hectic times in the family/business, but the pattern of use differs across cultures and genders (e.g., male owners are more business-oriented, see Lee et al., 2017; Fitzgerald et al., 2001).

While vacillation provides flexibility and is able to address both family and business needs, its effectiveness depends on when, how, and how often various adjustments are used (Lee et al., 2017). Research shows that family businesses often benefit from the supply of family labor to the business during formative years but less so at a later stage of development (Olson et al., 2003). However, extensive use of family resources to support the business might bring negative outcomes such as developing resentment and stress in the family (Miller et al., 1999). Actors might also feel short-changed due to a constant need to shift back and forth (Fitzgerald et al., 2001).

Compromise

Compromise is often considered as a fair and 'least-worst' solution to conflict management (Cosier & Harvey, 1998) because it entails each party making sacrifices in order to keep the peace. A compromise solution can be reached through negotiation and mediation or be used as an alternative after other solutions such as competition or collaboration fail (Fahed-Sreih, 2018). Examples of compromise in family businesses include employing co-CEOs or establishing a revolving office (an office that may last for a year or two in which two equally qualified family members revolve in and out of the CEO position).

Compromise may help lessen relationship conflicts in the family (Kellermanns & Eddleston, 2006) and prevent new conflicts from happening (Fahed-Sreih, 2018). Inside the family, there are even ideas that "all you have to do is compromise, and everything will be fine" (Rhodes & Lanskey, 2013, p.18). However, since compromise only partially addresses the interests of the parties involved, some scholars view this strategy as a temporary expedient that may limit discussion or debate about new ideas or solutions (McKee et al., 2014). Overuse of compromise might cause decisions to be viewed with less respect and seriousness (Fahed-Sreih, 2018). Finally, Kellermanns and Eddleston (2006) argue that compromise is unsuitable for addressing conflicts rooted in differences in ideologies.

Collaboration

Collaboration is often perceived as a win-win strategy, which involves affected parties working together to find a mutually acceptable solution that fully satisfies the concerns of all parties. This strategy differs from compromise in that there is no need to make a sacrifice to reach a solution. Participative or joint decision-making (Alderson, 2015) is an example of collaboration in family businesses.

Collaboration is not easy to implement because it requires significant time investment (De Clercq & Belausteguigoitia, 2015), hard work, dedication, and commitment (Rhodes & Lanskey, 2013), as well as good interpersonal skills (Sorenson, 1999). Collaboration is more likely to occur under conditions of mutual trust and support, open communication, creativity, and a culture that values teamwork over individualism (Cosier & Harvey, 1998). As such, this strategy seems impractical for conflicts that demand a quick response and for families that might lack trust and a supportive organizational culture. For the same reason, Kellermanns and Eddleston (2006) view collaboration as a good strategy to reduce relationship conflicts because the collaboration process is relationship enhancing. Fahed-Sreih (2018) further points out that a collaboration strategy is best used between stakeholders who have equal power in an organization. This is because, in the joint decision-making process, power imbalance among stakeholders may cause certain parties with low power to be marginalized in decision-making. This suggestion lends support to paradox theory's assumption of a symmetric distribution of power, where each party cannot override the other.

Integration

Similar to collaboration, integration also aims for a win-win solution. However, integration has a particular focus on breaking down the boundaries between the family, business, and ownership systems and is often described as the opposite of a separation strategy. Integration is frequently used to deal with work-family conflicts. For example, female entrepreneurs may integrate their business practices with their lifestyles and personal commitments and establish habitual routines to address the tension between being a mother and being a business owner (Lewis et al., 2016). Similarly, business owners may integrate themselves into the family as a way to release emotional tension, find social support, or facilitate relationships (Knapp et al., 2013).

At the organizational level, integration can be used to deal with conflicts between family and nonfamily members. For example, research shows that family businesses can integrate nonfamily employees by being open, trusting, and inclusive, emphasizing shared vision or values or by thinking of nonfamily members as extended family (Kellermanns & Eddleston, 2004; Knapp et al., 2013). Integration at the organizational level can enhance family and nonfamily member unity, improve the quality of decision-making, help socialize new hires, manage nonfamily employees' expectations, and promote a long-term strategy (Knapp et al., 2013). However, it should be noted that integration practices might also blur the boundary between family identity and business identity, resurface the contradictions, and create new conflict potential (Knapp et al., 2013; Putnam et al., 2016).

More-Than Approaches

Involving a third-party, using governance tools, and transforming conflict through change and learning are three conflict management strategies identified in the *more-than* category. The last two strategies emerge from the family business literature and are not included in Putnam et al.'s (2016) original framework.

Involving a Third-Party

Third-party intervention has been a popular conflict management tool in family businesses because a neutral outsider can offer a fresh perspective, facilitate communications and interactions, and provide a needed outlet to dissipate negative emotions (McKee et al., 2014; Levinson, 1971; Rhodes & Lanskey, 2013). The most common third parties include other family members, such as a spouse or a parent (Janjuha-Jivraj, 2004), nonfamily members, family consultants (Kellermanns & Eddleston, 2006), family therapists, arbitrators, or lawyers (Fahed-Sreih, 2018; Haynes & Usdin, 1997; Lee & Danes, 2012). Sometimes, family businesses also seek volunteer help from family members or friends or hire temporary help for either the business or the family to address work-family conflicts (Lee et al., 2017).

Although most third-party interventions discussed in the family business literature are framed as a means to facilitate collaboration, we chose to put this strategy under the "*more-than*" category because there is some evidence showing actors' attempts to dominate the conflict process through the use of power. For example, conciliation and consultation are the most common forms of third-party interventions as these interventions are voluntary and do not require the family business to relinquish control to the third party (Kellermanns & Eddleston, 2006). However, depending on the nature and severity of conflicts, family businesses might also choose to use mediation, arbitration, or litigation. Clearly, these interventions differ in their costs, processes, and the power of the third party involved (e.g., a judge has the authority to render an independent decision without the parties' consent) and these differences will likely affect the pattern of use. From a dialectic perspective, the introduction of a third party not only affects conflict resolution (e.g., two conflicting parties collaborate through a third party and work out a solution), but also impacts the conflict dynamic, such that the power distribution between conflicting parties or, even, the rules governing the conflict might change.

We also identify two types of third-party interventions that have not been widely discussed. First, external information that is generally perceived as a standard can also function as a third-party that offers objectivity. For example, in dealing with compensation-related conflicts, a fair solution may be to benchmark compensation with market rates (Alderson, 2015). Second, sometimes third parties are brought in through scapegoating (Grote, 2003; Rhodes & Lanskey, 2013). Scapegoating allows individuals to blame someone else for causing the problem and often the scapegoats are expendable employees or weaker family members (Grote, 2003).

As we can see, the effectiveness of involving a third party depends on the types of third parties involved and the specific intervention chosen. For example, the reported resolution rate of mediation is between 75% and 85% (Haynes & Usdin, 1997; Kellermanns & Eddleston, 2006). However, when family members are used as the third party, the 'triangulated person' may be perceived as being biased towards one side and may become part of the conflict, widening its scope (Rhodes & Lanskey, 2013). Similarly, scapegoating might trigger new conflicts and prevent people from identifying root causes (Rhodes & Lanskey, 2013). To make the best use of third-party intervention, an ideal third party should (1) have ample distance from the conflicting parties to ensure objectivity (Grote, 2003); (2) have no stake in the outcome; and (3) be aware of the power hierarchy in the family business to avoid being manipulated or scapegoated (Haynes & Usdin, 1997; Rhodes & Lanskey, 2013).

Using Governance Tools

Corporate governance tools such as family meetings, family retreats, boards of directors, and family councils have also been mentioned as mechanisms for dealing with family-related conflicts in family businesses (e.g., Alderson, 2015; Brenes et al., 2006; Frank et al., 2011). We consider using governance tools as a *more-than* approach because this strategy focuses on the institutionalization of conflict management to deal with a variety of potential conflicts and the process of institutionalization implies the exercise of power. Such institutionalization clarifies roles and responsibilities, helps to prevent conflicts (Cosier & Harvey, 1998; Frank et al., 2011), and provides guidance to deal with recurrent conflicts (Pondy, 1967). These tools also facilitate communication and collaboration, help to create shared values, and embed codes of ethics (Kidwell et al., 2013). In addition, governance tools can also be used to maximize the positive effects of conflict. For example, Cosier and Harvey (1998) suggest that family businesses can program task conflicts into decision-making through assigning devil's advocates.

Corporate and family laws are another type of governance tool that is used at the societal level. For example, divorce and inheritance law both offer models of asset allocation at relationship termination (Tait, 2017). These laws provide legal and financial protections for minority shareholders in family businesses. Litigation can be considered as a combination of third-party intervention (attorneys as a third-party) and the use of governance tools (laws as a governance system). Crucially, implementing these governance tools demands fair process and the ability to amend rules as needed (Van der Heyden et al., 2005). Moreover, the legacy of ineffective conflict management strategies might become a part of family culture and be passed to future generations (Rhodes & Lanskey, 2013).

Changing and/or Learning

This strategy focuses on finding a new way to handle conflicts through changing existing practices or learning new tactics. We consider this as a *more-than* approach because change and leaning imply transformations in politics, power, relationships, attitudes, and values. Such transformation aligns with the dialectic theory in looking for a higher-order synthesis of conflicting parties. For example, Filbeck and Smith (1997) suggest that educating family business members in personality differences can improve morale and strengthen interpersonal relationships. Pieper et al. (2015) find that multifamily businesses often adopt a strategy of simple rules to facilitate mutual monitoring and create a self-reinforcing, open governance process, and that these rules are developed out of experiences and mistakes. Both examples illustrate conflict management as a learning process, whereby learning transforms the relationship between conflicting parties.

Research finds that family adaptability, defined as "the ability of a marital or family system to change its power structure, role relationship, and relationship rules in response to situational and development stress" (Olson et al., 1983, p.70), is more important than family cohesion in predicting organizational commitment, work satisfaction, and life satisfaction (Lee, 2006). In this way, it is important for family businesses to learn and to adapt their conflict management strategies to changing conditions (Fock, 1998).

While changing/learning proves to be important in the context of conflict management, this strategy is not without challenges and problems. First, both changing and learning take time. Therefore, this strategy may not be appropriate when a short-term solution is required. Second, learning often requires behavior change, and change may trigger resistance and provoke new conflicts. For example, Lewis et al. (2016) find that women pursue entrepreneurship as a way to deal with work-family conflict. However, these businesswomen have to deal with new conflicts that resulted from the identity transition from a mother to a "mompreneur".

To summarize, our review of conflict management strategies in the family business literature reveals several insights. First, the unique family business context influences the use of conflict management strategies. For example, the prevalence of relationship conflicts and the relatively high emotional bonding in the family likely contribute to the popularity of separation and third-party intervention. This is because the need for a de-emotionalization and objectivity is high, considering that negative emotions might precipitate additional conflicts. Second, comparatively, *either-or* approaches such as avoidance and accommodation are easier to implement and are often used as short-term resolutions. *Both-and* and *more-than* approaches such as collaboration and changing/learning require more time and energy to implement and are often pursued as long-term strategies. This finding suggests that it is possible for a family business to use multiple strategies at the same time to address both short-term needs and long-term goals. Third, the use of one conflict management strategy may facilitate or inhibit the use of another conflict management strategy. For example, Eddleston and Kellermanns (2007) find that accommodation or altruism (an *either-or* approach) can facilitate a participative strategy (a *both-and* approach). Altruism is an individual level conflict management tactic while a participative strategy operates at the organizational level. Such findings suggest that family businesses can combine conflict management strategies at different levels to achieve optimal outcomes for both the family and the business. We present a detailed summary of the eleven conflict management strategies in Table 2-3 with the types of conflicts they address, the conditions facilitating their use, and the possible outcomes.

Table 2-3

Conflict Management Strategies Used in Family Business

Conflict Management Strategies	Positive Outcomes	Negative Outcomes
1. Either-Or Approaches **1.1 Avoidance** • Often used at the early stage of a conflict process (Fahed-Sreih, 2018) • Not suitable for addressing conflicts among family members (McKee et al., 2014) or high-intensity conflicts (Fahed-Sreih, 2018) • Might be suitable for addressing conflicts between family and nonfamily members if the latter exist for a short period of time (McKee et al., 2014)		
Individual-level avoidance • Denying the conflict (Sorenson, 1999) • Leaving the family or business (Alderson, 2015) • Scheduling meeting when the other party cannot attend (Cosier &Harvey, 1998)	***Individual-level outcome*** • Helps to cool down emotion (Fahed-Sreih, 2018) ***Organizational-level outcome*** • Provides time to find the appropriate conflict management strategy, and/or wait for the right moment to act (Fahed-Sreih, 2018)	***Individual-level outcome*** • Fails to address root causes (Cosier & Harvey, 1998) ***Organizational-level outcome*** • Frequent use might result in low family satisfaction, high sibling rivalry, and low mutual trust (Kaye & McCarthy, 1996) • Unlikely to encourage optimal levels of task conflict (Kellermanns & Eddleston, 2006)
1.2 Separation • Plays an important role in managing overlapping roles and responsibilities featured in family-related conflicts. • Suitable for addressing family-related conflicts concerning money and multiple identities (Alderson, 2015; Knapp et al., 2013) • The choice of this strategy over other alternatives seems to depend on personal preference and the associated costs and benefits (Knapp et al., 2013)		
Individual-level separation • Scheduling a meeting when the other party cannot attend (Cosier & Harvey, 1998) • Using family or business titles in conversation or concealing a stigmatized or unwanted aspect of identity (Knapp et al., 2013) ***Organizational-level separation*** • Emphasizing boundaries and domains (Knapp et al., 2013) • Splitting the family business (Alderson, 2015; Lambrecht & Lievens,2008) • Separating family ownership from business management (Grote, 2003)	***Individual-level outcome*** • Helps to cool down emotion (Fahed-Sreih, 2018) • Reduces the complexity of conflicts (Rhodes & Lansky, 2013) • Concealing a stigmatized or unwanted aspect of identity helps to reduce personal discomfort, avoid preconceived judgments, or obtain honest outsider opinions (Knapp et al., 2013) ***Organizational-level outcome*** (Stewart & Hitt,2012) • Separating family ownership from business management helps discipline nonperforming kin, produces higher commitment from nonfamily employees, and copes with increasingly competitive business environments	***Individual-level outcome*** • Might increase the cost of boundary crossing when one exits and enters roles by overcoming role boundaries (see Knapp et al., 2013) ***Organizational-level outcome*** • Separating family ownership from business management might increase agency costs (Stewart & Hitt, 2012) • Might incur double-agency costs associated with appointing agents to oversee agents (Zellweger & Kammerlander, 2015)

Conflict Management Strategies	Positive Outcomes	Negative Outcomes
1.3 Accommodation • A relationship-building strategy that is good for the family but not for the business (Sorenson,1999) • Suitable for addressing conflicts between family owners and nonfamily employees in the early stage of family businesses (Karra et al., 2006) • Should be used selectively when other solutions are not possible (Sorenson, 1999)		
Individual-level accommodation • Being altruistic (Kellermanns & Eddleston, 2004) ***Organizational-level accommodation*** • Paying extra dividends to reduce owner-owner conflict (Marchisio et al., 2010)	***Individual-level outcome*** • Reduces the occurrence of relationship conflict (Eddleston & Kellermanns, 2007) ***Organizational-level outcome*** • Fosters loyalty and commitment to the family's long-term prosperity (Eddleston & Kellermanns, 2007) • Altruism practiced with nonfamily members may create great loyalty in the early stage of family businesses and help build competitive firm advantage (Karra et al., 2006)	***Individual-level outcome*** • One party may feel defeated (Cosier & Harvey, 1998) • Might increase family members' sense of dependency and entitlement, lead to nepotism and non-performing family employees (Sorenson,1999) ***Organizational-level outcome*** • Might lead to the neglect of important business issues and sacrifices of business interests (Sorenson,1999) • Might create a sense of organizational injustice (Karra et al., 2006) or generate new conflicts (Lubatkin & Schulze, 2005)
1.4 Domination/Competition • Plays an important role in generating or sustaining the 'dominant coalition' in the family business. • Pruning the family tree is better done before generational transition (Lambrecht & Lievens,2008) • Pruning the family tree requires (1) significant amount of liquidity; (2) uninterested or incompetent family members want to liquidate their shares; (3) divergent owner visions (Lambrecht & Lievens,2008)		
Individual-level competition • Competing with other family members (Marchisio et al., 2010) • Using authority (Dean, 1992) • Using violence, threatening, or bullying (Fahed-Sreih, 2018; Rhodes & Lanskey, 2013) ***Organizational-level domination*** • Reducing the number of family shareholders or managers (Lambrecht & Lievens, 2008) • Emphasizing clear hierarchical ranking (Frank et al., 2011) or through centralized control (Sorenson, 1999)	***Individual-level outcome*** • A moderate level of competition among siblings might help strengthen characters (Rhodes & Lanskey, 2013) ***Organizational-level outcome*** (Lambrecht & Lievens, 2008) • Pruning the family tree helps to increase family harmony and firm performance; • Reduces asymmetric altruism; • Helps generate savings and surplus resources	***Individual-level outcome*** • Involves lots of time and emotional resources (Cosier & Harvey, 1998); ***Organizational-level outcome*** • Might induce negative affect and damage family relationships (Sorenson, 1999); • Might suppress the expression of diverse opinions (Kellermanns & Eddleston, 2006), stifles effective knowledge flows, and undermines decision quality (De Clercq & Belausteguigoitia, 2015)

Conflict Management Strategies	Positive Outcomes	Negative Outcomes
		• Pruning the family tree might consume growth potential (Lambrecht & Lievens, 2008)
2. Both-And Approaches **2.1 Vacillation** • Suitable for addressing work-family conflicts and often used in hectic times in the family/business (Lee et al., 2017) • Better avoid extensive use (Lee et al., 2017)		
Individual-level vacillation • Doing business work at home or vice versa (Lee et al., 2017) ***Organizational-level vacillation*** (Lee et al., 2017) • Adjusting family resources to support the business or vice versa	***Organizational-level outcome*** • Is flexible and able to address both family and business needs • Family business often benefit from the supply of family labor to the business during formative years but less so at a later stage of development (Olson et al., 2003)	***Individual-level outcome*** • Actors might feel short-changed due to a constant need to shift back and forth (Fitzgerald et al., 2001) ***Organizational-level outcome*** • Extensive use may develop resentment and stress within the family (Miller et al., 1999)
2.2 Compromise • Can be used as an alternative after other solutions such as competition or collaboration fail (Fahed-Sreih, 2018) • Unsuitable for addressing conflicts rooted in ideological differences (Kellermanns & Eddleston, 2006) • Should be used moderately (Fahed-Sreih, 2018)		
Individual-level compromise • Focusing on finding a middle ground between the two conflicting parties ***Organizational-level compromise*** • Using Co-CEOs or revolving offices (Alderson, 2015)	***Individual-level outcome*** • A fair solution (Cosier & Harvey, 1998) ***Organizational-level outcome*** • Lessens relationship conflicts in the family (Kellermanns & Eddleston, 2006) • Prevents new conflicts from happening (Fahed-Sreih, 2018)	***Individual-level outcome*** • Only partially addresses the interests of the parties involved (McKee et al., 2014) ***Organizational-level outcome*** • A temporary solution that limits the discussion of new ideas (McKee et al., 2014) • Overuse might cause decisions to be viewed with less respect and seriousness (Fahed-Sreih, 2018)
2.3 Collaboration • Likely to occur when there is mutual trust and support, open communication, and creativity (Cosier & Harvey, 1998) • Is best used among stakeholders with equal power (Fahed-Sreih, 2018) • Not suitable for addressing conflicts that demand a quick response or solution (De Clercq & Belausteguigoitia, 2015)		

Conflict Management Strategies	Positive Outcomes	Negative Outcomes
Organizational-level collaboration • Participative decision-making (Alderson, 2015; Frank et al., 2011) • Collaborating through negotiation (Fahed-Sreih, 2018)	***Individual-level outcome*** • A win-win strategy (Sorenson, 1999) ***Organizational-level outcome*** • Improves family businesses' financial performance and contributes to positive family outcomes (Sorenson, 1999) • Helps to generate constructive conflicts and reduce relationship conflict (Kellermanns and Eddleston, 2006)	***Individual-level outcome*** • Requires time investment, hard work, commitment, and good interpersonal skills (Rhodes & Lanskey, 2013; Sorenson, 1999) ***Organizational-level outcome*** • Power imbalance among stakeholders may cause certain parties with low power to be marginalized in decision-making (Fahed-Sreih, 2018)
2.4 Integration • Focuses on breaking down the boundaries between the family, business, and ownership systems (Knapp et al., 2013) • Often used to address work-family conflicts or conflicts related to multiple roles or identities (Lewis et al., 2016; Knapp et al., 2013) • Also suitable for addressing conflicts between family and nonfamily members (Knapp et al., 2013)		
Individual-level integration (Knapp et al., 2013; Lewis et al., 2016) • Embedding habitual routines in business practices • Being sensitive to others' perspective and adapting conversation accordingly • Finding common grounds between family and nonfamily members ***Organizational-level integration*** (Knapp et al., 2013) • Emphasizing values and work ethics • Being open and trusting	***Individual-level outcome*** (Knapp et al., 2013) • Allows for easy boundary crossing among different systems • Helps to release emotional tension, find social support, or facilitate relationships ***Organizational-level outcome*** (Knapp et al., 2013) • Enhances family and nonfamily member unity; • Improves the quality of decision-making; • Helps socialize new hires, manage nonfamily employees' expectations, and promote a long-term strategy	***Individual-level outcome*** • May increase ambiguity and blur the boundary among different systems (Knapp et al., 2013) ***Organizational-level outcome*** • May resurface the contradictions and create new conflict potential (Knapp et al., 2013; Putnam et al., 2016).
3. More-Than Approaches **3.1 Involving a Third-Party** • Often used to address sustained relationship conflicts between family members (Kellermanns & Eddleston, 2006) • Can also be used to address work-family conflicts (Lee et al., 2017) • The effectiveness depends on the nature and severity of the conflicts, the types of third parties involved, and the specific intervention chosen. • An ideal third-party should (1) have ample distance with the conflicting parties to ensure objectivity; (2) have no stake in the outcome; (3) be aware of the power hierarchy in the family business to avoid being manipulated or scapegoated		

Conflict Management Strategies	Positive Outcomes	Negative Outcomes
Individual-level intervention • Using other family members or nonfamily members to mediate conflicts (Alderson, 2015; Kellermann & Eddleston, 2006) • Obtaining volunteer help from family members or friends (Lee et al., 2017) ***Organizational-level intervention*** • Using professional consultants, therapists, or arbitrators (Fahed-Sreih, 2018; Grote, 2003) • Hiring temporary help for either the business or the family (Lee et al., 2017). • Using external information as benchmark (Alderson, 2015) • Scapegoating (Rhodes & Lanskey, 2013)	***Individual-level outcome*** • Helps to diffuse tension (Grote, 2003) and dissipate negative emotion in the short term (Rhodes & Lanskey, 2013) ***Organizational-level outcome*** • Helps to reduces the sustained relationship conflict in family businesses (Kellermanns & Eddleston, 2006) • Third parties can function as an information broker and thus allow the positive effects of task conflict to develop (Kellermanns & Eddleston, 2006)	***Individual-level outcome*** • Some family members might be too emotionally fragile for mediation process (Haynes & Usdin, 1997) • The triangulated person might be viewed as biased and become part of the conflict (Rhodes & Lanskey, 2013) ***Organizational-level outcome*** • The family business might need to relinquish control to the third party (Kellermanns & Eddleston, 2006) • Scapegoating might trigger new conflicts and prevent people from identifying root causes (Rhodes & Lanskey, 2013)
3.2 Using Governance Tools • Can be used to deal with a variety of family-related conflicts, especially the recurrent ones (Pondy, 1967) • Suitable to use as a long-term strategy considering the long-term orientation of these governance tools		
Organizational-level governance • Using family meetings, family retreat, and family councils (Alderson, 2015) • Using board of directors or advisors (Alderson, 2015) • Using family constitution or protocol to set rules and manage anticipated conflicts in decision-making (Alderson, 2015; Kidwell et al., 2013) ***Societal-level governance*** • Using corporate and family laws (Tait, 2017)	***Organizational-level outcome*** • Helps to facilitate communication and collaboration, create shared values, and provide guidance to deal with recurrent conflicts (Cosier & Harvey, 1998; Kidwell et al., 2013) • Board of directors help to increase professionalism of family businesses and improve decision making (Alderson, 2015) • Corporate and family laws help to provide legal and financial protections for minority shareholders in family business (Tait, 2017)	***Organizational-level outcome*** • Ineffective conflict management practices might be institutionalized and make the family business rigid (Rhodes & Lanskey, 2013)
3.3 Changing and/or Learning • Can be used to deal with a variety of family-related conflicts • Suitable to use as a long-term strategy as both changing and learning take time		

Conflict Management Strategies	Positive Outcomes	Negative Outcomes
Individual-level learning (Filbeck & Smith, 1997) • Learning about personality differences • Learning communication skills ***Organizational-level changes*** • Adapting to changes (Lee, 2006)	***Individual-level outcome*** • Learning about personality differences helps to reduce hostility, resentment, and misunderstanding, and become tolerant and open-minded to others (Filbeck & Smith, 1997)	***Organizational-level outcome*** • Takes time to happen. Change might trigger resistance and bring new conflicts.

Discussion

Our review illustrates that the understanding of family-related conflicts has evolved *from a purely negative* view towards a more encompassing view by considering both the negative and positive sides of conflicts. How could family businesses better manage family-related conflicts to maximize its positive effects and minimize negative outcomes? Answering this question requires new knowledge about how different family-related conflicts and their management strategies interact with each other and evolve over time. The long-term orientation of family businesses demands researchers look beyond the one-time settlement of family-related conflicts. Our review took a step in this direction by synthesizing and critically evaluating conflict management strategies with regard to their connections to particular family-related conflicts and likely benefits/limitations (see Table 2-3).

Further, by integrating paradox and dialectic theories into our analytical framework, we hope to bring new perspectives and opportunities to extend current conflict management theory in and beyond the family business context. For example, despite the prevalent use of third-party interventions in family businesses, we know little about how third parties transform the conflicting parties, the agenda of conflict issues, the rules governing conflict, and the structure of social relationships and power distribution. Considering the long-term orientation of family business and the importance of maintaining a dominant family coalition, we believe that dialectic theory might be particularly useful in theorizing family-related conflict dynamics in the future.

On the practice side, our review presents a balanced view of both the positive and the negative consequences associated with each conflict management strategy. For example, the avoidance strategy, which is often considered as a less favorable strategy, might be useful in dealing with family-related conflicts between family and nonfamily members. Similarly, third-party intervention might trigger new family-related conflicts if the third party is not carefully selected. By presenting the pros and cons of conflict management strategies, we hope to raise the awareness of the paradox of conflict management: strategies to enhance productive conflicts might be at odds with efforts to reduce dysfunctional conflicts, and strategies to manage one type of family-related conflict might trigger new conflicts at other interfaces. The implications for practice concern adaptability in response to family-related conflicts. As these conflicts (and the contexts in which they are embedded) evolve, family businesses that are able to adapt their managerial responses accordingly are more likely to survive and prosper.

Areas for Future Research

In reflecting upon our review and drawing insights from the broader conflict process research, we identify three promising avenues for future research:

Connecting Conflict and Conflict Management through Contexts

Our review reveals that family-related conflict and conflict management are often studied in isolation. Assessment of the consequences of family-related conflicts often ignores the firm's ability to manage such conflicts, while evaluations of the effectiveness of conflict management strategies frequently neglect the characteristics of conflicts and the contexts in which they are embedded. Therefore, an important area for future research is to better understand how family-related conflicts and conflict management strategies co-evolve over time. One way is to connect both through longitudinal research designs that examine how a specific family-related conflict escalates and/or de-escalates and the pattern of conflict management strategies over time. For example, based on retrospective interviews, Großmann and Schlippe (2015) developed eight propositions to describe the escalating dynamics of family-related conflicts that lead to family business failure. The process was described as a communicative system, and it often began with a major event, such as a death, as the turning points. According to the authors, it is not yet clear what specific dynamics finally led to the demise of the family business. Therefore, future researchers might consider using comparative studies to explore different conflict escalation/de-escalation patterns in successful and unsuccessful family firms.

Another way to connect conflict and conflict management is to examine them at multiple levels to discover how conflicts and conflict management at the individual level shape the conflict dynamics at the business and business-family-ownership system levels or vice versa. As our review shows, the resolution of one conflict might trigger another conflict at a different level. We believe there is a need to better understand how family-related conflicts interact with other conflicts occurring within each interface, and what conflict management strategies can be used to prevent conflict spillover. Putnam et al. (2016) encourage researchers to iteratively ‘zoom in and out’ of the conflict or tension episodes to discover how conflict management strategies recursively feed into future actions. Essentially, “zooming out reveals different underlying interconnections, and zooming in allows for making sense of the multiple interconnections… thereby identifying the dominant processes that drive a system’s emergence” (Schad & Bansal, 2018, p.1498).

With regard to research methods, ethnographic designs and system dynamics methods are likely to be particularly promising given the complexity and subtlety of conflicts in family businesses. Ethnographic designs place researchers in the family business context in real time and allow for the capture of stories and insights that otherwise would not be possible to obtain. System dynamics methods, such as systems thinking and causal loop diagramming, are also increasingly used by scholars to study conflicts and paradoxes (Cronin & Bezrukova, 2019; Schad & Bansal, 2018).

The Role of Emotion-Based Strategies in Managing Family-Related Conflict

Our review also reveals that emotional attachment among family members makes relationship conflicts commonplace in family businesses. Such attachment also explains why separation and third-party interventions are popular conflict management strategies as these strategies help to de-emotionalize family-related conflicts. While emotions are somehow viewed as irrational and bad for making rational decisions, some conflict scholars argue that “conflict is an emotionally defined and driven process” (Bodtker & Jameson, 2001, p.263). For example, Jehn (1997, p.544) finds that negative emotionality (referring to “the amount of negative affect exhibited and felt during the conflict”) is not only present in relationship conflicts but also present in task and process conflicts. Team members' emotional states also influence their choice of conflict-management strategies (Desivilya & Yagil, 2005).

Evidence points to the importance of emotion in managing conflicts, but the emotion-based strategy is almost absent in the literature on conflict management in family businesses. While emotionally focused therapy (EFT) has been used to deal with intra-family conflicts (Danes & Morgan, 2004), such approaches have mainly been practiced with couples and have not been widely studied in the context of family businesses. For example, EFT studies have shown that intimate self-disclosure and the expression of underlying feelings and needs help to shift interaction patterns and lead to a better marital relationship (Greenman & Johnson, 2013; Johnson, Hunsley, Greenberg, & Schindler, 1999). It would be interesting to explore to what extent, and with what success these emotion-based interventions can be practiced with family employees or even nonfamily employees who are treated as quasi-family members.

Family business scholars might also benefit from exploring the emotion-based strategies mentioned in the paradox/dialectic literature. For example, serious playfulness such as engaging in humor, using irony or comic relief is an important strategy for individuals dealing with tensions (Schad et al., 2016). The broader conflict research also holds that humor is a tool to manage the emotions of others as well as of the self (Francis, 1994) and that humor can be used as a conversational resource for mitigating conflict in interactions (Norrick & Spitz, 2008). In the context of family businesses, the function of humor has also been studied, however, there has been no explicit connection to conflict management. For example, Vinton (1989) finds that in one family-owned business humor takes a variety of forms such as telling self-ridiculing jokes, teasing, and bantering. Different forms of humor were found to perform particular functions (e.g., bantering or joking to get across a criticism to a higher-status person helped lessen the status differentials that existed among the employees). It might be useful to further explore how different types of humor help to address different kinds of family-related conflicts in family businesses.

The Changing Patterns of Conflict and Conflict Management in Family Businesses

Family businesses are heterogeneous in terms of the forms and degrees of family involvement (Chua et al., 2012). This implies that different family characteristics, such as emotional attachment, long-term orientation, or the power distribution among family members, likely shape family-related conflicts and how these conflicts can be managed. As such, an important direction for future research might be to explore the similarities and differences in patterns of family-related conflicts and the associated conflict management strategies used across different types of family businesses. To date, family business scholars have developed various typologies or taxonomies of family businesses (Neubaum et al., 2019). We recommend that future research pay special attention to those typologies or taxonomies that contain dimensions of power distribution and emotion because our review reveals that these factors affect both the manifestation of family-related conflicts and the use of conflict management strategies. Through comparative analysis, future researchers might explain what factors drive differences in family-related conflicts that exist in different family businesses, and what conflict management strategies are used to resolve or transform those conflicts. Understanding such variation has obvious implications for strategy making processes and key performance outcomes in family businesses.

Another possible avenue is to explore the patterns of those family-related conflicts that occur between family and nonfamily employees. For example, with regard to owner-manager agency conflicts, Karra et al. (2006) find that altruism/accommodation practiced by the family owner with nonfamily managers may create greater loyalty in the early stage of family businesses and thereby help build competitive firm advantage. This suggests that the outcomes of conflict management can be quite different when nonfamily vs. family members are involved, and this might be a rich area for future study.

With regard to methods, researchers might consider using dispersion composition models (Holt et al., 2017) or configuration approaches (Stanley et al., 2017). Dispersion composition models conceptualize within-group variance as a focal construct (Holt et al., 2017). Configuration approaches focus on the construction of an integrated pattern of complex relationships among different factors. These methods appear promising because they are designed to assess heterogeneity and its consequences among family businesses (Stanley et al., 2017).

Conclusion

Our review was stimulated by concerns that, whilst the study of family-related conflicts in family businesses has flourished over the last decade, relatively little attention has been paid to connecting what we know about family-related conflicts with the conflict management strategies used in and beyond family businesses. By critically examining drivers, characteristics, and outcomes of family-related conflicts with respect to their implications for conflict management strategies, we contribute to the literature by connecting these two elements through a process perspective that has not been explored by previous reviews. Moreover, we enhance the scope of the present review relative to prior reviews by identifying the connections between types of family-related conflicts and conflict management strategies used in family businesses. We also developed a new framework for analyzing conflict management strategies by incorporating paradox and dialectic perspectives in addition to the traditional contingency perspective. This framework offers theoretical advantages over the traditional conflict management theory, which fails to capture some important conflict management strategies used in family businesses (e.g., using governance tools and changing/learning) and explain why family businesses prefer certain strategies (e.g., separation and third-party intervention) over others. We hope that our study serves as a modest foundation for the exciting research opportunities on family-related conflict that lie ahead of us.

Notes

1. The majority of the articles included in our review (56 out of 93 or 60%) are from the following seven journals: *Family Business Revie* (26)*, Entrepreneurship Theory and Practice* (10), *Journal of Family Business Strategy* (5), *Journal of Family Business Management* (4), *Journal of Business Venturing* (4), *Journal of Small Business Management* (4), *Journal of Business Research* (3). The number of articles from each journal is indicated in parentheses. Articles in *Family Business Review* comprise 28% of the total.
2. References marked with an asterisk (*) indicate studies concerned with conflict management strategies in family businesses.

References

*Alderson, K. (2015). Conflict management and resolution in family-owned businesses. *Journal of Family Business Management*, 5(2), 140–156.

Bodtker, A. M., & Katz Jameson, J. (2001). Emotion in conflict formation and its transformation: Application to organizational conflict management. *International Journal of Conflict Management*, *12*(3), 259-275.

*Botero, I. C., Gonzalo, G. B., Jose Bernardo, B. R., & Maria Piedad, L. V. (2015). Family protocols as governance tools. *Journal of Family Business Management*, 5(2), 218–237.

*Brenes, E. R., Madrigal, K., & Molina-Navarro, G. E. (2006). Family business structure and succession: Critical topics in Latin American experience. *Journal of Business Research*, 59(3), 372–374.

Chen, S., Chen, X., & Cheng, Q. (2014). Conservatism and equity ownership of the founding family. *European Accounting Review*, *23*(3), 403-430.

Chirico, F., & Salvato, C. (2016). Knowledge internalization and product development in family firms: When relational and affective factors matter. *Entrepreneurship Theory and Practice*, 40(1), 201–229.

Chrisman, J. J., Chua, J. H., Pearson, A. W., & Barnett, T. (2012). Family involvement, family influence, and family–centered non–economic goals in small firms. *Entrepreneurship Theory and Practice*, *36*(2), 267-293.

Chua, J. H., Chrisman, J. J., & Sharma, P. (1999). Defining the family business by behavior. *Entrepreneurship Theory and Practice*, 23(4), 19-39.

Chua, J. H., Chrisman, J. J., Steier, L. P., & Rau, S. B. (2012). Sources of heterogeneity in family firms: An introduction. *Entrepreneurship Theory and Practice*, 36(6), 1103-1113

Cooper, J. T., Kidwell, R. E., & Eddleston, K. A. (2013). Boss and parent, employee and child: Work-family roles and deviant behavior in the family firm. *Family Relations*, *62*(3), 457-471.

*Cosier, J. a., & Harvey, M. (1998). The hidden strengths in family business: Functional conflict. *Family Business Review*, 11(1), 75–80.

Cronin, M. A., & Bezrukova, K. (2019). Conflict management through the lens of system dynamics. *Academy of Management Annals*, *13*(2), 770–806.

Danes, S. M., & Morgan, E. A. (2004). Family business-owning couples: An EFT view into their unique conflict culture. *Contemporary Family Therapy*, *26*(3), 241-260.

Davis, P. S., & Harveston, P. D. (2001). The phenomenon of substantive conflict in family firm: A cross-generational study. *Journal of Small Business Management*, 39(1), 14–30.

Davis, P. S., & Harveston, P. D. (1999). In the founder's shadow: Conflict in the family firm. *Family Business Review*, 12(4), 311–323.

*Dean, S. M. (1992). Characteristics of African American family-owned businesses in Los Angeles. *Family Business Review*, 5(4), 373-395.

*De Clercq, D., & Belausteguigoitia, I. (2015). Intergenerational strategy involvement and family firms' innovation pursuits: The critical roles of conflict management and social capital. *Journal of Family Business Strategy*, 6(3), 178–189.

De Massis, A., Kotlar, J., Campopiano, G., & Cassia, L. (2015). The Impact of family involvement on SMEs' performance: Theory and evidence. *Journal of Small Business Management*, 53(4), 924–948.

Desivilya, H. S., & Yagil, D. (2005). The role of emotions in conflict management: The case of work teams. *International Journal of Conflict Management*, *16*(1), 55-69.

*Eddleston, K. A., & Kellermanns, F. W. (2007). Destructive and productive family relationships: A stewardship theory perspective. *Journal of Business Venturing*, 22(4), 545–565.

Ensley, M. D., Pearson, A. W., & Amason, A. C. (2002). Understanding the dynamics of new venture top management teams: Cohesion, conflict, and new venture performance. *Journal of Business Venturing*, 17(4), 365–386.

*Fahed-Sreih, J. (2018). *Conflict in family businesses: Conflict, models, and practices*. Springer.

*Filbeck, G., & Smith, L. (1997). Team building and conflict management strategies for family business. *Family Business Review,* 10(4), 339–352.

*Fitzgerald, M. A., Winter, M., Miller, N. J., & Paul, J. (2001). Adjustment strategies in the family business: Implications of gender and management role. *Journal of Family and Economic Issues*, *22*(3), 265-291.

*Fock, S. (1998). The impact of family conflicts on the development of the Chinese entrepreneurially managed family business: The Yeo Hiap Seng case in Singapore. *Journal of Small Business & Entrepreneurship*, 15(2), 88–102.

Francis, L. E. (1994). Laughter, the best mediation: Humor as emotion management in interaction. *Symbolic Interaction*, *17*(2), 147-163.

*Frank, H., Kessler, A., Nosé, L., & Suchy, D. (2011). Conflicts in family firms: state of the art and perspectives for future research. *Journal of Family Business Management*, 1(2), 130–153.

Galbraith, C. S. (2003). Divorce and the financial performance of small family businesses: An exploratory study. *Journal of Small Business Management*, 41(3), 296–309.

Greenhaus, J.H., & Beutell, N.J. (1985), Sources of conflict between work and family roles, *Academy of Management Review*, 10 (1), 76-88

Greenman, P. S., & Johnson, S. M. (2013). Process research on emotionally focused therapy (EFT) for couples: Linking theory to practice. *Family Process*, 52(1), 46-61.

*Grote, J. (2003). Conflicting generations: A new theory of family business rivalry. *Family Business Review*, 16(2), 113–124.

Großmann, S., & Schlippe, A. V. (2015). Family businesses: fertile environments for conflict. *Journal of Family Business Management*, 5(2), 294-314.

Hargrave, T. J., & Van De Ven, A. H. (2017). Integrating dialectical and paradox perspectives on managing contradictions in organizations. *Organization Studies*, 38 (3–4), 319-339

Harvey, M. & Evans, R. E. (1994). Family business and multiple levels of conflict. *Family Business Review*, 7(4), 331-348.

*Haynes, J. M., Usdin, T. M., Begler, A., Kaye, K., & Kaslow, F. (1997). Resolving family business disputes through mediation. *Family Business Review*, 10(2), 115–134.

Holt, D. T., Madison, K., & Kellermanns, F. W. (2017). Variance in family members' assessments: The importance of dispersion modeling in family firm research. *Family Business Review*, *30*(1), 61-83.

*Janjuha-Jivraj, S. (2004). The impact of the mother during family business succession: Examples from the Asian business community. *Journal of Ethnic and Migration Studies*, 30(4), 781–797.

Jayantilal, S., Jorge, S. F., & Palacios, T. M. B. (2016). Effects of sibling competition on family firm succession: A game theory approach. *Journal of Family Business Strategy*, 7(4), 260–268.

Jehn, K. A. (1997). A qualitative analysis of conflict types and dimensions in organizational groups. *Administrative Science Quarterly*, 42 (3), 530-557.

Jehn, K. A. (2014). Types of conflict: The history and future of conflict definitions and typologies. In O. B. Ayoko, N. M. Ashkanasy, & K. A. Jehn (Eds.), *Handbook of conflict management research* (pp. 3–18). Northampton, MA: Edward Elgar

Johnson, S. M., Hunsley, J., Greenberg, L., & Schindler, D. (1999). Emotionally focused couples therapy: Status and challenges. *Clinical Psychology: Science and Practice*, *6*(1), 67-79.

*Karra, N., Tracey, P., & Phillips, N. (2006). Altruism and agency in the family firm: Exploring the role of family, kinship, and ethnicity. *Entrepreneurship Theory and Practice*, 30(6), 861-877.

Kaye, K. (1991). Penetrating the cycle of sustained conflict. *Family Business Review*, 4(1), 21-44.

Kaye, K., & McCarthy, C. (1996). Healthy disagreements. *Family Business*, *Autumn*, 71-72

Kellermanns, F. W., & Eddleston, K. A. (2004). Feuding families: When conflict does a family firm good. *Entrepreneurship Theory and Practice*, 28(3), 209–229.

*Kellermanns, F. W., & Eddleston, K. A. (2006). Feuding families: the management of conflict in family firms In P. Poutziouris, K. Smyrnios, & S. Klein (Eds.), *Handbook of research on family business. (pp.358-368).* Cheltenham: E.Elgar.

Kellermanns, F. W., & Eddleston, K. A. (2007). A family perspective on when conflict benefits family firm performance. *Journal of Business Research*, 60(10), 1048–1057.

*Kidwell, R. E., Eddleston, K. A., Cater, J. J., & Kellermanns, F. W. (2013). How one bad family member can undermine a family firm: Preventing the Fredo effect. *Business Horizons*, 56(1): 5–12.

*Knapp, J. R., Smith, B. R., Kreiner, G. E., Sundaramurthy, C., & Barton, S. L. (2013). Managing boundaries through identity work: The role of individual and organizational identity tactics. *Family Business Review*, 26(4), 333–355.

*Lambrecht, J., & Lievens, J. (2008). Pruning the family tree: An unexplored path to family business continuity and family harmony. *Family Business Review*, 21(4), 295–313.

*Lee, J., & Danes, S. M. (2012). Uniqueness of family therapists as family business systems consultants: A cross-disciplinary investigation. *Journal of Marital and Family Therapy*, *38*, 92-104.

Lee, J. (2006). Impact of family relationships on attitudes of the second generation in family business. *Family Business Review*, 19(3), 175–191.

*Lee, Y. G., Fitzgerald, M. A., & Bartkus, K. R. (2017). Adjustment strategy use in minority family businesses: Differences across gender. *Journal of Family and Economic Issues*, 38(1), 1–17.

*Levinson, H. (1971). Conflicts that plague the family business. *Harvard Business Review*, 49(2), 90-98.

*Lewis, K. V., Ho, M., Harris, C., & Morrison, R. (2016). Becoming an entrepreneur: Opportunities and identity transitions. *International Journal of Gender and Entrepreneurship*, 8(2), 98–116.

Lubatkin, M., & Schulze, W. S. (2005). The effects of parental altruism on the governance of family managed firms. *Journal of Organizational Behavior*, 26(3), 313–330.

Malinen, P. (2001). Like father like son? Small family business succession problems in Finland. *Enterprise and Innovation Management Studies*, *2*(3), 195-204.

*Marchisio, G., Mazzola, P., Sciascia, S., Miles, M., & Astrachan, J. (2010). Corporate venturing in family business: The effects on the family and its members. *Entrepreneurship and Regional Development*, 22(3–4), 349–377.

Martin, G., Gómez–Mejía, L. R., Berrone, P., & Makri, M. (2017). Conflict between controlling family owners and minority shareholders: much ado about nothing? *Entrepreneurship Theory and Practice*, *41*(6), 999-1027.

Martínez-Ferrero, J., Rodríguez-Ariza, L., & Bermejo-Sánchez, M. (2016). Is family ownership of a firm associated with the control of managerial discretion and corporate decisions? *Journal of Family Business Management*, *6*(1), 23-45.

*McKee, D., Madden, T. M., Kellermanns, F. W., & Eddleston, K. A. (2014). Conflicts in family firms: The good and the bad. In Melin, L., Nordqvist, M., & Sharma, P. (Eds.). *The Sage handbook of family business* (*pp.514–528*). Sage.

Meier, O., & Schier, G. (2016). The early succession stage of a family firm: Exploring the role of agency rationales and stewardship attitudes. *Family Business Review*, 29(3), 256–277.

Michael-Tsabari, N., & Weiss, D. (2015). Communication traps: Applying game theory to succession in family firms. *Family Business Review*, 28(1), 26–40.

*Miller, N. J., Fitzgerald, M. A., Winter, M., & Paul, J. (1999). Exploring the overlap of family and business demands: Household and family business managers' adjustment strategies. *Family Business Review*, *12*(3), 253-268.

Murnighan, J. K., & Conlon, D. E. (1991). The dynamics of intense work groups: A study of British string quartets. *Administrative Science Quarterly*, 165-186.

Neubaum, D. O., Kammerlander, N., & Brigham, K. H. (2019). Capturing family firm heterogeneity: How taxonomies and typologies can help the field move forward.

Norrick, N. R., & Spitz, A. (2008). Humor as a resource for mitigating conflict in interaction. *Journal of Pragmatics*, *40*(10), 1661-1686.

Olson, D. H., Russell, C. S., & Sprenkle, D. H. (1983). Circumplex model of marital and family systems: Vl. Theoretical update. *Family Process*, 22(1), 69-83.

*Olson, P. D., Zuiker, V. S., Danes, S. M., Stafford, K., Heck, R. K. Z., & Duncan, K. A. (2003). The impact of the family and the business on family business sustainability. *Journal of Business Venturing*, 18(5), 639–666.

Perlow, L. A., & Repenning, N. P. (2009). The dynamics of silencing conflict. *Research in Organizational Behavior*, *29*, 195-223.

*Pieper, T. M., Astrachan, J. H., & Manners, G. E. (2013). Conflict in family business: Common metaphors and suggestions for intervention. *Family Relations*, 62(3), 490–500.

*Pieper, T. M., Smith, A. D., Kudlats, J., & Astrachan, J. H. (2015). The persistence of multifamily firms: Founder imprinting, simple rules, and monitoring processes. *Entrepreneurship Theory and Practice*, 39(6), 1313–1337.

Pondy, L. R. (1967). Organizational conflict: Concepts and models. *Administrative Science Quarterly*, 12(2), 296-320.

Putnam, L. L., Fairhurst, G. T., & Banghart, S. (2016). Contradictions, dialectics, and paradoxes in organizations: A constitutive approach. *The Academy of Management Annals*, 10(1): 65-171.

Rahim, M. A. (2002). Toward a theory of managing organizational conflict. *International Journal of Conflict Management*, 13(3), 206-235.

Rahim, M. A. (2010). *Managing conflict in organizations*. Routledge.

*Rhodes, K. and Lansky, D. (2013). *Managing conflict in the family business: understanding challenges at the intersection of family and business*. New York: Palgrave Macmillan.

Rizzotti, D., Frisenna, C., & Mazzone, R. (2017). The impact of family owners' monitoring on CEO turnover decisions and the role of trust. *Journal of Management & Governance*, *21*, 599-621.

Schad, J., & Bansal, P. (2018). Seeing the forest and the trees: How a systems perspective informs paradox research. *Journal of Management Studies*, *55*(8), 1490-1506.

Schad, J., Lewis, M. W., Raisch, S., & Smith, W. K. (2016). Paradox research in management science: Looking back to move forward. *The Academy of Management Annals*, *10*(1), 5-64.

Spaho, K. (2013). Organizational communication and conflict management. *Management Journal of Contemporary Management Issues*, *18*(1), 103-118.

Stanley, L., Kellermanns, F. W., & Zellweger, T. M. (2017). Latent profile analysis: Understanding family firm profiles. *Family Business Review*, *30*(1), 84-102.

Short, J. (2009). The art of writing a review article. *Journal of Management*, 35(6), 1312-1317

Smith, W. K., & Lewis, M. W. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of Management Review*, 36(2), 381-403.

*Sorenson, R.L. (1999). Conflict management strategies used in successful family businesses. *Family Business Review*, 12(4), 325-339.

Sprung, J. M., & Jex, S. M. (2017). All in the family: Work-family enrichment and crossover among farm couples. *Journal of Occupational Health Psychology*, *22*(2), 218-224.

*Stewart, A., & Hitt, M. A. (2012). Why can't a family business be more like a nonfamily business? Modes of professionalization in family firms. *Family Business Review*, *25*(1), 58-86.

*Tait, A. A. (2017). Corporate Family Law. *Northwestern University Law Review.* 112(1), 1-60.

Thomas, K. W. (1992). Conflict and conflict management: Reflections and update. *Journal of Organizational Behavior*, 13(3), 265-274.

*Van der Heyden, L., Blondel, C., & Carlock, R. S. (2005). Fair process: Striving for justice in family business. *Family Business Review*, 18(1), 1–21.

Vera, C. F., & Dean, M. A. (2005). An examination of the challenges daughters face in family business succession. *Family Business Review*, 18(4), 321–345.

Vinton, K. L. (1989). Humor in the workplace: It is more than telling jokes. *Small Group Behavior*, *20*(2), 151-166.

Zattoni, A., Gnan, L., & Huse, M. (2015). Does family involvement influence firm performance? Exploring the mediating effects of board processes and tasks. *Journal of Management*, 41(4), 1214–1243.

Zellweger, T., & Kammerlander, N. (2015). Family, wealth, and governance: An agency account. *Entrepreneurship Theory and Practice*, 39(6), 1281–1303.

Chapter 3

Essay 2 - A Tension Lens for Understanding Public Innovation Diffusion Processes

Abstract

How do public servants diffuse public innovations in a bureaucratic and political environment that is fraught with tensions? Through a longitudinal case study, this research explores how tension management evolves with regard to two tensions observed in the diffusion process: control versus resistance and competing interests among stakeholders. Drawing upon three theoretical perspectives (contingency, paradox, and dialectic), the study shows that tension management strategies often evolve from simple to complex through a mechanism of joint learning. This study moves away from a traditional approach that considers tensions as barriers and argues that tensions can be engaged to move innovations forward.

Keywords: tension; tension management; public innovation; diffusion

Since the 2008 global financial crisis, and in response to an increasingly complex governance environment and growing fiscal pressures, governments around the world have been exploring innovative ways to deliver public service to meet citizens' needs and expectations (Daglio et al., 2015). For many public organisations, innovation has become an important way to gain trust, retain legitimacy, and survive in a fast-changing world (De Vries, Bekkers & Tummers, 2016; Hansen & Pihl-Thingvad, 2019). However, undertaking innovations is not straightforward; innovations often challenge existing interests, values, and structures (Fuglsang & Rønning 2015; Talbot 2011) and stakeholders now expect public innovations to be more participative and collaborative (Ewens & van der Voet 2019; Torfing 2019). It is important to understand how public servants manage tensions in the innovation process that often involves different stakeholders who have varying interests~~.~~

We consider tensions as 'competing demands that are contradictory yet interdependent' (Smith et al., 2017, p. 305). Tension is a characteristic of innovation because organizations often struggle between exploiting old certainties and exploring new opportunities. Tensions between the 'old' and the 'new' can manifest in different forms in the innovation process (Andriopoulos & Lewis, 2009; Dougherty, 1999). In this paper, we focus on tensions in the diffusion process because the confrontation of old and new practices and structures occurs as the innovation spreads. Tensions are also likely to emerge during the diffusion process given growing attention to participative or collaborative innovation in the public sector (Ewens & van der Voet, 2019; Torfing, 2019) where the interests of various collaborating groups may diverge. Diffusion, in earlier formulations, was viewed as a stage that followed the innovation process, but more recently, diffusion is conceptualized as part of the innovation itself given that various actors may be involved in the process of co-creation and adoption of the innovation (Vargo et al., 2020). In this conceptualization, innovation is not a linear process which always moves from creation to diffusion; rather it is a negotiated, iterative process in which an idea, product, or service is tested and modified by different stakeholders as it diffuses. Recent research shows that public organisations should be cautious about diffusing innovations that have not been properly tested (Park & Berry, 2014). As such, studying diffusion dynamics, and taking a tension lens, will expand knowledge about how to co-create public value with various stakeholders in public innovation.

The tension lens adopted in this paper differs from the traditional barrier lens in the sense that barriers are often viewed as something to be overcome or mitigated (Meijer, 2015; Raipa & Giedraityte, 2014; Wipulanusat et al., 2019), while the tension lens views tensions as an important element in driving the innovation. Recently, some public innovation scholars have argued that barriers are not necessarily negative but can be viewed as opportunities to design and modify the innovation; however, 'the literature lacks detailed insight into how the barriers can affect the outputs positively' (Cinar et al., 2021, p. 327). This research gap motivates this study to better understand the positive aspects of barriers in public innovation using a tension lens. We ask: How do public servants diffuse public innovations in a bureaucratic and political environment that is fraught with tensions?

We adopt a qualitative case study approach to explore how an innovation team in the federal government of Canada manages tensions over time when diffusing a government-run social media platform involving both government and non-government users. We selected this case because social media innovation is still in its infancy and much remains to be learned regarding how to adapt social media technology to existing organisational culture and institutional structure of public organisations (Criado et al., 2013; Mergel, 2012). This case is also illustrative of typical tensions among competing forces that public servants are likely to encounter during the innovation diffusion process.

By directing attention to the interplay among competing forces, this paper aims to provide a deeper understanding of the diffusion dynamics in which tensions change and reshape the innovation as it diffuses. Drawing upon three theoretical perspectives (contingency, paradox, and dialectic), this study investigates how tensions and tension management change over time to better understand the evolving nature of the diffusion process.

The remainder of this paper is organized as follows: Section 2 reviews barriers associated with diffusion of social media innovation, discusses key tensions associated with public innovation and importance of taking a tension lens. This is followed by a review of three theoretical perspectives on tension management. Section 3 presents the case and explains how we collected and analysed data, and Section 4 reports our findings. Section 5 discusses how our findings contribute to extant research and practice and explains why tension management strategies observed in the case evolved in certain ways. Section 6 concludes the study and identifies the limitations, implications for practice and areas for future research.

Conceptual Overview

Viewing Barriers to Innovation through a Tension Lens

The adoption of social media applications in public service is the latest trend in the practice of e-government (Criado et al., 2013). Compared with previous e-government initiatives, which mainly focused on disseminating information, social media technology allows for true interaction, instant response and feedback and thus challenges the government's slow moving responsiveness paradigm (Mergel, 2012). Social media innovations also challenge government operation and decision-making since social media technology empowers citizens to play a far more active role in co-creating and co-producing public services (Linders, 2012; Voorberg et al., 2015).

The often-mentioned barriers associated with the diffusion of social media innovation include a lack of clear protocols for working with social media (Meijer & Torenvlied, 2016), digital inequalities in society (Dekker et al., 2020), concerns about privacy and security, and citizens' expectation of radical transparency (Mergel, 2012). These barriers tend to be categorized based on their source of obstruction (e.g., organisational, technical, legal, and cultural barriers) with a focus on the difficulties. However, barriers might also function as enablers to allow innovators to adapt and integrate innovations to adopters' organisational context (Cinar et al., 2021), yet this aspect is not strongly highlighted in the literature. For this reason, we believe it is important to direct attention to the positive effects of barriers. The tension lens places the focus on the interactive relationship between innovators and other players who are involved in the innovation process (e.g., adopters, senior management, partners etc.). This relational view is important for grasping innovation dynamics because diffusion entails communication, interactive dialogue and continuous feedback through which innovators continue to evaluate, develop, and improve their innovations (Fitzgerald et al., 2002). This allows innovators to increase the rate and scope of diffusion (Fitzgerald et al., 2002).

In this paper, we focus on two sets of tensions in the diffusion process of public innovation. The first tension is between control and resistance. Control refers to 'all the devices or systems managers use to ensure that the behaviour and decisions of their employees are consistent with the organisation's objectives and strategies' (Lövstål & Jontoft 2017, p. 45) and resistance has been conceptualized as confrontation directed from subordinates to superiors (Tucker, 1993) or employees' opposition to managerial control (Hollander & Einwohner, 2004). In social media innovation, this tension often manifests as a struggle between the highly hierarchical communications mandated inside the government and social media innovators' demand for fast and interactive communications (Meijer & Torenvlied 2016). Because public organisations often have high levels of formalization (Perry & Rainey, 1988) and are held to high levels of public scrutiny (Flemig et al., 2016), the control-resistance tension is quite prevalent in public innovation. It is therefore worth examining how innovators manage this tension during the diffusion process.

The second tension is associated with competing interests. Interests refer to what is good or advantageous for an individual or a group as interpreted by them (Douglass, 1980) and tend to be reflected in the goals that people pursue (Bryson, 2004). Divergent interests have been found to occur in public innovations (Kattel et al., 2020) and tend to be prominent given that public organisations have a responsibility to a wide range of constituents. To legitimize public innovation and create public value, collective decision-making is often needed, which surfaces competing interests (Jaspers & Steen 2019; Wagenaar & Wood, 2018). In addition, public innovation represents a new value proposition that challenges the existing order of things and therefore fundamentally provokes the competing interests (Meijer & De Jong 2020).

Understanding Tension Management through Patterns and not Checklists

A barrier lens often results in a strategy checklist that does not communicate the dynamic, complex and evolving nature of successful diffusion. With the changing social media innovation context that features fast social interactions and information exchange, it is necessary to move beyond a checklist approach that tends to impose micro solutions. This paper advocates a design approach that supports the effort to generate new strategies based on knowledge about tension management patterns observed. Inspired by the paradox research in organisation studies, we build upon the framework provided by Putnam et al. (2016) to integrate material from various conceptual models and to guide our analysis of tension management. The augmented framework reflects three theoretical lenses: contingency (either-or), paradox (both-and) and dialectic (more-than). These three lenses, taken from organisation theories allow us to organize the literature on public innovation and/or tension management as we outline below.

The Contingency Perspective

The contingency perspective views tensions as contradictory elements and stresses the importance of selecting strategies according to contingencies. At the heart of the contingency perspective is a simple proposition: the effectiveness of strategies depends on the immediate contingent circumstances. As Thomas (1992, p. 271) points out, contingency theories tend to "provide answers to the short-term question of how best to cope with current condition". As such, long-term oriented collaboration is often viewed as impractical from a contingency perspective. Contingent strategies are very pragmatic and often involve making an either-or choice in reaction to a given contingency. In the public innovation literature, several tactics associated with tension or conflict management involve making an either-or choice. For example, avoidance or denial represents a choice to stay away from the tension rather than stay in it (Meijer & De Jong, 2020). A trade-off, which involves safeguarding one choice at the expense of another (e.g., Bryson et al., 2017) can also be considered an either-or strategy because there is a winner and a loser.

The Paradox Perspective

The paradox perspective acknowledges the persistence and interdependency of contradictory forces and argues that such paradoxical tensions should be managed concurrently by attending to competing demands simultaneously (Smith & Lewis 2011). Paradox theory presumes that "long-term sustainability requires continuous efforts to meet multiple, divergent demands" (Smith & Lewis 2011, p. 381). In addition, the paradox perspective is considered valuable for solving problems in a complex and dynamic environment because in such a context, tension management often requires both-and thinking and a collaborative and flexible approach (Smith & Lewis, 2011). In the public innovation literature, strategies that seek to create a win-

win outcome for all parties involved reflect both-and thinking. For example, consulting with affected parties and involving affected parties in the governance of the innovation can be considered as both-and strategies (Borins, 2014).

The Dialectic Perspective

The dialectic perspective focuses on the creation of a higher order synthesis through the ongoing dynamic interplay between opposites over the long-term. This perspective assumes that actors resist the tension in an asymmetric power relation. This view is different from the paradox perspective which assumes that actors embrace the tension in a symmetric power relation (Hargrave & Van De Ven 2017). As such, 'dialectical perspectives view the dynamic relationship of these elements (opposites) not as persistent coexistence in tension but rather as involving transformation through conflict' (Hargrave & Van De Ven 2017, p.321). Dialectic strategies often feature 'more-than' thinking which transcends opposites through engaging in politics, reframing the tensions or introducing new perspectives. In the context of public innovation, examples of more-than strategies include building political support (Cinar et al., 2019), engaging a third-party such as a higher administrative or legislative authority (Bryson et al., 2017), and reframing of problems or goals (Hartley et al., 2013).

We present a framework showing comparison of the three perspectives in Table 3-1. Each of the three perspectives has its own view of tension characteristics and assumptions about contextual factors. This framework is useful for understanding tension management in diffusion. First, the framework considers both short-term and long-term strategies and is suitable for analysing the diffusion dynamics over time. Second, the integrated framework has the advantage of capturing a wide range of tension management strategies based on three sets of theoretical assumptions. Research has shown that the choice of tension management strategies will be influenced by people's understanding of tension characteristics and context (Smith, 2014; Smith & Lewis 2011). Therefore, it is possible for different strategies to be observed in the same tension management process. Third, the framework is useful for understanding how tensions can be leveraged to facilitate the innovation diffusion process and how to adapt tension management strategies to a changing context. This is because the paradoxical and dialectic perspectives have a longer time frame as compared to the contingency perspective and both recognize the constructive potential of tensions.

Table 3-1

A Comparison of Theoretical Perspectives on Tension Management

Theoretical lens	Contingency perspective	Paradox perspective	Dialectical Perspective
Theoretical focus	Pragmatic	Visionary, prescriptive	Descriptive, focus on how tensions transform over time
Characteristics of tensions	Contradictory	Persistent, contradictory but interdependent	Persistent, contradictory but interdependent
Goal	Coping	Paradoxical resolution; To foster learning and creativity	Production of transformation through politics and conflicts
Assumptions	Contextual variables are given	Contextual variables are changeable	Actors resist the tension and seek to dominate and overcome opponents; Unstable, asymmetrical distribution of power
Tension management approach	Either-or -Defensive reactions (e.g., denial or withdraw) -Selection or privileging one pole (e.g., focus on competition over cooperation) -Separation or segmentation (e.g., through temporal splitting or structural differentiation)	Both-and -Paradoxical thinking (increases cognitive abilities to recognize opposites) -Vacillation or spiraling inversion (shifting back and forth between two poles) -Integration and balance (e.g., compromise)	More-than -Reframing and transcendence (situate the pairs in a novel relationship) -Connecting, third space and dialogue (engage opposites in an ongoing dynamic play or create a third space for dialogue) -Reflective practice and serious playfulness (e.g., use humor to surface tension and develop reflective practice)

Theoretical lens	Contingency perspective	Paradox perspective	Dialectical Perspective
Outcome	Conflict is resolved	Ongoing reproduction of dynamic tension between opposites through differentiation and synergy	Conflict between contradictory elements unintendedly produces transformation, which later becomes a new element in tension as the dialectical process recycles

Note: Adapted from Hargrave & Van De Ven (2017), Putnam et al., (2016), Smith & Lewis (2011), Thomas (1992)

Methodology

This research uses a qualitative case study approach to explore diffusion of innovation and tension management in a government setting. A case study is used because it allows for a rich understanding (Creswell & Poth, 2018) of tensions and contextual conditions that influence the choice of tension management strategies. In this study, we focus on tensions and tension management at the team level. We consider tensions that emerged at the interface of the innovation team on one hand and the public organisation and innovation users/adopters on the other hand.

The Case

The case is a social media innovation project carried out in the federal government of Canada. All names have been disguised in this paper to maintain anonymity. The innovation involves building the government's first public-facing professional collaboration platform, ConNEXT. The ConNEXT team was established to explore new ways to engage citizens and stakeholders in the government decision-making process. The objective is to increase the depth and breadth of knowledge sharing among government and non-government users and enable innovations to thrive in both the public and private sector. The idea of ConNEXT originated from employees, and later got approved as a pilot innovation project by the innovation committee, which considers ConNEXT as a major step toward a more innovative, open, and collaborative way of identifying, exploring, and co-creating policy agendas with stakeholders.

For example, ConNEXT provides a platform for federal public servants to meet their provincial and municipal counterparts as well as other stakeholders online to discuss hot policy topics such as the new policy ideas in response to pandemics and how the government and its partners can use artificial intelligence for public good. In this sense, ConNEXT is not only an innovation itself but also becomes government's open innovation platform that supports and facilitates collaborative innovation.

Being the first federal government project using a cloud server that is outside of the government firewalls, ConNEXT is managed by the digital tools team within the (given) Department (hereafter 'the department') under the leadership of the Chief Information Officer. The team also manages the government internal collaboration platform ConnexU. Currently, ConNEXT is open to public servants, students/scholars in post-secondary institutions, and Canadians by invitation. ConNEXT users have been growing rapidly and the platform had over 94,000 registered users as of October 2020.

Data Collection

We used two sources of data in this study: two rounds of interviews conducted in 2017 and 2019 and online data obtained from the ConNEXT platform. The first round of interviews took place about one year after the ConNEXT platform launched and the second round occurred after a major reinvention of the platform. Interviewees were identified through discussions with the project lead and through snowball sampling (Miles et al., 2018). In total, we conducted 28 semi-structured interviews (see Table 3-2). These interviewees include ConNEXT team members, senior managers, public servants working to support ConNEXT, and users in governments, universities, industries, and non-government organisations (NGOs). Interviewees were asked to describe the most salient tensions associated with the ConNEXT platform that they had experienced and how the tensions were managed. Interviews ranged from 45 to 90 minutes and were digitally recorded and transcribed for analysis.

Table 3-2

Data Sources -Interviews

Interviews	**Number**
Digital tools director	1
ConNEXT team members	7
Digital tools ambassadors	9
Public servant users	7
Other users	4
Total	**28**

The online data also provide a valuable source of information for understanding the tension contexts. The collected online data includes documents or presentations related to ConNEXT's development, users' feedback, and suggestions for ConNEXT, and online discussions related to the innovation-associated tensions. These online data cover a range of topics such as discussions about why ConNEXT is needed, what the platform should look like, and main issues and suggestions from the users. Overall, we collected 40 pages of online data and seven presentations or reports related to the ConNEXT project.

We overcame the 'messy' nature of social media data (Innes et al., 2017) by (1) purposefully selecting online groups where we expected to see tensions (e.g. two online groups are designed to allow users to voice their concerns associated with using ConNEXT); (2) using a variety of tension related terms such as conflict, challenge, barrier to search posts; (3) following hot discussion topics and ConNEXT team members' online posts as a way to identify tensions; (4) using interviews to ask participants about specific tension incidents.

Data Analysis

We used qualitative software (QDA Miner Lite) to facilitate the coding process. The data were analysed using deductive and inductive approaches described in Miles et al. (2018). We created a start list of codes based on the interview protocol and the categories we derived from the public innovation literature (e.g., types of tensions) and tension management literature (e.g., tension management strategies). While coding the data, other themes emerged (e.g., the time frame encompassed by a tension management strategy) that allowed us to augment the original code list. We operationalized the control-resistance tension as rules and regulations that impede the innovation, and the competing interests' tension as disagreements and divergences among stakeholders in regard to the goals they expected ConNEXT to achieve.

As we advanced with the analysis, we grouped first-order concepts into more abstract second order themes, which we further grouped into overarching dimensions (Gioia et al., 2013). We present the data structure in Table 3-3.

Table 3-3

Data Structure

1st Order Concepts	2nd Order Themes	Overarching Dimensions
Rules impede innovation	Control vs. resistance	Tension associated with innovation
A tool for government employees	Competing interests	
A tool for all of us working together to solve problems		
A tool for students, business, and non-for-government organisations		
We created a ConNEXT Twitter account and started using it	Ignoring	Either-or approach
We stopped using Twitter because it is not worth the effort to go through that lengthy approval process	Avoiding	
We did not talk about the competing interests directly because we knew it would never go away		

1st Order Concepts	2nd Order Themes	Overarching Dimensions
Can we just use this Twitter account to retweet and respond to users' requests?	Compromising	Both-and approach
We adjust our priorities every two weeks through our agile development process	Vacillating	
We used personal Twitter accounts and the ConNEXT to promote the platform	Finding a third space	More-than approach
We tried to reimagine what the tools should look like to foster a new way of collaboration in a digital age.	Reframing	
Two governance bodies were established to provide guidance and make higher order decisions on the project	Using governance tools	More-than approach
We adjust our priorities every two weeks through our agile development process	Short-term strategy	Time frame encompassed
We have a new long-term vision for ConNEXT	Long-term strategy	

To better understand how tensions and tension management strategies change during the innovation diffusion process, we treated each tension and its corresponding tension management strategy (ies) as a tension-tension management cycle and structured these identified cycles in chronological order. By employing a thick description mode of analysis (Geertz, 1973), we were able to capture how tensions emerged, progressed, were managed and whether they were resolved or required further action.

To increase the credibility of our findings, we triangulated the interview data with online data by comparing tension management strategies between interviews and online data for the same type of tension. The triangulation process not only highlighted the prevalence of control-resistance and competing interests tensions in ConNEXT, but also revealed contextual details of why these tensions often exist in public innovation diffusion and why multiple tension management strategies are needed. We will elaborate on these in the Results section.

Results

We present two tension-tension management cycles associated with the diffusion of ConNEXT platform to both government and non-government users. In each cycle, we describe how the tension was manifested, how the team managed the tension over time, and the outcomes that resulted.

Managing the Control vs. Resistance Tension

Control and resistance are essentially two sides of the same coin, representing organisation members' effort to secure some level of control over others' behaviour (Bouchikhi 1998). In the diffusion phase of ConNEXT, forces of control manifested as the department's 'old' communication policy and lengthy approval process, which prevent the team from promoting the platform and answering users' questions in a fast and effective way. Resistance manifested as forces that disrupt the status quo including demands from the team for flexible rules, fast and agile processes, and the autonomy to try 'new' ways of working. A team member described the challenges associated with this tension as '*giving birth to a new being*.' We present this control-resistance cycle in Table 3-4. The numbers in the columns portray an approximate chronological order of events.

Table 3-4

The Control-Resistance Cycle

1. Tension Context		2. Tension Management Strategy	3. Outcomes	4. Tension Management Strategy
Control: The regular approval process for sending out a tweet from the official account is lengthy **Resistance:** The team wanted to use a project Twitter account to promote ConNEXT and provide customer service in real-time	**Data Example** *"For me to send out a tweet, I need to write the tweet and then go through four levels of approval on our end and four levels of approval on another team that actually manages the official Twitter account. The pain of fulfilling the proper process would be significantly more than the benefit of sending the tweets out." (team member)*	**Either-Or** (Ignore the rules and processes) **Data Example** *"We just created an (unofficial) Twitter account."* *(project leader)*	The unofficial ConNEXT Twitter account started tweeting. The department required the team to use the departmental official Twitter account to communicate with users. The control-resistance tension became salient **Data example** "*We got in trouble for the ConNEXT Twitter account." (team member)*	**Either-Or** (Avoid using Twitter) **Data Example** "*We just do not tweet anymore. It is just not really worth the efforts to go through this process*." *(team member)* (continues on the next row)
5. Outcomes	**6. New Tension Context**	**7. Tension Management Strategy**		**8. Outcomes**
The team stopped using the unofficial Twitter account. The team heavily promoted the ConNEXT on the government internal collaboration platform ConnexU	ConNEXT users continued to grow. However, a majority of ConNEXT users came from the government. The number of external users remained limited. The innovation goal of increasing external users was not achieved.	**More-Than** (Use a third space, i.e., team members' personal Twitter accounts) **Data Example** "*We can't have a Twitter account because we can't be trusted with 140 characters, but the whole external collaboration platform (ConNEXT) is unlimited with characters." (project leader)*	**Both-And** (Negotiate a compromise solution) **Data Example** The team proposed to the department that they will only use the ConNEXT Twitter account to retweet or to respond to users' requests.	The team started to use the ConNEXT Twitter account again in June 2018. The tension was resolved.

In the diffusion phase, the team's desire to interact with users in real-time through a project Twitter account came face-to-face with the departmental lengthy approval process for sending out a tweet. Previously, the departmental Twitter account was mainly used to broadcast information and was rarely used to answer questions and inquiries from citizens. The new interactive communication requirements imposed by the ConNEXT project rendered the control-resistance tension explicit. In responding to this tension, the team changed its strategy from a relatively easy either-or approach to a more-than approach, finally settling the tension through a both-and approach as we outline below.

In the beginning, the team decided to bypass the lengthy approval process imposed by the department. The team decided to ignore procedural requirements and to tweet directly through an unofficial ConNEXT Twitter account to users. This ignoring strategy reflects an either-or approach: either follow the rules or not. However, this strategy only worked temporarily as after about six months, the team was chastised for not respecting the government's social media communication policy and the department demanded the team to use the departmental official Twitter account to communicate with users. As the project lead said,

> *The department told us to get rid of the ConNEXT Twitter account because it was not approved. However, if we put all our info under the department's Twitter account, the users will not find us. [The department] does not mean anything for someone on the campus.*

As a result, the team again chose an either-or approach by avoiding the use of Twitter altogether for promoting ConNEXT to non-government users. The team started to promote the platform heavily internally towards public servants through the internal platform ConnexU. While ConNEXT experienced rapid growth of internal users, this avoiding strategy resulted in very slow growth in the number of external users, which proved to be a problem since ConNEXT was created to increase collaboration with external users. Hence, team members started to use their personal Twitter accounts and ConNEXT itself to spread the word externally. These alternative communication channels could be considered as a third space that helped to address the control-resistance tension between the department and the team, and therefore, constitute a more-than approach.

The use of ConNEXT for its own promotion surfaced an interesting dynamic: while the team needed approval for sending out tweets to reach external users, the whole ConNEXT platform had been approved to provide access to external users. This helped the team negotiate a mutually acceptable compromise with the department: only use the ConNEXT Twitter account to retweet official tweets and to respond to users' requests, and no new official communication messages would be sent from this Twitter account. Fourteen months after abandoning the ConNEXT Twitter account, the team resumed use of this account in June 2018. This situation was achieved through a both-and approach, which addresses the concerns of both sides of the tension.

As the above indicates, to address the control-resistance tension, the team adjusted its tension management strategy four times, from ignoring to avoiding, to finding a third space, and finally to compromising. The evolution of the tension management strategies reflects a tendency to move from a relatively easy strategy (i.e., ignoring) to a complex strategy (i.e., compromising), which requires more investment in time and energy. This evolution demonstrates that surfacing the tension, either intentionally or unintentionally, is a first step to bring the issue to the level of consciousness and sets the ground for resolving the tension in subsequent steps. The team's original ignoring strategy seemed to be unsuccessful as it made the control-resistance tension more salient. However, from an innovation perspective, this strategy yielded several benefits. First, it demonstrated the innovation team's resistance to existing rules and a call for changing the government communication practices. The highly hierarchical communication practices prevented the team from promoting the platform to non-government users, collecting users' feedback, and making timely adjustments. Since ConNEXT has been approved as a pilot project, it is important for the team to flag problems encountered during the innovation process for the department to address. It is this mentality of 'let us break the rules and wait to be told not to' that drove the team to continue to test new ways of doing things during the diffusion process. Second, this ignoring strategy also helped the team test the boundary of old rules. As commented by one member, '*we are trying to figure out how much we can move to this new system and how much we stay in this old system to give us space to move into the new system*.' Social media innovations often call for new rules for communicating with the public. To create new rules, it is important to know the extent to which the department is willing, able, and prepared for two-way interactions with the public through social media. Although ConNEXT has received support from senior management, the working level employees have to understand the associated risks and know what content can and cannot be communicated through social media. In short, by surfacing the control-resistance tension through an either-or strategy, the team revealed a problem with existing social media communication policy that would have inhibited the innovation diffusion from moving forward. By resisting the formal communication channels and testing an unofficial project Twitter account, the team actively engaged in learning how to leverage social media to promote ConNEXT and expand the community of users. These experiences became valuable knowledge for addressing the issue jointly with the department later in the diffusion process.

After being told to close the unofficial project Twitter account, the ConNEXT team switched to an avoiding strategy and temporarily gave up using Twitter as a marketing and customer service tool. This decision changed the diffusion process by placing the focus on government users first. The team leveraged the growth of internal users to demonstrate a collective need for changing the communication rules surrounding social media. Realizing that more and more public servants were using ConNEXT to communicate with the public directly, the department changed its approach. Therefore, a compromising strategy worked out at last because both the team and the department learned that they needed to work with each other to bring more non-government users to ConNEXT because the value of this public-facing platform lies in the content generated through user interactions and engaging external users to create meaningful interactions is of critical importance to the success of ConNEXT. This awareness facilitated the process of reaching an agreement. Thus, although the control-resistance tension changed the trajectory of innovation diffusion away from non-government users at the beginning, the process of managing this tension helped to change the department's approach, produce consensus, and finally brought non-government users back to the diffusion process.

Managing the Competing Interests Tension

About one year after the initial launch, the platform entered a reinvention phase, which was mainly driven by government users who expressed a strong preference for integrating ConNEXT and ConnexU (the government internal collaboration platform) into a single platform to reduce administrative burden for users. The platform reinvention indicated that innovation diffusion is not a linear process but rather an iterative one because adopters can change and reshape the development of innovation as it diffuses.

Diverse interests started surfacing during this phase as the team gradually shifted the focus from government users to non-government users. We present the competing interests tension cycle in Table 3-5.

Table 3-5

The Competing Interests Cycle

1. **Tension Context**		**2. Tension Management Strategy**		**3.Outcomes**
New **senior management team** wanted to make ConNEXT a standard collaboration tool across the government	**Data Example** *Our new Director General's view is that we cannot keep saying this is a pilot, we need to make this government-wide, we need to standardize across government. Our view is that the tools are not where they need to be, as soon as I talk to external stakeholders, ConNEXT definitely needs to change… (team member).*	**Either-Or** **(**Avoid talking about the tension)	**Data Example** *"People avoid talking about the tension directly because they know it will not go away. Management tried to focus on positive things. They tried to boost team morale and collaboration as much as possible, even though below the surface there is still so much stress in everyone's work." (team member)*	The tension stayed latent.
The team wanted to continue to experiment with some new functions for external users		**Both-And** **(**Vacillate between competing interests to address short-term priorities)	**Data Example** *"We work in an agile environment, we run a two-week sprint, we pick which issue we are going to focus on for that period. (team member)*	The vacillation strategy created new issues at the team-user interface because of the unclear messages.
Partners tried to influence the design of specific functions through their contribution of resources	*Partners diverged in their views regarding what one should get in return for contributing funds.*			

4. Tension Management Strategy		**5.Outcomes**
More-Than (Reframe the vision of ConNEXT.)	**Data Example** *"Our real goal is digital collaboration. The tools are means to an end but not an end itself. If there are better ways to foster collaboration that is what we are trying to do…. Our new vision is to build an open, accessible digital workspace." (team member)*	The new vision helped to direct the tension to a positive side by focusing on shared goals. The new vision required more collaborations with more partners. The new governance structure provides strategic direction and operational oversight to ensure the competing interests are managed effectively.
More-Than (Use governance tools)	**Data Example** *"There are two governance bodies to make higher order decisions on the Digital Workspace, and ensure individual service teams are aligned with the overall vision" (ConNEXT wiki)*	

Faced with limited financial and human resources, users' high expectations and diverse interests, the team increasingly sensed the competing interests tension during the reinvention phase. As one member commented, '*I did not expect the mandate for the project to have so many interpretations*,' reflecting the tensions that arise during this period. The department's newly appointed senior management team wanted to transform ConNEXT into a standard collaboration platform across the government. However, the team wanted to keep experimenting with new functions for non-government users. For example, some business users wanted to see more procurement functions. Academic users proposed that the team should '*explore the possibility of syncing academic-focused social media platforms like Academia.edu and Research Gate to ConNEXT profiles*' to make it easier for academic users to identify and access relevant research. Some partners wanted to contribute money in exchange for some functions designed specifically for them such as using ConNEXT to do public consultation.

In response to the competing interests, the team started using some short-term strategies and gradually shifted toward a long-term focus. Early on, there was a tendency among team members to avoid discussing the competing interests directly. This avoiding strategy reflected an either-or thinking: either engage in conflicts or keep silent about the competing interests. A member stated that people did not want to talk about the tension openly as it was recognized that these competing interests would not go away, and open discussions might induce stress rather than alleviate the tension. We also observed silencing in the online data as one user, exemplifying the views of others, said that they '*always valued harmony in their interactions with everyone at work*.' This avoiding strategy did not reduce the tension – it only kept the tension latent. To address the latent tension, the team used an agile approach to project management to manage competing interests on a short-term basis. This approach is about using short development cycles called 'sprints' (for ConNEXT, the cycle was every two weeks) to focus on continuous improvement in the development of a product or service. As explained on the ConNEXT wiki, this method focused on '*delivering products and features based on a set of minimum requirements, then reviewing and improving the product through multiple iterations*.' The agile approach enabled the team to respond more rapidly to emerging issues and to vacillate between addressing the needs of internal government users and the needs of other key stakeholders. Through bi-weekly meetings among digital tools developers, ConNEXT team members, and relevant stakeholders, the team prioritized their work based on the stakeholders' feedback received on a previous iteration of specific functions. The vacillation strategy reflected a both-and thinking which emphasized addressing competing demands iteratively over a very short period. From an innovation perspective, this agile approach increased the flexibility in responding to changes and multiple interests and leveraged the opposing forces to drive the reinvention of the platform.

While a combination of avoiding and vacillating helped to preserve relationships and address the competing interests in the short-term, the strategy also caused unintended consequences. The shifting priorities that resulted from vacillation created challenges for communicating project progress with users. In response to users' demands for the next steps, the team often chose to communicate in vague language because the priorities could quickly shift. Some digital tools ambassadors complained about mixed messages received and a lack of clarity in communication. As one team member acknowledged, '*This is because I wouldn't want to tell them one thing and then it would change two weeks later, and it would change again two weeks later.*' Unclear messages generated rumours and worries among users and negatively affected the team's credibility. This unexpected consequence demonstrates that the resolution of earlier tensions is often accompanied by the eruption of new tensions, and tension management needs to be adaptive as the innovation diffusion unfolds.

As the reinvention began to take shape and to address the new issue of an unclear roadmap, the team reframed the vision of ConNEXT and rebranded the project as Digital Workspace. The new vision positioned ConNEXT as a central platform upon which an open, accessible digital workspace consisting of multiple loosely coupled autonomous collaboration applications would be built for the government and its stakeholders (e.g., ConNEXT wiki, real-time document editing). This vision not only repositioned ConnexU from a parallel platform to a micro service on the ConNEXT platform, but also greatly expanded ConNEXT's original mandate. We consider this reframing as a more-than strategy because this new vision transcended the interests of specific players. The digital tools team director explained the new vision in an online post:

> *The concept behind our open and accessible digital workspace … was about building an ecosystem and framework that would allow other people to shine. It is about allowing partners inside and outside government to participate in building, shaping, and using the workspace to make our world a better place.*

Both the interviews and online data confirmed that this long-term oriented reframing strategy helped to direct the tension towards "shared goals". As the new vision was big and bold the team made it very clear that they were looking for more open collaborations and partnerships (and probably inviting more competing interests as the innovation diffusion progresses). Given that ConNEXT aims to create public value for its users, it makes sense to maintain the competing interests tension because

> *If you cannot argue and arrive at the best solution, you are not doing the work to actually have a real, healthy working relationship. Tension is not a clue to avoid a situation, it is a clue to jump*

into it with both feet and release the energy that is bound within that tension (online data posted by one ConNEXT user).

In addition to a new vision, new long-term oriented governance tools were introduced to address competing interests. We consider these governance tools as a more-than strategy because they align with the dialectic theory in looking for a higher order synthesis of conflicting tension forces. According to the ConNEXT wiki, an advisory committee and a secretariat were established to make higher order decisions to ensure individual service teams (dedicated to build, maintain, and enhance each microservice) are aligned with the overall vision.

In sum, as the innovation diffusion progressed, we found that tension management often evolved from simple to complex, suggesting a learning process. In the case of both tensions, we saw that either-or strategies such as ignoring and avoiding were used at the beginning. These strategies were easy to implement, required little or no preparation, and provided temporary solutions. Comparatively, more-than approaches such as finding a third space or reframing a vision were used later in the process. These strategies required collaboration of the various parties and took time to develop. They also provided potentially more durable solutions.

Discussion

In this section, we discuss how our findings add to the extant research on public innovation and the implications for managing and diffusing public innovations.

A Tension Lens into Public Innovation

As mentioned earlier, public innovation research has tended to focus on the negative side of barriers; only recently has some attention been given to the positive effects of barriers (Cinar et al., 2019). The ConNEXT case study reveals the usefulness of a tension lens – that recognizes the importance of opposites – in examining public innovation process. First, compared with the traditional barrier lens, a tension lens emphasizes the dynamic interplay among tension elements.

While a barrier lens often produces a check-list type, one-of coping strategies, a tension lens embraces a more dynamic and complex perspective that focuses on engaging with the opposing forces to develop and adapt tension management strategies in response to the changing environment to drive the innovation forward. Considering that innovation diffusion processes are often characterized by interactive communications and social interactions, we believe a tension lens is more suitable for examining the diffusion dynamics.

Second, unlike the barrier lens that creates a divide between innovators and the rest of the organisation, a tension lens stresses the importance of interactive problem solving. In the ConNEXT Twitter account example, the interaction between the team and the department jointly determined the trajectory of innovation and the evolution of control-resistance tension.

Last but not least, the tension lens suggests an active approach to innovation management. From a tension lens, many tensions exist in organisations in a latent state (Hahn & Knight, 2021). By evoking these latent tensions, innovations provide an opportunity for organisations to change. The more engaged public servants are with innovation activities, the more likely they will become aware of the associated barriers and experience tensions (D'Este et al., 2012). Therefore, innovators would do well and not shy away from tensions but actively leverage the energy behind tensions to advance innovations. Innovators can strategically evoke the control-resistance tension through circumventing existing rules, which involves experimenting with new rules (Mergel, 2012) and helps assess organisational readiness for change. Innovators can also increase the competing interests tension by engaging with more stakeholders, which creates opportunities for stakeholders to find shared interests, helps to generate creative ideas (Sørensen & Torfing 2011), and brings public support to drive the diffusion and reinvention of innovation (Alves, 2013). It is through surfacing and managing the control-resistance and competing interests tensions that ConNEXT was able to co-create and/or co-define the added public value during the diffusion process. This democratic and deliberative process, in turn, underscores the purpose of public innovation (Benington, 2009).

Patterns of Tension Management in Innovation Diffusion

Building on the extant tension management and public innovation literature, this paper goes beyond identifying tension management strategies used by the innovation team by exploring temporal patterns of tension management strategies in the diffusion process of public innovation. Besides confirming some previous findings such as the use of multiple strategies in sequence or in parallel (Meijer & De Jong 2020), the study reveals that tension management strategies often evolve from simple to complex through a mechanism of joint learning. Complex strategies often require more time to execute and more collaboration and coordination. In other words, knowledge on how to manage tensions is co-constructed by various stakeholders involved in innovations. This kind of learning-by-interacting (the co-construction of knowledge between actors engaged in an innovation process, [see Turner et al., 2013]) has been recognized as an important learning mode in innovations (Andersen & Lundvall 1988).

The identified tension management patterns provide a basis for designing new strategies to manage new tensions that emerge in the innovation process. As mentioned earlier, the tension lens favours a design approach that counteracts a checklist approach. Design approaches have gained popularity among public managers in recent years due to the emphasis on user engagement to deliver human-centred solutions (Bryson et al., 2020). A key feature of the design approach is that rather than giving a prescriptive checklist, designers can focus on selecting and combining a number of appropriate patterns to generate novel solutions (Van Buuren et al., 2020). It is believed that a design approach is more suitable to address challenges in complex, fast paced and uncertain situations in which new information continues to emerge (Bryson et al., 2020).

It should also be noted that considering diffusion as a social process in which learning takes place through social interactions implies that the patterns identified for innovators need to be interpreted together with the tension management strategies adopted by the opposite parties. This is because tensions are interactive in nature and other parties' tension management behaviour will likely influence how tensions change and are managed. For example, the choice of marketing ConNEXT first among government users was influenced by the team's avoiding strategy in dealing with the control-resistance tension. The team chose an avoiding strategy because the department used its authority to force the team to abandon their unofficial Twitter account. By connecting tension-tension management cycles of both innovators and other players through temporal patterns, we can obtain a more complete understanding of the diffusion dynamics.

As such, two reasons might explain why tension management evolves from simple to complex forms. First, simple strategies are short-term focused and are easy to implement. These strategies were used at the beginning because innovators were eager to get things done quickly to move the project forward. Also, simple strategies were effective in activating tensions from a latent state and this is the first step for addressing tensions collaboratively. Therefore, it was not feasible to invest time to develop complex strategies when opposing parties were not aware of the tension yet. Second, complex strategies take more time for people to develop. In the case of both-and vacillation strategy there is a need to determine when to shift priorities and how to effectively communicate those shifts. For other both-and strategies such as collaboration or compromise, opposing parties need to recognize interdependencies so as to be willing to work together to find a solution. In the case of more-than strategies, finding other ways around and reframing a vision also require time to search for a third space or engage with opposites to better understand shared goals. Overall, simple and complex strategies each have benefits in different contexts. Understanding the benefits and limitations of each strategy will help public innovation managers make better decisions regarding tension management.

Conclusion

Diffusing public innovations involves an ongoing process of interacting, learning, and managing tensions inside and outside of public organisations over time. Various discussions about diffusing public innovations view barriers as challenges to overcome, as if to indicate that if there are no barriers, innovations will succeed. In recent years, more innovation scholars have recognized that barriers can be a valuable resource for innovation (Ford & Ford 2010).

Building upon this new insight, this research examines how an innovation team handled tensions associated with diffusing a government-run collaboration platform. The study demonstrates the advantages of using a tension lens in exploring the diffusion dynamics of a public innovation. By presenting tensions in bilateral or multilateral relations, the tension lens directs attention from overcoming barriers to engaging in tensions to move the innovation projects forward. This relational view helps advance understanding that barriers can play a generative role in innovation.

Moreover, by leveraging insights from contingency, paradox and dialectic theories, this study shows that tension management is a joint learning process, manifesting as a pattern that may progress from simple either-or choices to complex both-and and more-than strategies that require more time to develop. The interactive nature of tension is an important distinction from the traditional barrier lens, which focuses on prescribing strategies for innovators with little discussions about how these strategies are received or resisted by other stakeholders of the innovation.

Given the single case study, this paper has limitations with regard to the generalizability of research findings. However, the introduced tension lens and the multi-perspective based tension management strategies open new avenues for future research. First, future research may explore other evolution patterns of tension management in other phases of public innovation regarding different sets of tensions. For example, financial constraints have often been cited as an important barrier for public innovation, especially in the early phase of innovation (Meijer 2015). While constraints are often perceived as limiting factors, they can also enable creativity (e.g., financial constraints act as incentives for people to innovate, see [Ramaswamy, 2009]). The innovation process often involves iterating between possibilities and constraints and experimenting within boundaries (Andriopoulos & Lewis, 2010). Therefore, it is worth investigating how public organisations manage the tension between possibilities and constraints. Second, it would be interesting to examine how other tensions are interwoven with the control-resistance and competing interests tensions in the innovation processes. In this study, we focused on two tensions mainly at the team level. However, organisation studies show that tensions are often nested at individual, group, and organisation levels in innovations (Andriopoulos & Lewis, 2009) and multiple tensions can be knotted in ways that amplify or attenuate their effects on one another, resulting in quite different consequences to innovative actions (Sheep et al., 2017). As such, it would be helpful to examine the relationships across multiple tensions and the associated dynamics (Schad et al., 2016).

This study also offers practical insights on how to evoke tensions and turn them into possibilities to advance the innovation project. For example, circumventing existing rules can be used to provoke the control-resistance tension. When followed by a more-than strategy such as engaging third parties (e.g., users), this tension might become an opportunity for innovators to justify a collective need for creating new rules to support and diffuse innovations. Similarly, engaging with multiple stakeholders can generate the competing interests tension. When followed by a both-and (e.g., vacillation) and a more-than strategy (e.g., reframing the vision), this tension might help advance the innovation through generating creative ideas that are both novel and valuable for stakeholders.

In conclusion, we emphasize the importance of improving understanding of public innovation by taking a tension perspective. We have shown how this perspective sheds light on the positive side of barriers to innovation. We hope that the conceptual model and the process analytic approach we adopted will serve as a foundation for other researchers to advance knowledge on the evolving dynamics of public innovation.

References

Alves, H. (2013). Co-creation and innovation in public services. *The Service Industries Journal*, 33 (7-8), 671-82.

Andersen, E.S., Lundvall, B.A., (1988). Small national systems of innovation facing technological revolutions: an analytical framework. In Lundvall, B. Å., & Freeman, C. (Eds.). *Small Countries Facing the Technology Revolution* (pp.9-36), London: Pinter

Andriopoulos, C., and M.W. Lewis. (2009). Exploitation-exploration tensions and organisational ambidexterity: Managing paradoxes of innovation. *Organisation Science,* 20 (4), 696-717.

Benington, J. (2009). Creating the public in order to create public value? *International Journal of Public Administration,* 32 (3-4), 232-49.

Borins, S. (2014). *The persistence of innovation in government*. Washington: Brookings Institution Press

Bouchikhi, H. (1998). Living with and building on complexity: A constructivist perspective on organisations. *Organisation,* 5 (2), 217-32.

Bryson, J. M. (2004). What to do when stakeholders matter: Stakeholder identification and analysis techniques. *Public Management Review,* 6 (1), 21–53.

Bryson, J. M., B. C. Crosby, and L. Bloomberg. (2014). Public value governance: Moving beyond traditional public administration and the new public management. *Public Administration Review,* 74 (4), 445-56.

Bryson, J. M., B. C. Crosby, and D. Seo, (2020). Using a design approach to create collaborative governance. *Policy and Politics, 48*(1), 167-189.

Bryson, J., A. Sancino, J Benington, and E. Sørensen. (2017). Towards a multi-actor theory of public value co-creation. *Public Management Review, 19*(5), 640-654.

Cinar, E., P. Trott, and C. Simms. (2021). An international exploration of barriers and tactics in the public sector innovation process. *Public Management Review,* 23 (3), 326–353

Cinar, E., P. Trott, and C. Simms. (2019). A systematic review of barriers to public sector innovation process. *Public Management Review, 21*(2): 264-290.

Criado, J. I., R. Sandoval-Almazan, and J. R. Gil-Garcia. (2013). Government innovation through social media. *Government Information Quarterly,* 30 (4): 319-326.

Creswell, J. W., and C. N. Poth. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Thousand Oaks: SAGE Publications.

Daglio, M., D. Gerson, H. Kitchen. (2015), Building organisational capacity for public sector innovation. In Background paper prepared for the OECD (Organisation for Economic Cooperation and Development) conference "Innovating the public sector: from ideas to impact," Paris, 12-13 November 2014, https://www.oecd.org/innovating-the-public-sector/Background-report.pdf

Dekker, R., P. van den Brink, and A. Meijer, (2020). Social media adoption in the police: Barriers and strategies. *Government Information Quarterly,* 37 (2): 101441.

D'Este, P., Iammarino, S., Savona, M., & von Tunzelmann, N. (2012). What hampers innovation? Revealed barriers versus deterring barriers. *Research Policy*, *41*(2), 482-488.

De Vries, H., V. Bekkers, and L. Tummers. (2016). Innovation in the public sector: A systematic review and future research agenda. *Public Administration,* 94 (1): 146-66.

Douglass, B. (1980). The common good and the public interest. *Political Theory,* 8 (1): 103-17.

Dougherty, D. (1999). Organizing for Innovation. In Clegg, S.R., C. Hardy, and W.R. Nord (Eds.). *Managing organizations: Current issues* (pp. 174-189). London: SAGE Publications.

Ewens, H., & van der Voet, J. (2019). Organizational complexity and participatory innovation: participatory budgeting in local government. *Public Management Review*, *21*(12), 1848-1866.

Flemig, S., S. Osborne, and T. Kinder. (2016). Risky business - Reconceptualizing risk and innovation in public services. *Public Money and Management,* 36 (6): 425-32.

Fitzgerald, L., E. Ferlie, M. Wood, and C. Hawkins, (2002). Interlocking interactions, the diffusion of innovations in health care. *Human Relations*, *55*(12), 1429-1449.

Ford, J. D., and L. W. Ford. (2010). Stop blaming resistance to change and start using it. *Organisational Dynamics,* 39 (1): 24-36.

Fuglsang, L., and R. Rønning. (2015). On innovation patterns and value-tensions in public services. *The Service Industries Journal,* 35 (9), 467-82.

Gioia, D.A., K. G. Corley, and A.L. Hamilton. (2013). Seeking qualitative rigor in inductive research. *Organisational Research Methods,* 16 (1), 15-31.

Geertz, C. (1973). *The Interpretation of Cultures* New York: Basic Books.

Hahn, T, and E. Knight. (2021). The ontology of organisational paradox: A quantum approach. *Academy of Management Review,* 46(2): 362-384

Hansen, J.A., and S. Pihl-Thingvad. (2019). Managing employee innovative behaviour through transformational and transactional leadership styles. *Public Management Review*, *21*(6), 918-944.

Hargrave, T. J., & Van de Ven, A. H. (2017). Integrating dialectical and paradox perspectives on managing contradictions in organizations. *Organization Studies*, *38*(3-4), 319-339.

Hartley, J., Sørensen, E., & Torfing, J. (2013). Collaborative innovation: A viable alternative to market competition and organizational entrepreneurship. *Public Administration Review*, *73*(6), 821-830.

Hollander, J.A., and R.L. Einwohner. (2004). Conceptualizing resistance. *Sociological Forum,* 19(4), 533-554.

Innes, M., C. Roberts, A. Preece, and D. Rogers. (2016). Of instruments and data: Social media uses, abuses and analysis". In Fielding, N, R.M. Lee, and G. Blank (Eds.). *The SAGE Handbook of Online Research Methods* (pp.108-24). Thousand Oaks: SAGE Publications

Jaspers, S., and T. Steen. (2019). Realizing public values: Enhancement or obstruction? Exploring value tensions and coping strategies in the co-production of social care. *Public Management Review,* 21 (4), 606-627.

Linders, D. (2012). From e-government to we-government: Defining a typology for citizen coproduction in the age of social media. *Government Information Quarterly*, 29(4), 446-454.

Lövstål, E., and A.M. Jontoft. (2017). Tensions at the intersection of management control and innovation: A literature review. *Journal of Management Control*, 28 (1), 41-79.

Kattel, R., V. Lember, and P. Tõnurist. (2020). Collaborative innovation and human-machine networks. *Public Management Review,* 22 (11), 1652-1673.

Meijer, A., and J. De Jong. (2020). Managing value conflicts in public innovation: Ostrich, chameleon, and dolphin strategies. *International Journal of Public Administration,* 43(11), 977-988.

Meijer, A. J., and R. Torenvlied. (2016). Social media and the new organisation of government communications: An empirical analysis of Twitter usage by the Dutch police. *The American Review of Public Administration,* 46 (2), 143-161.

Meijer, A. (2015). E-governance innovation: Barriers and strategies. *Government Information Quarterly, 32*(2), 198-206.

Mergel, I. (2012). The social media innovation challenge in the public sector. *Information Polity,* 17 (3-4), 281-92.

Miles, Huberman, A. M., & Saldaña, J. (2018). *Qualitative data analysis: A methods sourcebook* (4th ed.). SAGE.

Park, S., and F. Berry. (2014). Successful diffusion of a failed policy: The case of pay-for performance in the US federal government. *Public Management Review,* 16 (6), 763–781

Perry, J. L., and H. G. Rainey. (1988). The public-private distinction in organisation theory: A critique and research strategy. *Academy of Management Review,* 13 (2), 182-201.

Putnam, L. L., G.T. Fairhurst, and S. Banghart. (2016). Contradictions, dialectics, and paradoxes in organisations: A constitutive approach. *Academy of Management Annals,* 10 (1), 65-171.

Raipa, A., and Giedraityte, V. (2014). Innovation process barriers in public sector: A comparative analysis in Lithuania and the European Union. *International Journal of Business and Management, 9*(10), 10-20.

Ramaswamy, M. (2009). E-government implementation in transition countries. In Weerakkody, V., Y. K. Dwivedi, and M. Janssen (Eds.). *Handbook of Research on ICT-enabled Transformational Government: A Global Perspective* (pp. 441-451). Hershey: IGI Global.

Schad, J., M.W. Lewis, S. Raisch, and W. K. Smith. (2016). Paradox research in management science: Looking back to move forward. *Academy of Management Annals*, 10 (1), 5-64.

Sheep, M.L, G. T. Fairhurst, and S. Khazanchi. (2017). Knots in the discourse of innovation: Investigating multiple tensions in a reacquired spin-off. *Organisation Studies,* 38(3-4), 463-488.

Smith, W. K. (2014). Dynamic decision making: A model of senior leaders managing strategic paradoxes. *Academy of Management Journal* 57 (6), 1592-1623.

Smith, W.K., and M. W. Lewis. (2011). Toward a theory of paradox: A dynamic equilibrium of organizing. *Academy of Management Review,* 36 (2), 381-403.

Smith, W.K, Erez, M., Jarvenpaa, S., Lewis, M. W., and Tracey, P. (2017). Adding complexity to theories of paradox, tensions, and dualities of innovation and change: Introduction to organization studies special issue on paradox, tensions, and dualities of innovation and change. *Organisation Studies, 38*(3-4), 303-317.

Sørensen, E, and J. Torfing. (2011). Enhancing collaborative innovation in the public sector. *Administration and Society,* 43 (8), 842-868.

Talbot, C. (2011). Paradoxes and prospects of 'public value.' *Public Money and Management*, 31(1), 27-34.

Thomas, K. W. (1992). Conflict and conflict management: Reflections and update. *Journal of Organisational Behaviour,* 13 (3), 265-74.

Torfing, J. (2019). Collaborative innovation in the public sector: The argument. *Public Management Review,* 21(1), 1-11.

Tucker, J. (1993). Everyday forms of employee resistance. *Sociological Forum*, 8 (1), 25-45.

Turner, J. A., Rijswijk, K., Williams, T., Barnard, T., & Klerkx, L. (2013). Challenges to effective interaction in the New Zealand agricultural research and extension system: an innovation systems analysis. *Extension Farming Systems Journal*, *9*(1), 89-98.

Vargo, S.L., M. A. Akaka, and H. Wieland. (2020). Rethinking the process of diffusion in innovation: A service-ecosystems and institutional perspective. *Journal of Business Research,* 116, 526-534.

Van Buuren, A., J. M. Lewis, B. Guy Peters, and W. Voorberg. (2020). Improving public policy and administration: Exploring the potential of design. *Policy and Politics, 48*(1), 3-19.

Voorberg, W. H., Bekkers, V. J., & Tummers, L. G. (2015). A systematic review of co-creation and co-production: Embarking on the social innovation journey. *Public Management Review, 17*(9), 1333-1357.

Wagenaar, H., and M. Wood. (2018). The precarious politics of public innovation. *Politics and Governance, 6*(1), 150-160.

Wipulanusat, W., Panuwatwanich, K., Stewart, R. A., & Sunkpho, J. (2019). Drivers and barriers to innovation in the Australian public service: A qualitative thematic analysis. *Engineering Management in Production and Services*, *11*(1), 7-22.

Chapter 4

Essay 3 - A Tension Lens for Understanding Entrepreneurship-related Activities in the University

Abstract

Using a tension lens, this paper explores how academic and non-academic staff who teach, practice and support entrepreneurship in two Canadian universities manage tensions associated with entrepreneurship-related activities, and how individuals' tension management influences these activities in university settings. We draw on three theoretical perspectives (contingency, paradox, and dialectic) on tension and tension management to analyze two tensions that individuals' experience: the reward tension that manifests as misalignment between reward systems and individuals' entrepreneurship-related activities; and the resource tension that presents as a struggle to do more with less. Individuals' decisions to search for new rewards or resources or to make the best use of existing policies and resources often depend on their employment status, the availability of helpers, and the type of entrepreneurship-related activities engaged. The study also shows that individuals' strategies in managing these two tensions influence the type, scale, and scope of entrepreneurship-related activities in the universities.

Keywords: entrepreneurial university; tension management; paradox; dialectic

Policy discourse is increasingly concerned with universities' role in socio-economic development (D'este & Perkmann, 2011; Tartari et al., 2014). In this, it has become fashionable to talk of the 'entrepreneurial university' (Guerrero & Urbano, 2012); positioning universities as key drivers of economic growth and social change (Klofsten et al., 2019). Of course, universities' engagement with broader societal or economic concerns is hardly new (Loi & Di Guardo, 2015). However, in the 'entrepreneurial university,' universities' engagement in knowledge transfer activities and in the enhancement of society's entrepreneurial capital are given greater prominence, and set alongside traditional teaching and research missions (Audretsch, 2014). In this light, enthusiasm for the 'entrepreneurial university' can be seen as an evolution of a more longstanding promotion of universities' third missions (Laredo, 2007).

Yet, despite broad rhetorical support for entrepreneurship in and by universities, the returns to third mission activities may be best characterised as mixed (Hmieleski & Powell, 2018). The promotion of entrepreneurial activities in universities is likely to encounter numerous challenges, many flowing from limited agreement on the meaning of entrepreneurship in universities, and on how the 'entrepreneurial university' can be achieved and its performance measured (Mainardes et al., 2011). Practical challenges may include the lack of an appropriate organizational structure and governance, the lack of funding and resources (Yordanova & Filipe, 2019), the lack of entrepreneurial role models in universities, the absence of a unified entrepreneurial culture (Philpott et al., 2011), the lack of incentives and entrepreneurial expertise, and inadequate links with industry (Kirby et al., 2011).

However, the literature frequently identifies the top-down nature of many initiatives and the lack of attention to the varying motivations and goals of individual actors as fundamental impediments to successfully entrepreneuring in a university setting (Hmieleski & Powell, 2018; Jain et al., 2009). At the extreme, this is characterised as a tension between "the traditional Mertonian ideals of basic science and the reality of an encroaching market-oriented logic" (Lam 2011, p.1356), or as a tension between bureaucracy and entrepreneurship (Tartari et al., 2014). In practice, it is likely to be manifest in uncertainties arising from changing roles and muddled incentives. For instance, as Mangematin et al. (2014, p.2) note, "scientists have been trained to produce science, to write papers and teach". Tasking them with other roles – as brokers with industry, inter-organizational politicians, or innovators – inevitably leads to insecurity and may lead to resistance. Resistance stems from fear of the unknown associated with change. In the more dynamic environment, on which the need for the entrepreneurial university is premised, university actors "must learn to manage paradoxical strategies – strategies associated with contradictory, yet interwoven tensions" (O'Kane et al., 2015, p. 201). Tensions associated with entrepreneurship in universities will be bound up in what Lam (2011) has called the "normative duality" that governs many contemporary universities. Frequent questions associated with this duality include: Will knowledge capitalization and a logic of profit making threaten the traditional core academic values of teaching and searching for knowledge (Goldstein, 2010; Rubins, 2007)? Will commercial interests undermine standards of academic freedom and integrity (Creed et al., 2021)? Will engagement in entrepreneurship draw scientists away from basic research and negatively affect student-teacher relationships (Kumar, 2010)? These questions represent a tension between "old" and "new" paradigms, as universities are gradually transforming themselves from "ivory towers to engines of economic growth" (D'este & Perkmann, 2011, p. 316) in the face of increased funding pressures, growing managerialism, and greater scrutiny of their economic impact (Abreu et al., 2016).

We view tensions as 'competing demands that are contradictory yet interdependent' (Smith et al., 2017, p.305). Tensions occur during change and innovation as organizations struggle between exploiting old certainties and exploring new opportunities (Andriopoulos & Lewis, 2009). We believe a tension lens is appropriate for understanding moves towards the entrepreneurial university, and entrepreneurship within the university, because uncertainties associated with change are fundamental to foundational thinking about entrepreneurial behaviour (Kirzner, 1997). Conceptions of the entrepreneurial university go beyond the 'knowledge capitalization' activities (e.g., spinoff and licensing activity) associated with earlier injunctions towards a third mission (e.g., Mowery & Shane, 2002). Rather, the goal is the development of entrepreneurial mindsets, skills, and competencies (Hasan et al., 2017) and the transformation of universities from organizations concerned primarily with research and teaching (i.e., with knowledge creation and dissemination) to organizations active in the exploitation of knowledge for economic and social gain (Guerrero & Urbano, 2012). This requires a focus on how universities cultivate a culture of innovation as an integral part of the transformation process (Kirby et al., 2011).

In this paper, we adopt a tension lens to explore how individuals who teach, practice and support entrepreneurship in two Canadian universities manage tensions with (in) the university. The objective is to address a gap in understanding at the nexus of the individual and the university and explore how individuals navigate the challenges and tensions manifest in individual-university interactions on entrepreneurship-related activities. Much of the extant literature has focused on examining the entrepreneurial university at the organizational or societal levels (Freel et al., 2019). Research has investigated, for example, the efforts that universities are making to transform themselves (Etzkowitz, 2004; Guerrero & Urbano, 2012; Klofsten et al., 2019), and the role of universities in regional or national innovation systems (Cerver Romero et al., 2021). In contrast, there has been less attention to how universities' entrepreneurship practices are shaped by individuals who work in these organizations (Hytti, 2021). Certainly, research has examined how researchers manage dual roles as both academics and entrepreneurs or enact a hybrid science-business role identity (Tuunainen, 2005;

Vestergaard, 2007; O'Kane et al., 2020) and how university department heads deal with the clash between business values and academic values (Sotirakou, 2004). However, we believe that insufficient attention has been paid to university actors who engage in entrepreneurship in a broader sense. Many individuals work to inspire, educate, and support entrepreneurs. Not all of those who engage in entrepreneurial activities in universities are entrepreneurs (i.e., engaged in new venture creation). It is also through the contributions of individuals who teach, practice and support entrepreneurship that an internal entrepreneurial ecosystem ("a set of interdependent actors and factors coordinated in such a way as to enable productive entrepreneurship," Pustovrh et al., 2020, p.119892) can develop and grow.

Theoretically, a tension lens at the individual-university level offers a bottom-up perspective and complements the traditional principal-agent perspective that considers individual-university interactions in a top-down manner (Gianiodis et al., 2016; Staniulyte, 2021). Past work suggests that individuals are likely to be more supportive of a bottom-up approach to promoting entrepreneurship in the university (Philpott et al., 2011). Understanding how individuals experience and manage tensions with the university is an essential element in theorizing entrepreneurial processes and transformations in universities. Moreover, complementing existing research that typically studies the entrepreneurial university from a macro Triple Helix of university-industry-government approach or a micro researcher-entrepreneur model (Cerver et al., 2021), this paper focuses on the interactive and conflictual dynamics between the "old" and the "new" paradigm and how these tensions are managed within the micro-macro relationships between individuals and the university. As individuals embark on entrepreneurship-related activities, they are likely to experience the conflict between the established and emerging paradigms and conflict of interests with the university. Studying individual-university interactions can help connect micro- and macro-level research by demonstrating how individual level actions are simultaneously constrained by the old paradigm and shape the development of the new paradigm at the university level. From a practice standpoint, researching the tension dynamics between the university and individuals who work at the front-line of entrepreneurship can shed light on how to build an entrepreneurial university.

Conceptual Overview

Individual-University Tensions Related to Entrepreneurship

Tensions and barriers associated with entrepreneurship in the university have been a major topic in the literature. Tensions might manifest as role conflicts between academic roles and business roles at the intrapersonal level (O'Kane et al., 2020) or as misaligned objectives and interests at the institutional level among university, government, and industry stakeholders (Sarpong et al., 2017). However, how tensions manifest at the individual-university (i.e., individual-organization) level has not been widely studied. Commonly mentioned barriers reveal some sources of individual-university tension. For example, faculty and staff might have disagreements about how entrepreneurship should be implemented in the university. Many academics hold a view that entrepreneurship development is only about research commercialization (Philpott et al., 2011). However, in many universities, entrepreneurship-related activities have evolved from a traditional focus on technology transfer to a broader focus encompassing both commercial activities, such as licensing and contract research, and non-commercial activities such as providing informal advice and giving public lectures (Abreu & Grinevich, 2013).

In this paper, we focus on two individual-university tensions that emerged from interview data: a tension between rewarding individuals' entrepreneurship-related activities and universities' traditional reward system, and a tension between individuals' needs for entrepreneurial resources and universities' traditional resource allocation system. We focus on three groups of individuals who teach, practice and support entrepreneurship. Our focus is on university employees, and not students. Undoubtedly, students are important sources of entrepreneurship within universities (Siegel & Wright, 2015). However, the student-university relationship is substantively different from the employee-university relationship, with clear differences in reward and resource allocation systems.

We consider a reward system as a "structured method of evaluating and compensating employees based on their performance" (Bakar et al., 2015, p.139). A reward system contains monetary and non-monetary (e.g., recognition and reputation) rewards (Göktepe-Hulten & Mahagaonkar, 2010). The importance of aligning universities' reward systems with entrepreneurship-related activities has been well documented (Markman et al., 2004; Siegel et al., 2003). Yet, despite rhetorical support from inside and outside of universities for entrepreneurship-related activities, academics "frequently perceive publications to be more highly rewarded than technology transfer engagement" (Hmieleski & Powell, 2018, p.58). The continuation of traditional rewards systems that are primarily framed around "peer recognition in the form of publications, citations and prizes" (Lam, 2011, p.1354) triggers a reward tension for individuals who are engaged in entrepreneurship-related activities, especially for academics. Academics have to navigate this tension between entrepreneurship-related activities and academic activities, alongside intrinsic motivations of achievement and problem-solving; what

Lam (2011) calls “ribbons” and “puzzles”, respectively. In this light, it is important to examine how individuals manage the reward tension in a context of potentially misaligned incentives.

A resource allocation system is “a process of allocating the limited resources to different parts of an organization in order to satisfy the overall goals” (Limukii et al., 2014, p. 419). It has been argued that the apparent enthusiasm for the “entrepreneurial university” is a response to changes in government funding practices (Sharma, 2004). As university funding models gradually shift from enrolment-based to performance-based, to respond to the changing funding environment, “the economic impact of university research has also come under increased public scrutiny” (Abreu & Grinevich, 2013, p.408). The changing funding environment has affected how universities allocate resources among teaching, research and third mission activities. For some universities, “being entrepreneurial” means “doing more with less” (Todorovic et al., 2005). However, access to key resources and support is likely to affect entrepreneurial motivation and success (Yi, 2021). For example, research has shown that the excellence of universities’ research human capital, the type and size of an academic entrepreneur’s social network, and university-based financial support are associated both with the number of academic spin-offs and the performance of these new ventures (Gómez Gras et al., 2008; Hayter, 2015). In this sense, individuals who engage in entrepreneurship-related activities can be caught in a resource tension in which they often need to bricolage or make do “by applying combinations of the resources at hand to new problems and opportunities” (Baker & Nelson, 2005, p. 33). Resource constraints might limit the realm of possibilities and pull individuals away from entrepreneurship-related activities (Yordanova & Filipe, 2019), but resource constraints might also push individuals to explore innovative ways to teach, practice or support entrepreneurship (Fisher, 2012).

A Theoretical Review of Tension Management

We use the framework which builds on work by Hargrave & Van De Ven (2017), Putnam et al., (2016), Smith & Lewis (2011), and Thomas (1992), to guide our analysis of tension management. The framework reflects three theoretical lenses on tension management: contingency, paradox, and dialectic.

The Contingency Perspective

The contingency perspective focuses on the conflicting nature of tensions and stresses the importance of making an either-or choice in reaction to a given contingency. The assumption is that the contingency is stable in the short run (Thomas, 1992). Contingency strategies are pragmatic and short-term focused. Examples of such strategies include avoiding (an either-or choice to stay away from tensions rather than live with them) and favoring one side of the tension over the other. In the context of the university, "buffering"- i.e., protecting one's academic role from the impact of the commercialisation activities - has been identified by Jain et al. (2009) as one mechanism for managing role conflicts faced by academics who also engage in entrepreneurship. This strategy involves making an "either-or" choice in a tension situation, and typically prioritizes academic work over entrepreneurship-related activities.

The Paradox Perspective

The paradox perspective views tensions as contradictory yet interdependent forces that simultaneously persist over time (Ritala et al., 2017). This perspective argues that the competing demands must be managed in a "both-and" fashion to ensure long-term sustainability (Smith & Lewis, 2011). The paradox perspective is long-term focused and favors a balancing approach to tension management such as 'compromise' or 'integration' (Putnam et al., 2016). For example, in managing role conflict between being an academic and an entrepreneur, some university-based principal investigators might construct a hybrid academic-business identity which contains four roles as science networker, research contractor, project manager, and entrepreneur (O'Kane et al., 2020). The construction of a hybrid academic-business identity is often associated with personal motivation to demonstrate that academic research is applicable and to generate revenue to finance research activities (Leišytė & Hosch-Dayican, 2016). In this sense, although academic and entrepreneurship-related activities have conflicting goals, in terms of identity development, academic and business identities can co-exist and be complementary and mutually supportive (Wang et al., 2022).

The Dialectic Perspective

The dialectic perspective is also long-term oriented but differs from the paradox perspective in its view of power relations. Unlike the paradox perspective which assumes actors accept the tensions in a symmetric power relation (Hargrave & Van De Ven 2017), the dialectic perspective assumes that actors resist the tensions and manage them through a 'more-than' approach (Hargrave & Van De Ven 2017). More-than strategies often transcend tensions through reframing, introducing third parties or finding a workaround. In university contexts, third parties have often been engaged to alleviate the tension between entrepreneurship and academic work. For example, Jain et al. (2009) found that some professors "delegate" commercialization activities to technology transfer professionals or students as a way to balance the tension between academic activities and entrepreneurship.

Table 4-1 summarises our framework. In this, each of the perspectives is characterised by differing conceptions of tensions, different approaches to tension management, and by differences in likely outcomes.

Table 4-1

A Comparison of Theoretical Perspectives on Tension Management

Theoretical lens	Contingency perspective	Paradox perspective	Dialectical Perspective
Theoretical focus	Pragmatic	Visionary, prescriptive	Descriptive, focus on how tensions transform over time
Characteristics of tensions	Contradictory	rsistent, contradictory but interdependent	Persistent, contradictory but interdependent
Goal	Coping	radoxical resolution; foster learning and creativity	Production of transformation through politics and conflicts
Assumptions	Contextual variables are given	ntextual variables are changeable	Actors resist the tension and seek to dominate and overcome opponents; Unstable, asymmetrical distribution of power
Tension management approach	Either-or -Defensive reactions (e.g., denial or withdrawal) -Selection or privileging one pole (e.g., focus on competition over cooperation) -Separation or segmentation (e.g., through temporal splitting or structural differentiation)	Both-and -Paradoxical thinking (increases cognitive abilities to recognize opposites) -Vacillation or spiraling inversion (shifting back and forth between two poles) -Integration and balance (e.g., compromise)	More-than -Reframing and transcendence (situate the pairs in a novel relationship) -Connecting, third space and dialogue (engage opposites in an ongoing dynamic play or create a third space for dialogue) -Reflective practice and serious playfulness (e.g., use humor to surface tension and develop reflective practice)
Outcome	Conflict is resolved	Ongoing reproduction of dynamic tension between opposites through differentiation and synergy	Conflict between contradictory elements unintendedly produces transformation, which later becomes a new element in tension as the dialectical process recycles

Note: Adapted from Hargrave & Van De Ven (2017), Putnam et al. (2016), Smith & Lewis (2011), Thomas (1992)

Methodology

This research uses a qualitative approach to explore how individuals manage tensions with the university when engaged in entrepreneurship-related activities. This is because a qualitative research method allows for a rich understanding (Creswell & Poth, 2018) of tensions and contextual conditions that influence the choice of tension management strategies. We conducted interviews with individuals who teach, practice and support entrepreneurship in two Canadian universities.

The Cases

Both universities are mid-sized public research universities and have a reputation for supporting entrepreneurship, although they differ in their foci. University A is located in the downtown area of a big vibrant city and has strong industry connections and partnerships. Its physical location and applied research approach to finding solutions to real world problems helped the university develop a strong focus on student entrepreneurship with a diverse portfolio of start-ups. University B is located in a town with a vibrant technology community and start-up culture. The university supports both students and faculty with an emphasis on science or technology related businesses. Table 4-2 provides more details of these two universities concerning entrepreneurship education, technology transfer and business incubators.

Table 4-2

Entrepreneurship-related Activities in Universities A and B

	University A	University B
Entrepreneurship Education	Has a business school which also offers entrepreneurship programs. Some departments have their own entrepreneurship courses that have been adapted to their own industry context (e.g., technology-based Silicon Valley model does not work for creative industries which have lots of lifestyle firms). The department of engineering has its own entrepreneurship program at the Master level.	Has no business school. The entrepreneurship school is within the department of engineering. Has multiple entrepreneurship programs run by differently departments.
Technology transfer	The technology transfer function is managed by the office of vice president, research, and innovation. There is no technology transfer office.	Has one commercialization office which focuses on serving faculty and research students

	University A	University B
Business incubators/ accelerators	Has 10 incubators in different areas (such as fashion, music, design) serving both the university and the community Only one major incubator/accelerator was funded by the university and the rest are funded by departments and external funders such as government or private partners	Has one incubator/accelerator serving both the university and the community. The incubator is directly funded by the university. Has a pre-incubator program that exclusively serves students from University B. Has a social impact incubator that offers programs, opportunities and networks for students who are interested in solving social or environmental issues

Data Collection

We used two sources of data in this study. Semi-structured interviews with faculty and staff provided the primary source of data. The secondary data include documents obtained online or from interviewees related to various entrepreneurship programs, university policies, strategic plans, and reports from incubators. Secondary documents are a valuable source of information for understanding the context within which entrepreneurship-related activities are undertaken and tensions are managed. Together, these two data sets allow us better understand individuals' tension experiences and the university context in which these tensions are embedded.

Using purposive sampling, we reached out to potential faculty and staff interviewees based on their position titles (e.g., technology transfer officer, assistant professor) and brief descriptions of their background (e.g., teaching and research areas, engagement in entrepreneurship-related activities). In total, we conducted 27 semi-structured interviews (see Table 4-3). These interviewees include tenured and pre-tenured professors who teach entrepreneurship, professors who have their own companies or are engaged in commercialization, and staff in university-based incubators and technology transfer offices. Interviewees were asked to describe the most salient tensions associated with entrepreneurship-related activities they had experienced and how they managed these tensions. Interviews ranged from 45 to 90 minutes and were digitally recorded and transcribed.

Table 4-3

Data Sources -Interviews

Interviewees	**Lecturer**	**Assistant Prof.**	**Associate Prof.**	**Full Prof.**	**Employee**	**Director**	**Total**
Individuals who teach entrepreneurship	3	2	4	3	N/A	1	**13**
Individuals who practice entrepreneurship	2	2	3	1	1	N/A	**9**
Individuals who support entrepreneurship	1	N/A	1	1	4	6	**13**
Total (some individuals have multiple roles)	**3**	**3**	**4**	**5**	**4**	**8**	**27**

Data Analysis

We used qualitative software (QDA Miner Lite) to facilitate the coding process. Data were analysed using deductive and inductive approaches described in Miles et al. (2018). In the first coding cycle, inductive coding was employed to derive tension themes from the data. We identified two common tensions observed in both universities at the individual-university level. We chose these two tensions because they strongly emerged from the interviews. In the second coding cycle, we used deductive coding to categorize tension management strategies associated with each of these two tensions. We used codes derived from the literature on tension management (either-or, both-and, and more-than strategies). Since we are interested in learning how individuals' tension management is affected by the university and affects, in turn, entrepreneurship-related activities at the university level, we also coded contextual factors that influenced the choice of tension management strategies (e.g., individuals' tenure status) and tension management outcomes. As the analysis advanced, we grouped first-order concepts into more abstract second order themes, which we further grouped into overarching dimensions (Gioia et al., 2013). We present the data structure in Table 4-4.

Table 4-4

Data Structure

1st Order Concepts	2nd Order Themes	Overarching Dimensions
Performance evaluations are standard and performance expectations at the end of the day are not really changed. (An assistant professor who teaches entrepreneurship)	Reward systems incompatible with entrepreneurship-related activities	Reward tension
The university dumps a lot of students in a big lecture Hall, and the students have to read, and they get lectures and quizzes. But it is not always ideal to teach entrepreneurship. (A professor who teaches entrepreneurship)	Non optimal allocation of resources to entrepreneurship-related activities	Resource tension
There are pressures to publish, and I hear it all the time. I kind of ignore the pressure and continue to do what I am doing. (An associate professor who teaches and supports entrepreneurship)	Continuing entrepreneurship-related activities	Either-or approach
Non-academic staff do not stay because the university pays them part time, or it does not pay them well enough. (A professor who founded an incubator)	Leaving the position	
I said I will do it, but this is not… the way to teach entrepreneurship (A professor who was forced to teach a big class on entrepreneurship)	Adapting and living with resource constraints	
The university wants to make sure that people are contributing properly to their academic responsibilities. So, I have to make choices about the entrepreneurial activities that I undertake. (An associate professor who has her own company)	Balancing entrepreneurship and academic activities	Both-and approach
The incubator provides start-ups access to a diverse talent pool of our students and collaboration with our cutting-edge research teams (On an incubator's website)	Integrating with existing resources	
We applied and got three-year funding from Ontario Center for Excellence. (A professor who founded an incubator)	Acquiring third-party resources	More-than approach
We kept building more alliances. I am trying to find the right resources to serve many people. (A director of an innovation center)	Attracting resources as a group	
You have a moral obligation to try it and figure it out (A director of commercialization)	Type of employment (Academic vs. non-academic positions)	Contextual factors

1st Order Concepts	2nd Order Themes	Overarching Dimensions
I think it would be dangerous for me to show any interest in discussion about entrepreneurship because I am a junior faculty. (An assistant professor who has her own company)	Tenure status (Pre-tenure vs. tenured faculty)	
My co-founder does a lot of things, and I just do not have the time right now to really put into the company. (An assistant professor who has her own company)	Availability of helpers	
You are not expected to stay more than one year unless you are the director (An entrepreneurship program coordinator)	Level of positions (employee vs. manager)	

Results

In this section, we present our analysis of the two individual-university tensions as well as tension management strategies used by individuals.

The Reward Tension

Many interviewees considered that while the universities support entrepreneurship-related activities, individuals' efforts and performance are not properly evaluated and rewarded. Individuals in various positions experienced and managed this reward tension differently. Below we discuss the manifestation of this tension among academic and non-academic staff and present individual strategies used to manage this tension.

Many academic interviewees mentioned that entrepreneurship-related activities are work-intensive, yet academic performance evaluation remains heavily tilted toward scholarly publications. The reward tension is experienced by academics engaged in various entrepreneurship-related activities. First, academic interviewees who teach entrepreneurship mentioned that entrepreneurship courses require extensive preparation due to their interdisciplinary and experiential nature. For example, they have to keep abreast of new research or practices and continue developing new pedagogical strategies. They also need to customize course content to suit specific industries or students with no business background and spend extensive time mentoring students who plan to start their own companies. However, publications remain the focus of academic performance evaluation and little consideration has been given to the considerable input required for faculty who teach entrepreneurship. As one associate professor commented, "*entrepreneurship is something good to have, but not necessarily taken into account in your performance evaluation*." Second, with regards to commercialization by researchers, it represents "*doing more than just publishing"* as a director of an innovation and entrepreneurship centre pointed out. Besides filing patents and protecting intellectual property, researchers also need to ensure their engagements are ethical by "*justifying and convincing people that they are not abusing their power, not abusing students, and not stealing money"* as stated by an assistant professor who is in the process of commercializing his research. Such additional work can reduce the time academics spend on writing papers, especially when there is a need to delay publishing research to file a patent application. Third, academics who support entrepreneurship-related activities also face the same dilemma. As explained by a full professor who founded a business incubator, "*entrepreneurship is not something I can do on the side, like 3 hours per week. I started spending most of my time on this*." Again, more time on entrepreneurship-related activities implies less time on research. In essence, the interview data show that entrepreneurship-related activities require intensive work, reduce time spent on research, and can negatively affect academic performance evaluation as well as tenure and promotion. As an assistant professor who teaches and practices entrepreneurship described,

> *This is a really weird tension. What you are doing is somewhat encouraged by one set of institutional norms, but very much discouraged by another set of these institutional norms. Entrepreneurship activities reduce my productivity in research where my performance gets measured, but they enhance my ability in teaching entrepreneurship.*

It should be noted that the reward tension is less evident among full professors and among those who have supporters helping with entrepreneurship-related activities. This is because tenured professors tend to have more autonomy over their academic work. An academic interviewee mentioned that the university does not strongly manage the workload of tenured professors because of potential labour conflict with the faculty union. Also, co-founders or employees are often mentioned by interviewees as helpers to alleviate entrepreneurship workload. As stated by an associate professor who owns her own company, "*I could not have done it without the very strong co-founder and a very strong team."* As such, tenure status and the availability of helpers and collaborators are factors that potentially reduce individuals' experience of the reward tension.

Non-academic interviewees also experienced a reward tension. The temporary nature of many non-academic positions along with increasing workload leads many non-academic staff to become dissatisfied with workplace rewards. As described by an associate professor who teaches and supports entrepreneurship, there has been an increasing need for non-academic staff as many entrepreneurship programs or incubators initiated by faculty or students were left to non-academic staff to carry out. However, non-academic positions are often temporary (1-3 years) and depend on the availability of funding. As such, these staff have limited opportunities for pay advancement or promotion. For example, one innovation coordinator said that she is on a one-year contract and her supervisor did not expect her to stay long, even encouraging her to use the position as "*a stepping stone for moving into the next thing*." A former executive director of an incubator in University A mentioned that her salary has been frozen for years despite remarkable success of the incubator.

The manner in which entrepreneurship-related activities are evaluated also contributes to the reward tension experienced by non-academic staff. A director of commercialization mentioned that their performance evaluation and rewards are based on the number of projects completed, and the reward system fails to take the increasing complexity of their work into consideration. Research collaboration among multiple institutions "*has created a whole layer of complexity*" for his work. A recent commercialization project involving researchers from four universities took his team about one year to work out all the agreements concerning ownership rights and revenue sharing with three other universities. In sum, while non-academic interviewees value their work experience and opportunities to learn new things, many believe their pay is not commensurate with their heavy workload. As described by former director of an incubator,

> *People who joined me at that time were passionate about entrepreneurship. They knew that they were going to learn in leaps and bounds and they worked very long hours. I do believe everyone needs to be paid fairly for what they do. If you cannot compensate with money, at least you need to give something else that people valued.*

Overall, the reward tension manifests differently among academic and non-academic staff. For academic staff, the tension manifests as a struggle between publishing research, which is encouraged and rewarded by the university, and engaging in work-intensive entrepreneurship-related activities, which often take their time away from doing research. For non-academic staff, the tension manifests as a struggle between taking an attractive job with heavy workload and accepting a temporary position with limited opportunities for pay raises or promotions. The reward tension is more pronounced among pre-tenure academics and non-managerial non-academic employees.

The following strategies have been observed in managing the reward tension: (1) **ignoring** the tension and continuing with entrepreneurship-related activities; (2) **withdrawing** from the tension by leaving the position or the university; (3) **balancing** entrepreneurship workload through selective engagement. Below we discuss these strategies and the main contextual factors that affect the choice of strategy.

The first strategy features an either-or choice which favours entrepreneurship over academic activities. Individuals who have obtained tenure and who have a strong intrinsic motivation to show the impacts of their research, to help start-ups, or to contribute to the university's third mission are likely to choose this strategy. This is likely because these individuals are seeking intrinsic satisfaction from entrepreneurship-related activities. For example, when talking about an entrepreneurship program he initiated, a tenured professor said that "*within 10 years of retirement, I did not care anymore. I am going to do things exactly the way I want to.*" He developed an art-led entrepreneurship education program to help undergraduate students conceptualize, prototype, and test combinations of private partners' technologies to identify new business opportunities. Another assistant professor in the biomedical field said that he had to delay publishing his research to protect the intellectual property which will be used for commercialization. He believes that academic success should not be limited to publications but should be extended to include impacts on the industry or benefits to the community. He said that he "*has hopes for high returns five or six years from now*" from commercializing his research. As such, although he received an unsatisfactory academic performance evaluation in the previous year, he continued with his entrepreneurship activities. This strategy is not applicable to non-academic staff because they are hired to carry out entrepreneurship-related activities. For them, the solution to the reward tension is not about choosing entrepreneurship or not, but about taking or leaving the position.

The second strategy is withdrawing from the tension by leaving the position. This strategy is observed among non-academic staff who work in business incubators. For non-managerial employees, this is likely because of the short-term nature of such positions or low remuneration relative to workload. The heavy workload also affects high-level executives. As shared by a former executive director of an incubator, he left the position because he was burned out and *"part of what makes it hard is that you're trying to help a lot of people simultaneously."* Another reason is that some non-academic staff are mostly interested in gaining experience from the position, *"their ultimate goal is to do their own start-ups"* as an innovation coordinator pointed out. For these reasons, when monetary and non-monetary rewards fail to meet non-academic staff's expectations, they often choose to leave the positions.

The third strategy is balancing entrepreneurship workload through selective engagement. This strategy applies to both academic and non-academic staff. A tenured professor stated that academic staff might "*ask for course releases or leaves of absence."* Both are established mechanisms in universities to allow employees to adjust their workload. Academics might also choose to selectively engage in entrepreneurship if they can find helpers (e.g., co-founders) to manage the associated workload. With respect to non-academic staff, they can selectively engage in entrepreneurship-related activities by choosing tasks that are relatively simple. A technology transfer officer stated, *"I have many choices to work on, why would I work on the complex projects?"* In short, the balancing strategy can be achieved through using universities' existing policies, using helpers, or reducing the workload through selective engagement.

The interview data shows that individuals' tension management can affect entrepreneurship-related activities at the university level in different ways. While the university might benefit from academic staff's either-or choice of continuing their entrepreneurship-related activities, non-academic staff's either-or choice to leave their positions will pose challenges for universities in recruitment and training. High-level executives are particularly hard to attract because, as an assistant vice-president who manages on-campus incubators indicated, these candidates "*do not fit into universities' normal structure, classifications, and job descriptions. We have to create new job descriptions and the hiring process is lengthy."* The continued need for training new non-academic staff will also affect the operation of entrepreneurship-related activities. As noted by a professor who founded a business incubator, "*we have to train somebody every two years. If the administrative problem is not fixed, our incubator will not live up to its next full-fledged development*." For this reason, a director of an innovation and entrepreneurship centre suggested that the university may consider "*establishing service-track positions to attract people who are good in managing commercialization or managing technology transfer."* When individuals try to balance the extra workload through selective engagement, the absence of appropriately aligned rewards might disincentivize individuals from engaging in complex and time-consuming entrepreneurship-related activities. A professor who founded an entrepreneurship program noted that *"some money never gets spent because it is not worth the time to spend it. Because you do not get paid for that part."* While individuals seek rewards for their efforts and performance, the same professor further pointed out that *"people should be rewarded for trying and for failing."* This is because entrepreneurship is inherently risky, and it may be problematic if staff are only rewarded for success. As a program manager of an incubator suggested that

It is important to create a space for entrepreneurs in which they can fail, as fast as they can and as many times as they can. You cannot just think in an academic year, you need to think in a long-term view.

The Resource Tension

The data pointed to a resource tension whereby universities encourage entrepreneurship-related activities but provide limited resources and supports, and individuals struggle with doing more with less. Individuals engaged in diverse types of entrepreneurship-related activities experienced and managed this tension differently. Below we discuss the manifestation of this tension among individuals who teach, practice and support entrepreneurship.

For individuals who teach entrepreneurship, the resource tension is less pronounced given that teaching is one of the core missions of the university and is generally funded through tuition fees. However, on occasion, the university's resource allocation may be at odds with an individual's preferred pedagogy. For example, one professor mentioned that the university enrolled about 140 students into an entrepreneurship course he taught, and that he had had to teach the course in a movie theatre because there was no available classroom to accommodate so many students. He said, "*But that is not how you teach a practice-oriented discipline. Entrepreneurship is a hands-on thing, and you cannot teach it through a lecture mode*." In this example, the university's interests in achieving economies of scale triggered the resource tension for the individual.

For individuals who practice entrepreneurship, the resource tension is pronounced, particularly among faculty entrepreneurs who are engaged in commercialization. Both universities have a creator-owned intellectual property policy and many faculty interviewees agreed that allowing researchers to retain the ownership of academic inventions is an important incentive for encouraging research commercialization. However, many faculty interviewees felt a resource tension because the support for faculty entrepreneurs is not as strong as for student entrepreneurs. This is likely because the two universities have many ethical concerns about faculty members' engagement in entrepreneurship, such as whether faculty entrepreneurs might abuse research funding, take advantage of students, or compromise the integrity of academic research in exchange for industry sponsorship and personal gain. Managing these potential conflicts of interest often require meetings to reach agreements on how to ensure both sides' interests are protected. These due processes increase the workload and resource burden on faculty entrepreneurs. In addition, the two universities seem to be hesitant to invest a large amount of public funding to support faculty entrepreneurs due to a concern about public image. As the director of an innovation centre commented, "*Is it okay that the university takes taxpayers' money and gives it to selected faculty entrepreneurs to make them rich? It is a challenging question to answer*."

Individuals who support entrepreneurship also experience the resource tension. For example, only two flagship incubators are directly funded by the two universities and the remaining incubators are heavily dependent upon external funding from governments, private partners, and other stakeholders. As described by a program manager of a social entrepreneurship incubator, "*our program is funded as a cost centre internally. As the university faces pressure to cut the costs of various programs, we need to be continually hedging against that risk by finding external funders*." Interestingly, he also commented that "*the only tangible value that we bring back to the university is that it's been their most successful source of storytelling when it comes to external relation, marketing, and fundraising*." Clearly, incubators brought enhanced reputation for the universities but received limited internal funding. For the universities, this represents an efficient use of resources. However, for individuals working in the incubators, this represents a resource tension.

The following strategies are observed among individuals in managing the resource tension: (1) **living** with resource constraints; (2) **integrating with existing resources** to achieve multiple goals; (3) **acquiring third-party resources** by engaging industries, government, and other stakeholders, and expanding the definition of entrepreneurship; (4) **attracting resources as a group** and engaging in activities at a larger scale.

The first strategy is an either-or strategy as individuals choose to adapt their entrepreneurship-related activities to resource constraints imposed by the university. We only observed this strategy in the teaching example mentioned earlier. While the professor believed that entrepreneurship – given its practical nature – should be taught in a small class, he had to live with resource constraints and teach a very large entrepreneurship class. As such, while the university has achieved resource efficiency, it is less clear whether it has used its resources effectively.

The second strategy is a both-and strategy as individuals try to integrate resources for entrepreneurship with existing resources for teaching and research. This strategy is often used by individuals who support entrepreneurship. For example, according to the interviewees, many incubators on campus are marketed as the new classroom for experiential learning. Therefore, university-based incubators can tap into university's existing teaching resources, develop training or certificate programs for the public, and charge fees for the courses as a way to fund the incubator. A director of an innovation and entrepreneurship centre shared his strategy, *"mix training and education and commercialization together, and find the right way to integrate resources…."* For instance, by integrating funding related to economic development and funding for student training, he was able to reduce the conflicting views of some faculty toward commercialization, legitimize entrepreneurship-related activities and deliver programs to achieve multiple goals: commercialize technologies, train students and faculty, and develop partnerships with businesses and university-based incubator-accelerators.

The third strategy is a more-than strategy which involves obtaining resources from third parties and/or reframing the scope and objective of entrepreneurship. Third parties include government departments, industry actors, as well as various partners who would like to support universities' entrepreneurship-related activities. Third-party resources include not only financial resources, but also physical facilities, business mentors or advisors, and social networks. For example, provincial and federal governments provide entrepreneurship funding for universities on a competition basis. Companies might provide funding for commercialization in exchange for license and revenue sharing rights. Some incubators also acquire external funding through charging membership fees or taking equity positions in start-ups. In short, for individuals who are engaged in entrepreneurship-related activities, acquiring third party resources is an essential element because it is unlikely that the university would provide all the resources needed. A key condition for acquiring third party resources is "*aligning the incentives and motivation and the goals,"* as indicated by the director of an innovation and entrepreneurship centre. To do so, expanding the definition of entrepreneurship is found to be helpful. A professor who teaches and supports entrepreneurship shared her view, "*Entrepreneurship is not necessarily related to profit, it is a mindset. It is a set of processes to create something new and to change how people do things."* Based on her experience, she found that expanding the scope and objective of entrepreneurship to include change making, innovation, social justice, or sustainable development helped her obtain buy-in from a wider community and acquire needed resources. A director of an innovation centre also found that reframing the goal of entrepreneurship can help legitimize entrepreneurship-related activities on campus. He explained that "*the minute we clarified that our goal is not start-ups, but to benefit the community out of research, it made things easier.*"

The fourth strategy can also be considered a more-than strategy because it looks beyond the single university and tries to develop entrepreneurship on a larger scale. For example, in overcoming resource constraints, University A, in collaboration with several Canadian universities, launched a new national-level entrepreneurship program that aims to translate research from lab to market with a focus on graduate students and their faculty supervisors. The idea originally came from a vice president managing on-campus incubators in University A. The idea was then further developed by a pan-Canadian network of university-linked accelerators and incubators. This new research commercialization program has been described as "*first-of-its-kind national program*" (as per the program's website) and has received funding and support from three government agencies and two non-for-profit partners. Hence, doing entrepreneurship on a larger scale not only provides the necessary resources and support for individuals who are running entrepreneurship programs in multiple universities, it also helps many participants find resources and build valuable networks.

Regarding the impact of individuals' tension management on universities, both-and strategies (i.e., integrate entrepreneurship resources with other internal resources) will contribute to a better integration of entrepreneurship activities with other core activities in the university. More-than strategies such as acquiring third-party resources or developing entrepreneurship activities on a larger scale will likely lead to a widened scope of entrepreneurship-related activities with a growing emphasis on benefits to the community beyond profit-making. Either-or strategies in which individuals adapt their activities to accommodate resource constraints will likely reduce the effectiveness of entrepreneurship-related activities, although this might indicate cost efficiencies on the universities' side. It should be noted that the effectiveness of certain entrepreneurship-related activities is not easy to assess due to the inherent uncertainty involved in entrepreneurship. Interviewees are divided in terms of performance measures they would prefer. While some interviewees think that the number of start-ups created, number of paying customers or jobs created can be used as performance metrics for entrepreneurship-related activities, many interviewees believe that venture creation should not be the main performance objective when it comes to resource allocation because very few of the new ventures will be successful. Instead, they would prioritize learning over venture creation as performance measures for entrepreneurship-related activities in the universities. Clearly, if universities allocate resources based on revenue generation or job creation, learning effectiveness associated with entrepreneurship-related activities might be negatively affected. This is because an exclusive focus on projects with high economic potential will take away participants' opportunities to learn from failure. As commented by a professor who teaches and supports entrepreneurship, "*there are big differences in the quality and the outcome of incubators. I think universities are going to be under a lot of pressure to be more efficient as governments increasingly focus on job creation and employment*."

In sum, individuals' tension experience varied by their employment status (i.e., academic/non-academic; pre-tenure/tenure; employee/manager) and the type of entrepreneurship-related activities they engaged (i.e., teaching, commercialization, entrepreneurship support). Consequently, these two factors also tend to shape individuals' choice of tension management strategies (see Table 4-5).

Table 4-5

Individual Strategies for Managing the Reward and Resource Tension

Strategies used to manage the reward tension		**Strategies used to manage the resource tension**	
Either-or: Ignoring the tension and continuing with entrepreneurship activities (academic staff) *"I still do what I am doing because I love doing what I am doing, although I am not rewarded in any sense for that academically. I have my own personal rewards. (Associate professor who teaches and supports entrepreneurship)*	Tenured professors and those with helpers are likely to use this strategy	**Either-or: living with resource constraints** *I said I will do it, but it is not optimum at all. This is not the way to teach entrepreneurship (A professor who was forced to teach a big class on entrepreneurship)*	This strategy was observed among individuals who teach entrepreneurship
Either-or: withdrawing from the tension and leaving the position "(*Non-academic staff) do not stay because the university pays them part time, or it does not pay them well enough. "(A professor who founded an incubator)*	This strategy was observed among non-academic employees	**Both-and: integrating with existing resources** "*Our approach is trying to hit two or three birds with one stone. We attracted funding from the federal government, which is related to economic development, we also got money from Mitacs which is related to student training. We will commercialize 5 technologies and train 200 graduate students." (a director of the innovation center)*	This strategy was observed among individuals who support entrepreneurship
Both-and: Balancing entrepreneurship workload through selective engagement *"I have a cofounder; she does a lot of stuff and we have been playing with things. That is because I just do not have the time right now to really put into the company." (An assistant professor who has her own company)*	Academic staff used this strategy through applying for course release or leave of absence or delegating some work to helpers	**More-than: acquiring third-party resources** *"We had private sector funding and they could not touch it. We had private sector space. They could not touch it. We paid for everything ourselves so they could not stop us. That was the solution to most of the problems." (A professor who founded an entrepreneurship program)*	This strategy was used by individuals who practice commercialization and those who support entrepreneurship

Strategies used to manage the reward tension		Strategies used to manage the resource tension	
	Non-academic staff used this strategy through selectively engage in less complex projects	**More-than: attracting resources as a group** "*Instead of me looking for resources for my own faculty members, I am trying to find the right resources to serve many people. We went to many universities and told them we know all these universities have the same resource issue and let us support each other." (a director of the innovation center)*	This strategy was observed among individuals who support entrepreneurship

Discussion

In this section, we discuss how our findings add to existing research on the entrepreneurial university and tension management, and to the practice of entrepreneurship within the university.

Contribution to the Literature on Entrepreneurial University

Research on entrepreneurial university has been growing in recent years (Compagnucci & Spigarelli, 2020; Feola et al., 2021; Klofsten et al., 2019). While many studies identify an underlying incongruity between entrepreneurship and academic activities (Gianiodis et al., 2016; Philpott et al., 2011), some studies also find that these two can be complementary. On one hand, entrepreneurship provides access to new sources of funding for researchers (Lam, 2011; Berbegal-Mirabent et al., 2018). On the other hand, high quality research enhances the probability of commercialization (Gómez Gras et al., 2008). The contradictory yet interdependent relationship between entrepreneurship-related activities and academic activities underscores the importance of a tension lens in studying the entrepreneurial university. However, to date, this lens has not been used as a theoretical framework in entrepreneurial university research (Cerver Romero et al., 2021). We argue that a tension lens that focuses on how this underlying relationship manifests in the university context and how individuals, teams, or organizations (including universities and other key stakeholders) experience and manage various associated tensions is useful for understanding different pathways to entrepreneurial university. This is because, although the tension between entrepreneurship and academic activities seems common across the universities, how actors experience and respond to this underlying tension might vary depending on the context in which the tension is embedded (e.g., European model versus US model, see Etzkowitz, 2003; top-down versus bottom-up policies, see Goldfarb & Henrekson, 2003). Tension management behaviour inevitably influences the co-evolution of the old and the new paradigms, which in turn shapes the pathway to the entrepreneurial university.

Adopting concepts from contingency, paradox, and dialectic theories in relation to tension management, this study explores what and how individuals are doing to support entrepreneurship on campus and the tensions that they experience in doing so. A tension lens at the individual-university interface fills an important gap in our knowledge of the entrepreneurial university construct, which has been mainly focused on what and how the society or universities should be doing to facilitate the transformation developed (Hytti, 2021; Sarpong et al., 2017). Unlike the traditional principal-agent model which examines individual-university interactions in a top-down manner (Staniulyte, 2021), this paper provides a bottom-up perspective on how universities' entrepreneurship-related activities are viewed and shaped by individuals at the front-line who teach, practice and support entrepreneurship. We argue that a bottom-up perspective is important for gaining knowledge of, and insight into, how individuals respond to the transition toward entrepreneurial university. This is not only because entrepreneurship can be individually driven (Philpott et al., 2011), but also because a bottom-up approach has been found to be more effective in stimulating entrepreneurship-related activities (Goldfarb & Henrekson, 2003).

Contribution to the Literature on Tension Management

This study identifies several bottom-up tension management strategies used by individuals. These findings contribute to the tension management literature that is often oriented towards organizational level analyses (Smith & Lewis, 2011; Schad et al., 2016). Moreover, the notion of 'bottom-up' suggests specific power relations. Our findings show that although, in theory, power relations influence the selection of tension management strategies, in practice, tension management behavior can also change power relations.

The contingency perspective does not make explicit assumptions about power relations. Either-or strategies - described by the contingency perspective - such as ignoring the reward tension and adapting and living with resource constraints, reflect individuals' decisions to either resist or accept power relations with the university. The power relations themselves may not affect one's ability to carry out either-or strategies. However, the downside of either-or strategies is that individuals who are in subordinate positions must relinquish some things (e.g., rewards, position) in exchange for other things (e.g., entrepreneurship engagement). We observed that those faculty who have obtained tenure, and non-managerial level non-academic employees with little career progression opportunities are likely to choose these either-or strategies because the opportunity cost of giving up rewards or their position is relatively low for them.

The paradox perspective assumes a symmetric power relation between actors. While this seems to contradict the scenario in which the university has more legitimate power over individual employees, we argue that individuals can still pursue both-and strategies by acquiring power and changing the unequal power relations through mutual interactions. Both-and strategies such as balancing the workload through interacting with the university's existing policies is a good example. These policies entitle individuals to course releases or leaves of absence. Entitlement has been conceptualized as a right, and implies reciprocity (i.e., "working for something entitles a person to receive something in return," see Naumann et al., 2002, p. 91). Similarly, when individuals balance their workload through selective engagement in entrepreneurship-related activities, a certain level of job autonomy is implied. Job autonomy involves "exercising authority, power, and decision-making by employee within a control of his/her own" (Khoshnaw & Alavi, 2020, p. 606). In this sense, the bottom-up scenario does not always implicate asymmetric power relation and power relations can change through both-and tension management. This finding suggests that power relations are established through mutual interaction and "acceptance by social actors of the legitimacy of power over them does not imply that they cannot attempt to moderate its effect" (Barbalet, 1985, p.531).

The dialectic perspective assumes that actors resist tensions in an asymmetric power relation and more-than strategies are often employed in such situations. Interestingly, more-than strategies are only observed in dealing with the resource tension but not the reward tension. Unlike the reward tension in which individuals can acquire power through job entitlement or job autonomy, the resource tension offers individuals fewer means to change the asymmetric power relation independently. Engaging third parties and acquiring power collaboratively through more-than strategies thus become a viable solution. More-than strategies such as acquiring third-party resources and attracting resources as a group all involve a joint willingness and coordinated effort in a shared pursuit of collective power, a form of power that is produced through coordinated efforts among collective agents (Castelfranchi, 2003). As observed, the selection of more-than strategies in dealing with the resource tension is influenced by asymmetric power relations, but the implementation of these strategies will likely change power relations (i.e., individuals acquire collective power through engaging third parties) and the associated outcome (i.e., more resources are acquired).

Implication for Practice

This paper offers practical implications for both individuals and universities. For individuals, our findings highlight the dynamic nature of power relations and provides individuals with bottom-up tension management strategies to manage entrepreneurial-related activities in universities. Our findings also help individuals recognize the influence of employment status and the type of entrepreneurship-related activities on the selection of different tension management strategies. This should help individuals adapt their tension management strategies according to their specific roles and responsibilities.

For universities, our study demonstrates that when individuals balance extra workload through selective engagement, the absence of appropriately aligned rewards might disincentivize individuals from engaging in complex and time-consuming entrepreneurship-related activities. In other words, individuals might limit their efforts to low hanging fruits. This finding might partially explain why many interviewed faculty entrepreneurs felt that they were less supported by their university compared to student entrepreneurs. This is because, compared to faculty entrepreneurship, student entrepreneurship requires less engagement with external stakeholders and does not require extensive financial or time investments (Wakkee et al., 2019). This finding suggests that universities might consider project specific rewards, especially for those complex commercialization projects involving multiple universities and external stakeholders. Project specific rewards would also help address the high uncertainty and risks associated with innovative research, which play a vital role in influencing entrepreneurship-related activities in universities (Staniulyte, 2021).

Our study also finds that the universities' goal of achieving resource efficiency might negatively influence the effectiveness of entrepreneurship-related activities, especially when the effectiveness is measured by the achievement of learning. Interviewees' divergent views on whether economic measures should be prioritized over learning objectives suggest that it is important for universities to balance efficiency and effectiveness and take both economic and learning objectives into account in performance evaluation. This implication is in line with recent work by Walshok & Shapiro (2014), who propose that a comprehensive framework for capturing an entrepreneurial university's true value to society should encompass indicators related to technology transfer, university culture, commercialization support, talent development, and diverse engagement. Given the larger scale and widened scope of entrepreneurship-related activities observed in this study, we also have reasons to expect that some performance measures will go beyond the boundary of a specific university. Just as Etzkowitz (2016) points out, cluster-based metrics have been used to understand universities' contribution to regional innovation system, and future university ranking metrics need to be become more balanced and inclusive to facilitate the development of entrepreneurial universities.

Conclusion

The transition toward the entrepreneurial university is a complex process which involves empowering faculty, staff, and students to take risks and act entrepreneurially, and engages a wide range of external stakeholders in knowledge exchange and transfer (Gibb et al., 2013). In this study, we emphasize the importance of improving understanding of this process by taking a tension lens. We have shown how this perspective can be applied to understand how individuals manage the reward and resource tensions with the university and how their behaviours influence entrepreneurship-related activities at the university level.

We recognize that our study has limited cases and a limited number of participants. We do not intend that they can be generalized across universities, given that tension management is context dependent, as our findings have shown. However, we have provided information of the context within which our findings apply, and this can allow the reader to determine the transferability of the findings to other similar contexts (e.g., those where structured rewards clash with engagement in entrepreneurial activities and where individuals are expected to do more entrepreneurship-related activities but with fewer resources). Moreover, our study is limited to an inquiry of individuals who are employed by the university. Future research could examine the tensions experienced by student entrepreneurs. Research has shown that entrepreneurship education plays a critical role in influencing students' entrepreneurial intention and competencies (Roman & Maxim, 2017). Inappropriate syllabi and teaching methods, lack of opportunities to experiment, and lack of exposure to the 'real world' have been cited as important barriers by student entrepreneurs (Shambare, 2013). As student entrepreneurship has become a growing phenomenon on campus (Siegel & Wright 2015), understanding how students deal with tensions will better inform universities' strategic decisions associated with entrepreneurship-related activities. Last, this study is limited to two common tensions experienced by individuals in two universities. Future research might consider comparing tensions experienced by the same group of individuals (e.g., faculty) across different entrepreneurial university archetypes (Bronstein & Reihlen, 2014). Such comparison will contribute to a better understanding of the mechanisms at work behind the emergence of different entrepreneurial university archetypes.

In conclusion, we hope that the tension management framework and the analytic approach we adopted will serve as a foundation for other researchers to advance knowledge on entrepreneurial universities.

References

Abreu, M., & Grinevich, V. (2013). The nature of academic entrepreneurship in the UK: Widening the focus on entrepreneurial activities. *Research Policy*, *42*(2), 408-422.

Abreu, M., Demirel, P., Grinevich, V., & Karataş-Özkan, M. (2016). Entrepreneurial practices in research-intensive and teaching-led universities. *Small Business Economics*, *47*(3), 695-717.

Andriopoulos, C., & Lewis, M. W. (2009). Exploitation-exploration tensions and organizational ambidexterity: Managing paradoxes of innovation. *Organization Science*, *20*(4), 696-717.

Audretsch, D. B. (2014). From the entrepreneurial university to the university for the entrepreneurial society. *The Journal of Technology Transfer*, *39*(3), 313-321.

Barbalet, J. M. (1985). Power and resistance. *British Journal of Sociology*, *36* (4), 531-548.

Bakar, J. A., Mohamad, Z. Z., & Sharmeela-Banu, S. A. (2015). Factors affecting female lecturer retention in private higher institution in Perak. *International Journal of Academic Research in Business and Social Sciences*, *5*(1), 137-146.

Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, *50*(3), 329-366.

Berbegal-Mirabent, J., Gil-Doménech, D., & Alegre, I. (2018). Why would you ever want to become an academic entrepreneur? In Tur Porcar, & Ribeiro Soriano, D. (Eds.), *Inside the mind of the entrepreneur: Cognition, personality traits, intention, and gender behavior* (pp.33-45). Springer.

Bronstein, J., & Reihlen, M. (2014). Entrepreneurial university archetypes: A meta-synthesis of case study literature. *Industry and Higher Education*, *28*(4), 245-262.

Castelfranchi, C. (2003). The micro-macro constitution of power. *ProtoSociology*, *18/19*, 208-265.

Cerver Romero, E., Ferreira, J. J., & Fernandes, C. I. (2021). The multiple faces of the entrepreneurial university: A review of the prevailing theoretical approaches. *The Journal of Technology Transfer*, *46*(4), 1173-1195.

Compagnucci, L., & Spigarelli, F. (2020). The third mission of the university: A systematic literature review on potentials and constraints. *Technological Forecasting and Social Change*, *161*, 120284.

Creed, A., Heinonen, J., & Zutshi, A. (2021). Between academia and business: Research agenda for acapreneurship. In Hytti U (Ed.), *A Research agenda for the entrepreneurial university* (pp. 189–205). Edward Elgar Publishing.

Creswell, J.W., & Poth, C. (2018). *Qualitative inquiry and research design* (4th ed.). Thousand Oaks, CA: Sage Publications.

D’este, P., & Perkmann, M. (2011). Why do academics engage with industry? The entrepreneurial university and individual motivations. *The Journal of Technology Transfer*, *36*(3), 316-339.

Etzkowitz, H. (2003). The European entrepreneurial university: An alternative to the US model. *Industry and Higher Education*, *17*(5), 325-335.

Etzkowitz, H. (2004). The evolution of the entrepreneurial university. *International Journal of Technology and Globalisation*, *1*(1), 64-77.

Etzkowitz H. (2016). The Entrepreneurial university: Vision and metrics. *Industry and Higher Education*. 30(2), 83-97

Feola, R., Parente, R., & Cucino, V. (2021). The entrepreneurial university: How to develop the entrepreneurial orientation of academia. *Journal of the Knowledge Economy*, *12*(4), 1787-1808.

Fisher, G. (2012). Effectuation, causation, and bricolage: A behavioral comparison of emerging theories in entrepreneurship research. *Entrepreneurship Theory and Practice*, *36*(5), 1019-1051.

Freel, M., Persaud, A., & Chamberlin, T. (2019). Faculty ideals and universities third mission. *Technological Forecasting and Social Change*, *147*, 10-21.

Gianiodis, P. T., Markman, G. D., & Panagopoulos, A. (2016). Entrepreneurial universities and overt opportunism. *Small Business Economics*, *47*(3), 609-631.

Gibb, A., Haskins, G., & Robertson, I. (2013). Leading the entrepreneurial university: Meeting the entrepreneurial development needs of higher education institutions. In Altmann, A., & Ebersberger, B. (Eds.), *Universities in change* (pp. 9-45). Springer, New York, NY.

Gioia, D.A., K. G. Corley, and A.L. Hamilton. (2013). Seeking qualitative rigor in inductive research. *Organisational Research Methods* 16 (1), 15-31.

Göktepe-Hulten, D., & Mahagaonkar, P. (2010). Inventing and patenting activities of scientists: In the expectation of money or reputation? *The Journal of Technology Transfer*, *35*(4), 401-423.

Goldfarb, B., & Henrekson, M. (2003). Bottom-up versus top-down policies towards the commercialization of university intellectual property. *Research Policy*, *32*(4), 639-658.

Goldstein, H. A. (2010). To what extent is academic entrepreneurship taken for granted within research universities? *Higher Education Policy*, *23*(1),1-15.

Gómez Gras, J. M., Galiana Lapera, D. R., Mira Solves, I., Verdú Jover, A. J., & Sancho Azuar, J. (2008). An empirical approach to the organisational determinants of spin-off creation in European universities. *International Entrepreneurship and Management Journal*, *4*(2), 187-198.

Guerrero, M., & Urbano, D. (2012). The development of an entrepreneurial university. *The Journal of Technology Transfer*, *37*(1), 43-74.

Hargrave, T. J., and A. H. Van de Ven. (2017). Integrating dialectical and paradox perspectives on managing contradictions in organisations. *Organisation Studies,* 38 (3-4), 319-39.

Hasan, S. M., Khan, E. A., & Nabi, M. N. U. (2017). Entrepreneurial education at university level and entrepreneurship development. *Education+ Training*, 59 (7/8), 888-906

Hayter, C. S. (2015). Social networks and the success of university spin-offs: Toward an agenda for regional growth. *Economic Development Quarterly*, *29*(1), 3-13.

Hmieleski, K. M., & Powell, E. E. (2018). The psychological foundations of university science commercialization: A review of the literature and directions for future research. *Academy of Management Perspectives*, *32*(1), 43-77.

Hytti, U. (2021). Introduction: navigating the frontiers of entrepreneurial university research. In Hytti U (Ed.), *A research agenda for the entrepreneurial university* (pp. 1-6). Edward Elgar Publishing

Jain, S., George, G., & Maltarich, M. (2009). Academics or entrepreneurs? Investigating role identity modification of university scientists involved in commercialization activity. *Research Policy*, 38(6), 922-935.

Khoshnaw, S., & Alavi, H. (2020). Examining the interrelation between job autonomy and job performance: A critical literature review. *Multidisciplinary Aspects of Production Engineering*, *3*, 606-616.

Kirby, D. A., Guerrero, M., & Urbano, D. (2011). Making universities more entrepreneurial: Development of a model. *Canadian Journal of Administrative Sciences*, 28(3), 302–316.

Kirzner, I. M. (1997). Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of economic Literature*, *35*(1), 60-85.

Klofsten, M., Fayolle, A., Guerrero, M., Mian, S., Urbano, D., & Wright, M. (2019). The entrepreneurial university as driver for economic growth and social change-Key strategic challenges. *Technological Forecasting and Social Change*, *141*, 149-158.

Kumar. (2010). Ethical conflicts in commercialization of university research in the post-Bayh-Dole era. *Ethics & Behavior*, 20(5), 324–351.

Lam, A. (2011). What motivates academic scientists to engage in research commercialization: 'Gold','ribbon'or 'puzzle'? *Research Policy*, 40(10), 1354-1368.

Laredo, P. (2007). Revisiting the third mission of universities: Toward a renewed categorization of university activities? *Higher Education Policy*, *20*(4), 441-456.

Leišytė, L., & Hosch-Dayican, B. E. N. G. Ü. (2016). Boundary crossing and maintenance among UK and Dutch bioscientists: Towards hybrid identities of academic entrepreneurs. In Leišytė, L., & Wilkesmann, U. (Eds.), *Organizing academic work in higher education* (pp. 243-262). Routledge.

Limukii, K. E., Jonah, K., Mualuko, N. J., & Kakamega, K. (2014). A critique of resource allocation models for secondary schools. *International Journal of Education and Research*, *2*(8), 419-428.

Loi, M., & Di Guardo, M. C. (2015). The third mission of universities: An investigation of the espoused values. *Science and Public Policy*, *42*(6), 855-870.

Mainardes, E. W., Alves, H., & Raposo, M. (2011). The process of change in university management: From the" ivory tower" to entreprunialism. *Transylvanian Review of Administrative Sciences,* 7(33), 124-149.

Mangematin, V., O'Reilly, P., & Cunningham, J. (2014). PIs as boundary spanners, science, and market shapers. *The Journal of Technology Transfer*, *39*(1), 1-10.

Markman, G. D., Gianiodis, P. T., Phan, P. H., & Balkin, D. B. (2004). Entrepreneurship from the ivory tower: Do incentive systems matter? *The Journal of Technology Transfer*, 29(3), 353-364.

Miles, Huberman, A. M., & Saldaña, J. (2018). *Qualitative data analysis: A methods sourcebook* (4th ed.). SAGE.

Mowery, D. C., & Shane, S. (2002). Introduction to the special issue on university entrepreneurship and technology transfer. *Management Science*, *48*(1), v-ix.

Naumann, S. E., Minsky, B. D., & Sturman, M. C. (2002). A historical examination of employee entitlement. *Management Decision*. *40*(1), 89–94.

O'kane, C., Mangematin, V., Geoghegan, W., & Fitzgerald, C. (2015). University technology transfer offices: The search for identity to build legitimacy. *Research Policy*, 44(2), 421-437.

O'Kane, C., Mangematin, V., Zhang, J. A., & Cunningham, J. A. (2020). How university-based principal investigators shape a hybrid role identity. *Technological Forecasting and Social Change*, 159, 120179.

Philpott, K., Dooley, L., O'Reilly, C., & Lupton, G. (2011). The entrepreneurial university: Examining the underlying academic tensions. *Technovation*, *31*(4), 161-170.

Pustovrh, A., Rangus, K., & Drnovšek, M. (2020). The role of open innovation in developing an entrepreneurial support ecosystem. *Technological Forecasting and Social Change*, 152,119892.

Putnam, L. L., G.T. Fairhurst, and S. Banghart. (2016). Contradictions, dialectics, and paradoxes in organisations: A constitutive approach. *Academy of Management Annals* 10 (1), 65-171.

Ritala, P., Huizingh, E., Almpanopoulou, A., & Wijbenga, P. (2017). Tensions in R&D networks: Implications for knowledge search and integration. *Technological Forecasting and Social Change*, 120, 311-322.

Roman, T., & Maxim, A. (2017). National culture and higher education as pre-determining factors of student entrepreneurship. *Studies in Higher Education*, *42*(6), 993-1014.

Rubins, I. (2007). Risks and rewards of academic capitalism and the effects of presidential leadership in the entrepreneurial university. *Perspectives in Public Affairs*, *4*(4), 3-18.

Sarpong, D., AbdRazak, A., Alexander, E., & Meissner, D. (2017). Organizing practices of university, industry and government that facilitate (or impede) the transition to a hybrid triple helix model of innovation. *Technological Forecasting and Social Change*, *123*, 142-152.

Schad, J., Lewis, M. W., Raisch, S., & Smith, W. K. (2016). Paradox research in management science: Looking back to move forward. *Academy of Management Annals*, *10*(1), 5-64.

Shambare, R. (2013). Barriers to student entrepreneurship in South Africa. *Journal of Economics and Behavioral Studies*, *5*(7), 449-459.

Sharma, R. (2004). Performance-based funding in the entrepreneurial North American and Australian universities. *Journal of Higher Education Policy and Management*, *26*(1), 109–118

Siegel, D. S., Waldman, D., & Link, A. (2003). Assessing the impact of organizational practices on the relative productivity of university technology transfer offices: An exploratory study. *Research Policy*, 32(1), 27-48.

Siegel, D. S., & Wright, M. (2015). Academic entrepreneurship: Time for a rethink? *British Journal of Management*, 26(4), 582-595.

Smith, W.K., and M. W. Lewis. (2011). Toward a theory of paradox: A dynamic equilibrium of organizing. *Academy of Management Review,* 36 (2), 381-403.

Smith, W.K, Erez, M., Jarvenpaa, S., Lewis, M. W., and Tracey, P. (2017). Adding complexity to theories of paradox, tensions, and dualities of innovation and change: Introduction to organisation studies special issue on paradox, tensions, and dualities of innovation and change. *Organisation Studies, 38*(3-4), 303-317.

Sotirakou, T. (2004). Coping with conflict within the entrepreneurial University: Threat or challenge for heads of departments in the UK higher education context. *International Review of Administrative Sciences*, *70*(2), 345-372.

Staniulyte, J. (2021). Towards the entrepreneurial university: The principal-agent problem. *Quality & Quantity*, 1-18.

Tartari, V., Perkmann, M., & Salter, A. (2014). In good company: The influence of peers on industry engagement by academic scientists. *Research Policy*, *43*(7), 1189-1203.

Thomas, K. W. (1992). Conflict and conflict management: Reflections and update. *Journal of Organisational Behaviour,* 13 (3), 265-74.

Todorovic, W. Z., McNaughton, R. B., & Guild, P. D. (2005). Making university departments more entrepreneurial: The perspective from within. *The International Journal of Entrepreneurship and Innovation*, *6*(2), 115-122.

Tuunainen, J. (2005). Contesting a hybrid firm at a traditional university. *Social Studies of Science*, *35*(2), 173-210.

Vestergaard, J. (2007). The entrepreneurial university revisited: Conflicts and the importance of role separation. *Social Epistemology*, *21*(1), 41-54.

Walshok, & Shapiro, J. D. (2014). Beyond tech transfer: A more comprehensive approach to measuring the entrepreneurial university. In Corbett, A. C., Katz, J. A., & Siegal, D. S. (Eds.) *Academic entrepreneurship: Creating an entrepreneurial ecosystem* (pp. 1–36). Emerald Group Publishing Limited.

Wakkee, I., van der Sijde, P., Vaupell, C., & Ghuman, K. (2019). The university's role in sustainable development: Activating entrepreneurial scholars as agents of change. *Technological Forecasting and Social Change*, *141*,195-205.

Wang, M., Soetanto, D., Cai, J., & Munir, H. (2022). Scientist or entrepreneur? Identity centrality, university entrepreneurial mission, and academic entrepreneurial intention. *The Journal of Technology Transfer*, *47*, 119-146. doi: https://doi.org/10.1007/s10961-021-09845-6

Yordanova, D., & Filipe, J. A. (2019). Towards entrepreneurial universities: Barriers, facilitators, and best practices in Bulgarian and Portuguese universities. *International Journal of Economics & Business Administration*, *7*(4): 213-227.

Yi, G. (2021). From green entrepreneurial intentions to green entrepreneurial behaviors: The role of university entrepreneurial support and external institutional support. *International Entrepreneurship and Management Journal,* 17(2), 963-979.

Chapter 5

Discussion and Conclusion

Building on the tension and conflict literatures and drawing upon three theoretical perspectives (contingency, paradox, and dialectic), this dissertation explores how multiple theoretical perspectives can be triangulated to gain deeper insights into tension and conflict management and provide new research opportunities for both tension studies and conflict research.

This concluding chapter reflects upon the key findings and contributions of the three essays as they relate to the overarching research aim and question presented in chapter 1. Additionally, this chapter identifies limitations as well as opportunities for future research.

Similarities and Differences across Three Contexts

When comparing findings across the three contexts, the following similarities are observed: First, all three contexts have asymmetric power relations. In family businesses, this is evidenced by the existence of a dominant coalition, which is a key characteristic in defining family business. In the public innovation case, asymmetric power relation is evidenced by the control-resistance tension between the innovation team and the government. In entrepreneurial universities, unequal power relations are evident in the employee-university relationship as the university has legitimate power over its employees. According to the dialectic theory, more-than strategies will be used in a context with asymmetric power relations. However, the findings from three studies clearly point out that either-or and both-and strategies are also used. This is likely due to three reasons. One reason is that asymmetric power relations might not always present in a specific conflict or tension context, and this makes the selection of either-or and both-and strategies possible. Moreover, asymmetric power relations do not prevent actors from deploying either-or strategies. Actors who accept or resist existing power relations can simply pursue an either-or strategy (e.g., leaving the university to resist existing power relations, or teaching a big entrepreneurship class as a way to accept existing power relations). Finally, actors can acquire power in certain tension contexts (e.g., through job entitlement or autonomy in the reward tension). This makes both-and strategies possible even though power was not equally distributed in the first place.

Second, all three contexts are characterized by hybrid logics or values. Such hybridity was not deliberately selected but resulted serendipitously. In family businesses, the combination of family and business logics (Börje & Nordqvist, 2020) has existed for centuries (Colli & Rose, 2008). Governments and universities have been considered as pluralistic organizations that have multiple objectives and diffused power structures (Jarzabkowski & Fenton, 2006). In this sense, hybrid organizing is not new for these organizations. However, the cases studied illustrate some non-conventional combination of organizational elements and this is likely why tensions are observed in these contexts. For example, the public innovation case represents an effort to combine traditional public sector hierarchies with a new network governance approach that features horizontal decision-making through partnerships and networks that involve a wide range of stakeholders (Gestel et al., 2020; Keast, 2022). The growing emphasis on universities' economic roles also renders a combination of academic and business values more salient in entrepreneurial universities. Some scholars have suggested that hybridity should not be considered as a type of organization but rather as a matter of degree (Battilana et al., 2017). In line with this thinking, strong hybridity often implies greater potential for tensions to arise.

There are also differences across the three contexts. Family businesses are private organizations with the scope for abundant relationship conflicts. Governments and universities are public in nature and most tensions examined in these two contexts in this dissertation are induced by changes or innovations. Also, in terms of hybrid organizing, family businesses mainly deal with two competing logics (i.e., family and business) while governments and universities, as mentioned earlier, have to deal with multiple logics or values. Yet the findings from this dissertation suggest that despite different forms of organizing and various levels of complexity in tensions or conflicts, the strategies for managing different tensions or conflicts can be captured by the three theoretical perspectives presented.

However, we must also be conscious of these differences when evaluating the transferability of findings to other contexts. For example, findings about family businesses might be transferable to contexts in which relationship conflicts are prevalent. Findings from the public innovation case might be transferable to contexts in which changes are made in an environment with a high level of formalization and with legitimate competing interests of different constituencies. Findings from entrepreneurial universities might be transferable to contexts in which bottom-up changes are made despite a lack of incentives and scarce resources. In short, as the three studies have shown, the selection of tension or conflict management strategies is dependent upon organizational characteristics, opposing parties' reactions, as well as individuals' personal circumstances such as employment status. Understanding these contextual details can help advance our knowledge of tension or conflict management.

Contributions to the Literature

This dissertation illustrates the value in using theoretical triangulation and adopting a multi-perspective framework to analyze both tension and conflict management.

First, this dissertation contributes to the contingency theory by unravelling how organizational context influences the selection of conflict management strategies. To this end, the study of family businesses illustrates that the attractiveness of certain conflict management strategies (i.e., vacillation, domination, separation, and third-party intervention) is influenced by the unique characteristics of family businesses, including high emotional attachment among family members, enduring family relationships, and the long-term orientation of family businesses. This study thus complements the current conflict management literature, which often emphasises how individual factors such as personality, gender and organizational status influence the selection of conflict management strategies (Antonioni, 1998; Brewer et al., 2002).

Second, this dissertation contributes to paradox and dialectic theories by identifying temporal patterns of tension management strategies for a 'control-resistance' and 'competing interests tension'. The study of public innovation reveals that it is through surfacing and managing these two tensions that the innovation team was able to realize the constructive potential of tensions and co-create and/or co-define the added public value during the diffusion process. Tension management strategies often evolve from simple either-or strategies to complex both-and and more-than strategies through a mechanism of joint learning. The identified patterns provide a pathway to realize the constructive potential of tensions in the innovation process. This study advances our understandings of tension dynamics because previous research in this area is limited to the study of how either-or and both-and strategies can be used to achieve a dynamic equilibrium state (Smith & Lewis, 2011) or lead to dynamic disequilibrium (Sheep et al., 2017). This dissertation broadens the scope of tension management strategies by incorporating the dialectic perspective and the more-than strategies.

Third, the dissertation shows that a critical assumption of paradox and dialectic theories on power distribution needs to be viewed through a dynamic lens. The study of entrepreneurial universities demonstrates that power relations may influence but also be influenced by tension management strategies. In a context with an asymmetric power distribution, such as employee-organization relations, individual employees can acquire power through job entitlement or autonomy. The acquired power will alter power relations and allow individuals to pursue both-and strategies. When power cannot be acquired independently, individuals may pursue more-than strategies, which involve acquiring power through engaging third parties. The dynamics of power relations underscore the importance of adopting a multi-perspective theoretical framework in analyzing tension and conflict management.

Overall, this dissertation has generated new knowledge regarding tension and conflict management in relation to temporal patterns, the influence of organizational contexts and dynamic power relations.

Contributions to Practice

By triangulating the findings from contingency, paradox and dialectic perspectives, this dissertation offers a number of implications for managing tensions and conflicts in practice.

First, the dissertation highlights the importance of adapting tension and conflict management strategies according to the changing contexts. The study on family businesses finds that each conflict management strategy has its pros and cons, and the effective use of these strategies must take the characteristics of conflicts and the contexts in which they are embedded into consideration. For example, avoidance - a strategy that does not address the root causes - can be a practical solution for low-intensity conflicts between family and nonfamily members. This strategy can also be an effective strategy to allow people to cool down and find the appropriate long-term strategy and/or wait for the right moment to act (Fahed-Sreih, 2018).

Second, the dissertation offers a viable path for realizing the constructive potential of tensions in public innovation. The study on public innovation reveals that tension management strategies often evolve from simple to complex through a mechanism of joint learning in an innovation diffusion process. Simple strategies are easy to implement and usually short-term focused. Simple strategies such as circumventing existing rules are effective in activating tensions from a latent state, and this is the first step for addressing tensions collaboratively. Complex strategies usually take more time to develop and are often long-term oriented. The terms “simple” and “complex” denote not only differences in strategy implementation costs, but also in time horizons. A better understanding of the benefits and limitations of short-term and long-term strategies provides a basis for selecting and combining a number of appropriate strategies to generate novel solutions.

Third, this dissertation provides several strategies that individuals can use to manage tensions with the organization and drive changes from the bottom-up. The study about entrepreneurial university identifies several bottom-up tension management strategies used by entrepreneurial employees within the universities. The study also identifies what conditions (e.g., employment status, types of entrepreneurship-related activities) are associated with the use of either-or, both-and and more-than strategies. This knowledge is useful for entrepreneurial individuals who would like to initiate changes but experience similar reward and resource tensions within a university.

Limitations and Areas for Future Research

There are a number of limitations and future directions associated with this dissertation.

First, the research attends to tension and conflict management, thus the overriding research questions and the interview protocols that we used with participants focus on the presence of tensions or conflicts. In other words, the absence of tensions or conflicts are not explored in this dissertation. Absence might not mean there are no tensions or conflicts; it could potentially indicate that people are not consciously aware of tensions, or conflicts are so well managed proactively that no one senses their existence. Future research that complements the findings of this dissertation could focus on preventive strategies. Preventive strategies are important because tensions are often considered as inherent within organizations and can lead to potential conflicts (Smith & Lewis, 2011). Future research might consider using longitudinal design, observations, or other means to examine the mechanisms or strategies that keep tensions latent or lead to the absence of conflicts.

Second, due to resource limitations and access barriers, this dissertation only contains one longitudinal case study that focuses on tension management. The research has limited evidence regarding the mechanisms that underlie evolution from tension to conflict and how tensions and conflicts co-evolve within an organization. Future studies might consider incorporating both tensions and conflicts in further longitudinal studies to better understand their recursive influences. In particular, attention can be paid to how participants make sense of both tensions and conflicts in the same organizational context, given that tensions and conflicts are often interwoven and co-exist in an organization. Such empirical studies will contribute to the development of a conceptual model that theorizes tension and conflict management process by integrating the contingency, paradox and dialectic perspectives presented in this dissertation. Some scholars have started to move into this direction on the theoretical front. For example, Hargrave & Van de Ven (2017) propose an integrated model of paradox and dialectic perspectives. Cunha et al. (2019) argue that paradox and contingency theories could be synthesized to "a contingency-informed theory of paradox" (p.703).

Third, given the focus on tension or conflict management, this dissertation did not explore the relationship between tension or conflict management and hybrid organizing. This is an interesting avenue for future research given the growing consensus that there is a need to categorize hybrid organizations along their degree of hybridity (Schmitz & Glänzel, 2016). Empirical studies on innovations in hybrid organizations tend to suggest that how hybrid organizations manage tensions plays an important role in realizing their innovative potential (Jay,2013; Battilana & Dorado,2010). Future research might compare tension or conflict management across organizations with high and low degrees of hybridity to better understand how hybridity influences the manifestation of tensions or conflicts and how tension or conflict management influence the way that competing organizational elements are combined in hybrid organizations.

Conclusion

This dissertation presents a starting point for theorizing tension and conflict management within organizations. By using theoretical triangulation and a multi-perspective framework to analyze tension and conflict management strategies in three organizational contexts, this research lays the groundwork for future studies to deepen understanding of tension and conflict dynamics within organizations. Organizations' survival and growth are increasingly dependent on their ability to manage divergent interests and goals and to implement change and innovation, and such processes often evoke tensions and conflicts. I hope this work will stimulate growing scholarly interests in tension and conflict management in organizations.

References

Antonioni, D. (1998). Relationship between the big five personality factors and conflict management styles. *International Journal of Conflict Management*, *9*(4), 336.

Battilana, J., & Dorado, S. (2010). Building sustainable hybrid organizations: The case of commercial microfinance organizations. *Academy of Management Journal*, *53*(6), 1419-1440.

Bernier, L., & Hafsi, T. (2007). The changing nature of public entrepreneurship. *Public Administration Review*, *67*(3), 488-503.

Börje, B., & Nordqvist, M. (2020). Family businesses as hybrid organisations. In Billis, & Rochester, C. (Eds.) *Handbook on hybrid organisation* (pp. 507-521). Edward Elgar Publishing.

Brewer, N., Mitchell, P., & Weber, N. (2002). Gender role, organizational status, and conflict management styles. *International Journal of Conflict Management*, *13*(1), 78-78

Butler, J. (2017). Academic freedom and the critical task of the university. *Globalizations*, *14*(6), 857-861.

Colli, A., & Rose, M. (2008). Family business. In Jones, & Zeitlin, J. (Eds.) *Oxford handbook of business history*, (pp.194-218), Oxford University Press.

Cunha, M. P. E., Fortes, A., Gomes, E., Rego, A., & Rodrigues, F. (2019). Ambidextrous leadership, paradox and contingency: evidence from Angola. *The International Journal of Human Resource Management*, 30(4), 702-727.

Curry, A., Stark, S., & Summerhill, L. (1999). Patient and stakeholder consultation in healthcare. *Managing Service Quality*, *9*(5), 327-336.

Fahed-Sreih, J. (2018). *Conflict in family businesses: Conflict, models, and practices*. Cham, Switzerland: Springer

Hartgerink, J. M., Cramm, J. M., Bakker, T. J. E. M., Van Eijsden, A. M., Mackenbach, J. P., & Nieboer, A. P. (2014). The importance of multidisciplinary teamwork and team climate for relational coordination among teams delivering care to older patients. *Journal of Advanced Nursing*, *70*(4), 791-799.

Hargrave, T. J., & Van de Ven, A. H. (2017). Integrating dialectical and paradox perspectives on managing contradictions in organizations. *Organization Studies*, *38*(3-4), 319-339.

Jarzabkowski, P., & Fenton, E. (2006). Strategizing and organizing in pluralistic contexts. *Long Range Planning*, *39*(6), 631-648.

Jay, J. (2013). Navigating paradox as a mechanism of change and innovation in hybrid organizations. *Academy of Management Journal*, *56*(1), 137-159.

Perry, J. L., & Rainey, H. G. (1988). The public-private distinction in organization theory: A critique and research strategy. *Academy of Management Review*, *13*(2), 182-201.

Reay, T., & Hinings, C. R. (2009). Managing the rivalry of competing institutional logics. *Organization Studies*, *30*(6), 629-652.

Schmitz, B., & Glänzel, G. (2016). Hybrid organizations: concept and measurement. *International Journal of Organizational Analysis*, *24*(1), 18-35.

Sheep, M. L., Fairhurst, G. T., & Khazanchi, S. (2017). Knots in the discourse of innovation: Investigating multiple tensions in a reacquired spin-off. *Organization Studies*, *38*(3-4), 463-488.

Smith, W. K., Erez, M., Jarvenpaa, S., Lewis, M. W., & Tracey, P. (2017). Adding complexity to theories of paradox, tensions, and dualities of innovation and change: Introduction to organization studies special issue on paradox, tensions, and dualities of innovation and change. *Organization Studies*, *38*(3-4), 303-317.

Smith, W. K. (2014). Dynamic decision making: A model of senior leaders managing strategic paradoxes. *Academy of Management Journal*, *57*(6), 1592-1623.

Smith, W. K., & Lewis, M. W. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of Management Review*, *36*(2), 381-403.

Waldinger, R. (1993). Reply to Bonacich: The two sides of ethnic entrepreneurship. *International Migration Review*, *27*(3), 692-701.