

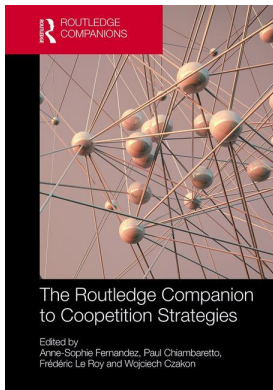
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Theoretical perspectives of coopetition

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Theoretical perspectives of coopetition

Review and integration

Tadhg Ryan Charleton, Devi R. Gnyawali, and Robert J. Galavan

Introduction

Coopetition—simultaneous competition and cooperation among firms—has emerged as an important phenomenon within strategic management (Ansari, Garud, & Kumaraswamy, 2015; Bengtsson & Kock, 2000; Gnyawali, He, & Madhavan, 2006). It has garnered great interest in high-technology sectors where high R&D costs, rapid innovation, and short product life cycles (Gnyawali & Park, 2011) push firms to simultaneously pursue the benefits associated with competition (e.g., pressure to innovate) and those of cooperation (e.g., resource access) (Bengtsson & Kock, 2000; Gnyawali, Madhavan, He, & Bengtsson, 2016; Lado, Boyd, & Hanlon, 1997). Scholarly research on the topic has grown substantially and researchers have used various theories to examine the coopetition phenomenon. Two critical challenges have emerged with growth in the literature. First, wide variation in how and when theories are used (e.g., Bengtsson, Raza-Ullah, & Vanyushyn, 2016; Gnyawali & Park, 2009; Gnyawali & Song, 2016; Quintana-García & Benavides-Velasco, 2004; Ritala & Hurmelinna-Laukkanen, 2009) has led to the fragmentation of explanations stemming from fundamentally different assumptions. As different theories focus on different aspects of the phenomenon, they have resulted in different hypotheses and contributed different, sometimes conflicting, insights to the coopetition literature. Second, fragmented use of different theories has led to incomplete insights that have inhibited the development of deeper understanding and novel explanations. The integration of explanations from multiple theories would likely help to develop richer insights.

Our chapter makes advancements in both regards. First, we lay out the current state of the literature concerning how important theoretical perspectives are used to explain coopetition. This is significant in two ways: it outlines the role of particular theories in explaining the phenomenon and helps researchers to develop a more rounded understanding of coopetition by building on the totality of explanations. Second, we illustrate how integrative efforts that draw from multiple theories can provide a deeper and more systematic understanding of coopetition. After illustrating the complementary role that two theoretical perspectives can play, we highlight potential benefits of more extensive integration. Taking the major concerns of transaction cost economics regarding coopetition as an example, we identify novel contingencies and explanations that emerge when insights from four other important perspectives are integrated.

Accordingly, we chart a path for future researchers to uncover novel, fine-grained explanations by integrating multiple theories.

Theoretical perspectives

“Theory is the answer to queries of why” (Sutton & Staw, 1995: 378) and good theory is important because it facilitates explanation (Whetten, 2009). Utilized appropriately, theory may delve into underlying processes to uncover fine-grained explanations and causal nuances as to why a phenomenon occurs in the way it does. In an emergent field like coopetition, theories are significant because they create bridges with existing research in other areas, thereby enhancing understanding of a phenomenon we know relatively little about.

Several theories have achieved prominence in strategic management for their ability to explain different aspects of firm behavior and performance. We focus on five that are relevant in explaining coopetition behavior and performance: the resource-based view, transaction cost economics, inter-firm network theory, game theory, and paradox theory. Figure 2.1 lays out key insights from each theory and summarizes novel explanations that emerge from their combination. The resource-based view and transaction cost perspectives illuminate factors that motivate firm-level behaviors, emphasizing value creation and cost minimization respectively. Inter-firm network theory offers a high-level perspective of how firms access advantages by working with one another. Game theory highlights how value can be created, divided, and potentially damaged when firms interact. Paradox theory illustrates how coopetition generates tensions through the concurrent and opposing forces of competition and cooperation. We begin with a brief description of the core ideas of each theory and then outline how they have been used in coopetition research. We proceed to illustrate how rich insights and novel explanations can emerge when multiple theories are integrated. The boxes in Figure 2.1 outline key points derived from individual perspectives while the linking statements highlight some opportunities for perspectives to be integrated.

The resource-based view

The resource-based view (RBV) assumes that differences in firm performance can be attributed to resource bundles. Superior performance is achieved when firms control rare, valuable, inimitable, and non-substitutable resources (Barney, 1991) that are heterogeneously distributed and not easily tradeable (Dierickx & Cool, 1989; Wernerfelt, 1984). When resource-based concerns lead firms to form partnerships, they are more likely to focus on resources that are strategically relevant (Das & Teng, 2000; Gulati, Lavie, & Madhavan 2011).

Competitors may possess highly relevant resources because they target similar customers and confront similar challenges (Dussauge, Garrette, & Mitchell, 2000; Gnyawali & Park, 2009:2011; Ritala & Hurmelinna-Laukkanen, 2009). Coopetition can therefore provide access to relevant and complementary resources (Bengtsson, Eriksson, & Wincent, 2010) and reduce the time and costs associated with internal development (Gnyawali & Park, 2009). Competitors can also combine homogeneous resources to achieve major projects that are risky to pursue alone (Garrette, Castañer, & Dussauge, 2009), economies of scale, or other cost-sharing objectives. If firms compete based on homogeneous resources, coopetition can protect them from other competitors or serve as a means by which the combined resource pool can be grown (Ingram & Qingyuan, 2008).

Their similarities mean that competitors also exhibit overlapping dominant logics, which suggests that potential exists for high relative absorptive capacity (e.g., Cohen & Levinthal, 1990;

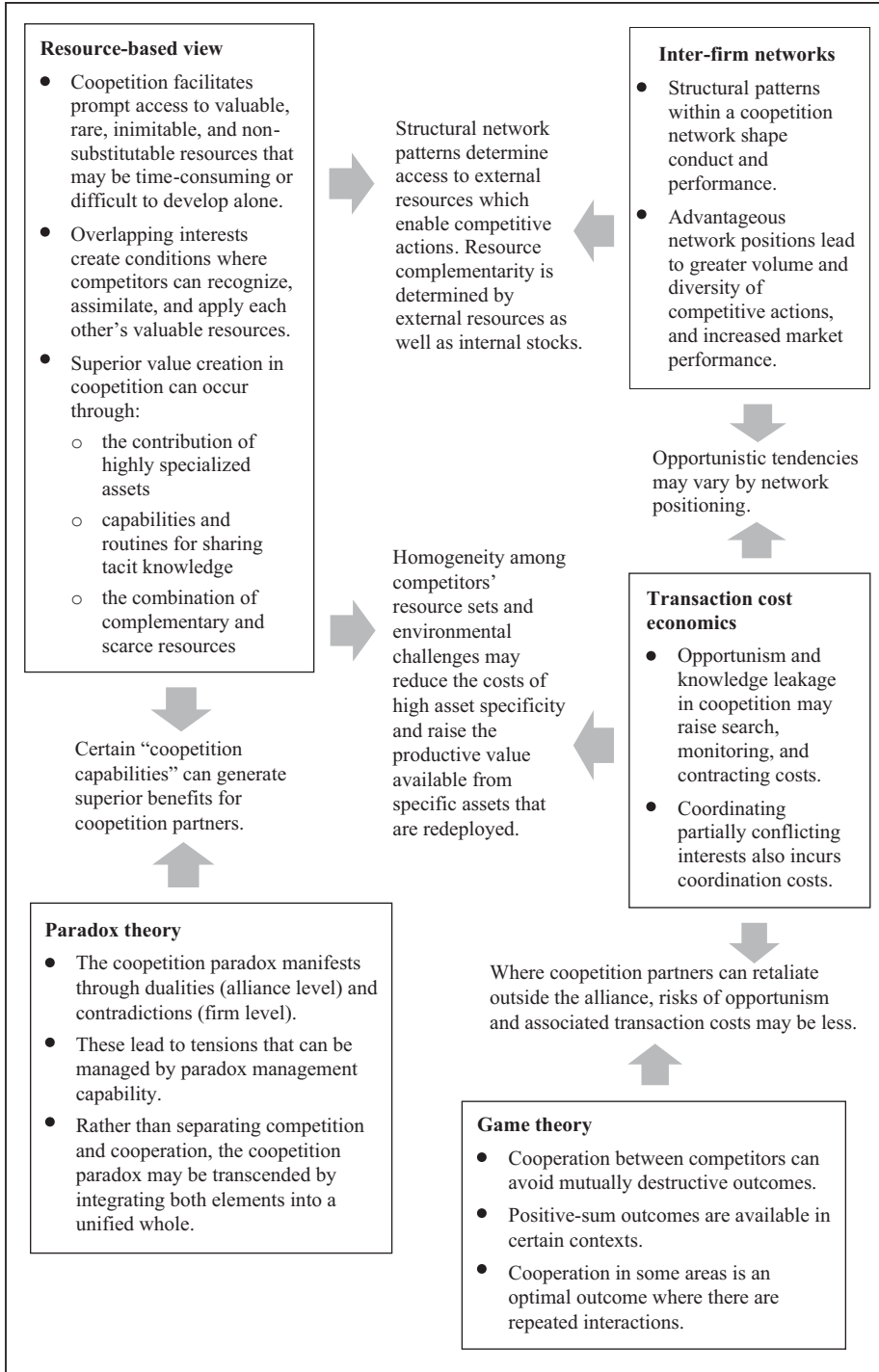


Figure 2.1 Theoretical perspectives of cooperation

Lane & Lubatkin, 1998). Absorptive capacity is often beneficial—it enables partners to identify, assimilate, and apply each other’s new and valuable knowledge (Dussauge et al., 2000; Gnyawali & Park, 2009) and reduces associated learning barriers (Alvarez & Busenitz, 2001). This aids collaboration by facilitating tacit knowledge transfer, fueling rapid learning, and preserving causal ambiguity vis-à-vis firms outside the partnership. However, it also enables the capture and re-deployment of spillover knowledge and other resources. When absorptive capacity creates conditions for partners to misappropriate each other’s resources, it can lead to suspicion and hostility in ways that are ultimately damaging to performance.

Transaction cost economics

Transaction cost economics (TCE) focuses on minimizing exchange costs by identifying the most efficient organizing form (Williamson, 1975, 1985). By analyzing how exchange attributes influence costs, TCE facilitates distinctions between activities that are most efficiently conducted within firm boundaries and those which are not (Teece, 1985). This has traditionally been defined as a dichotomous “make or buy” decision point. However, in response to industry developments, inter-firm cooperation has emerged as a hybrid governance form that sits between markets and internal hierarchies (Williamson, 1979, 1991). Hybrids balance the benefits of coordination offered by hierarchies with the greater incentive intensity offered by markets, while compromising the costs of bureaucracy (hierarchies) with those of controlling opportunism (markets) (Williamson, 1991). Inter-firm cooperation thus extends the traditional “make or buy” dichotomy to “make, buy, or ally.”

When TCE is used to explain cooperation in the literature, the main focus is on increased costs that may emerge (Kogut, 1989; Park & Russo, 1996; Park & Ungson, 2001). From a TCE perspective, self-interest permeates all aspects of the analysis and supplants potential for joint or dyad-level congruencies. It is therefore argued that competitors’ individualistic motivations bring higher risks of opportunism, while their relative absorptive capabilities increase the potency of such behaviors. As a result, firms must assume increased transaction safeguards to avoid knowledge costs (Park & Russo, 1996; Quintana-García & Benavides-Velasco, 2004). In addition, cooperation partners have partially conflicting interests arising from sharing some common goals while simultaneously harboring competitive intent (Padula & Dagnino, 2007). Managing competitive and cooperative interests in tandem incurs coordination costs that may also make cooperation suboptimal relative to other organizing forms.

Inter-firm network theory

Though partnerships are often treated as dyadic alliances, “key precursors, processes, and outcomes associated with them can be defined and shaped by the social networks within which most firms are embedded” (Gulati, 1998: 295). A network, consisting of actors (nodes) and relationships among them (ties), emerges when multiple actors are connected through relationships with one another. In an inter-firm context, a network is an agglomeration of cooperative ties between firms. These ties act as conduits and facilitate the flow of assets, information, and status (Gnyawali & Madhavan, 2001) that are the core focus of network theory (Gimeno, 2004; Gulati, 1999; Jarillo, 1988) and bear significant implications for firm behavior and performance.

A cooperation network arises when a number of competitors engage in cooperative relationships with each other (Gnyawali et al., 2006). Advantageous positions are those that are central (with a large number of connections) and structurally autonomous (with many

non-redundant ties) (Gnyawali et al., 2006; Sanou, Le Roy, & Gnyawali, 2016). The advantages that firms derive from these positions make them more likely to initiate a competitive action and less likely to experience retaliation (Gnyawali & Madhavan, 2001). Centrality is positively related to both volume (Gnyawali et al., 2006) and diversity (Sanou et al., 2016) of competitive actions, while autonomy is positively related to diversity (Gnyawali et al., 2006). In shaping firm behavior, structural patterns become a critical determinant of performance (Gulati, Nohria, & Zaheer 2000; Rowley, Behrens, & Krackhardt, 2000). For instance, by fueling an increased volume and diversity of actions, a large number of connections in a cooperation network can enhance market performance (Sanou et al., 2016), especially in dense networks (Andrevski, Brass, & Ferrier, 2016).

Game theory

Game theory offers a framework for rationalizing observed behavior when outcomes are partly dependent on another actor (Brandenburger & Stuart, 1996). In an inter-firm context, it highlights how interdependencies between firms mean that the actions of one can influence others (Axelrod, 1984; Teece, Pisano, & Shuen, 1997) and, in turn, manipulate value creation and capture (Ritala & Hurmelinna-Laukkanen, 2009). Though often focused on short-term “tit-for-tat” interactions, game theory also illustrates how the fates of individual actors are intertwined with the collective fate of the ecosystem within which they operate (Brandenburger & Nalebuff, 1996).

On one hand, game theory demonstrates how cooperation between competitors is a mechanism for avoiding mutually destructive outcomes. A Prisoner’s Dilemma model illustrates that, even in fixed-sum environments, firms can diminish payoffs by overly aggressive or opportunistic acts (Quintana-García & Benavides-Velasco, 2004; Ritala & Hurmelinna-Laukkanen, 2009). Game theoretic logic also suggests that cooperative norms between competitors in certain areas may be optimal in both one-off and repeated engagements. In one-off engagements, cooperative norms preserve mutual payoffs and maintain the firm’s network reputation as a desirable collaborative partner (Gulati et al., 2000; Hill, 1990). In repeated engagements, noncooperation can incite retaliation and eliminate future opportunities to cooperate (Axelrod, 1984; Hill, 1990). As inter-firm cooperation is often an important performance driver, these effects may lead to inferior performance over time for non-cooperative firms (Hill, 1990).

On the other hand, a Stag Hunt model highlights how cooperation between competitors can create positive-sum outcomes where available (Quintana-García & Benavides-Velasco, 2004). The stag hunt analogy illustrates how two hunters can work independently to each catch a hare, or collaborate to catch a deer. Naturally, a deer represents a bigger coup than two hares (Ritala & Hurmelinna-Laukkanen, 2009). In the same vein, cooperation presents opportunities for competitors to combine complementary and homogeneous resources in innovative ways to create a level of value that neither could manage alone (Bengtsson & Kock, 2000; Garrette et al., 2009; Gnyawali & Park, 2011).

Paradox theory

A paradox “denotes contradictory yet inter-related elements ... that seem logical in isolation but absurd and irrational when appearing simultaneously” (Lewis, 2000: 760). A paradox is evident when contradictory elements exist simultaneously and persist over time (Smith & Lewis, 2011). Paradox researchers have explored how contradictory elements, such as competition and

cooperation, can be attended to simultaneously (Smith & Lewis, 2011). Chen notes, “as the traditional yin–yang symbol suggests, opposites define and are defined by each other, so that it becomes impossible to conceptualize an idea without considering and incorporating its inverse.” (2008: 198).

Paradox theory is relevant to the study of coopetition because competition and cooperation are contradictory, interdependent opposites that persist over time as firms engage in coopetition (Gnyawali et al., 2016; Raza-Ullah & Bengtsson, 2014). The resultant coopetition paradox manifests through incongruities at the alliance and firm levels. At the alliance level, dualities involve the simultaneous pursuit of seemingly opposite ends (e.g., value creation and value capture). At the firm level, there are partner-specific contradictions (e.g., the economic interests of the focal firm versus those of the coopetition partner) (Gnyawali et al., 2016). Both contradictions and dualities lead to tensions that must be managed (Fernandez, Le Roy, & Gnyawali, 2014). Early coopetition research suggests that individuals cannot simultaneously balance two conflicting logics and so competition and cooperation need to be separated rather than integrated (Bengtsson & Kock, 2000). This approach of separation is a predominantly Western approach involving avoidance or confrontation where the totality of the paradox becomes the sum of the parts. This contrasts with a more holistic Eastern approach, where a shift occurs from avoidance (separation) or confrontation (trade-off) to integration. Integration means that the totality of the paradox is not linearly determined by its components, and creates potential for the holism of the paradox to be understood and harnessed (Chen, 2008).

Paradoxical tensions from coopetition may be leveraged through a suite of unique coopetition capabilities (Bengtsson et al., 2016; Gnyawali et al., 2016). Three critical capabilities have been identified in the literature: analytical capability, executional capability (Gnyawali et al., 2016), and emotional capability (Raza-Ullah, 2017). Analytical capability facilitates an accurate and holistic understanding of the sources of tension and their interdependencies, while executional capability describes the development, implementation, and utilization of routines, and determines how productively the tension in a coopetition relationship can be managed (Gnyawali et al., 2016). Emotional capability refers to an ability to accept, understand, and regulate ambivalent emotions and their effects, stemming from opposing forces of competition and cooperation (Raza-Ullah, 2017).

An integrative approach

Despite valuable explanations offered by each theoretical perspective independently, a deeper understanding of coopetition requires integration of multiple perspectives. Good theories (those offering useful explanations) engage in systematic scrutiny of specific dimensions but, although narrow theoretical focus is necessary for fine-grained understanding, it naturally leaves less scope to understand other dimensions. It is therefore important to integrate multiple theories for a deep understanding of the totality of coopetition. For instance, joint outcomes from coopetition have been understood through theories like the RBV and game theory, but individual outcomes rely more heavily on TCE, inter-firm network theory, and paradox theory. Unravelling coopetition outcomes in their entirety, positive and negative, requires systematic analysis of both sets of outcomes. Similarly, different resources will exhibit unique influences on transaction costs (Madhok, 2002), which means that an appreciation of value creating resources is a pre-requisite for addressing concerns of TCE.

Despite the importance of integrating multiple perspectives, limited integrative efforts are found in the literature. We indicate two remedial approaches that researchers may pursue. We highlight how insights from two different perspectives—RBV and inter-firm networks—can

be combined to provide deeper explanations (such as those suggested by linking statements in Figure 2.1). In addition, taking coopetition transaction costs as an example, we illustrate how integration of the four other perspectives outlined—RBV, inter-firm network theory, game theory, and paradox theory—can illuminate novel insights that challenge the current understanding of transaction costs in coopetition.

Integrating two theories: RBV and inter-firm network theory

Despite the traditional focus of resource-based theory on advantages arising from internal resources (Barney, 1991; Dierickx & Cool, 1989; Wernerfelt, 1984), an inter-firm networks perspective illuminates how external resources are also important (Gnyawali & Madhavan, 2001; Gnyawali et al., 2006). Where firms cannot meet resource requirements on their own, partnerships create opportunities for access to relevant resources (Cassiman, di Guardo, & Valentini, 2009; Dyer & Singh, 1998). By incorporating a networks perspective, resource accessibility, in addition to ownership or control, becomes a source of advantage (Lavie, 2006). Therefore, integrating the RBV and inter-firm network theories can offer a deeper understanding of advantages than either perspective in isolation.

First, network-based advantages are critically determined by resource characteristics. Network ties serve as conduits to enable resource flow between firms, and resource flow leads to resource asymmetries, which enable firms to carve out advantageous positions (Gnyawali & Madhavan, 2001). Advantage, however, is critically determined by the nature and quality of the resources available (Gulati et al., 2011). For instance, central actors—equipped to undertake a greater volume of competitive actions—are capable in this regard because of the resources they can access (Gnyawali et al., 2006). Central actors experience a higher volume and greater speed of resource access, while their resource superiority increases their tendency to seize the competitive initiative. This enables these firms to undertake more competitive actions, as well as more resource-intensive actions, while better information means that their efforts are more likely to generate a positive performance impact (Gnyawali & Madhavan, 2001).

Second, the availability of external resources means that complementarity or “fit” between partners’ resource sets is not merely an outcome of their internal stocks. Instead, complementary potential also relies on the portfolios of external resources that each partner can access. An assessment of benefits available from a given partner’s resources must consider not only how they complement internal resources, but also how they fit with the resource sets of other partners. For example, the advantages that Samsung can derive from accessing Philips’ TV-development capabilities are immediately reduced once Samsung begins to cooperate with Sony, a firm with similar expertise. Network influences on resource advantages may also be illustrated at the relationship level—resource flows that fill structural holes can generate earlier access to higher-quality information and resources (Burt, 1992; Gnyawali & Madhavan, 2001) relative to those trickling down from more structurally autonomous actors.

Integrating multiple theories: New insights regarding coopetition transaction costs

Having illustrated how deeper appreciation can arise from the integration of two theories, we proceed to integrate multiple perspectives to generate new avenues for understanding coopetition transaction costs. As noted, the prevalent TCE view is that the risks and costs of opportunism mean that coopetition alliances experience higher costs (Park & Russo, 1996; Park & Ungson, 2001). Yet, this is at odds with industry evidence of benefits across a variety of sectors (e.g., Fernandez et al., 2014; Gnyawali & Park, 2011; Quintana-García & Benavides-Velasco, 2004).

We integrate TCE with insights from other theories in order to reconcile such industry evidence with extant theory. Our analysis suggests that there may be transaction benefits, as well as costs, arising from coopetition.

First, TCE illuminates how exchange performance increases with investments in specialized assets (Parkhe, 1993) but a resource-based analysis suggests that the costs of such asset specialization may be lower in a coopetition exchange. In general, the more specialized an asset becomes, the lower its value in alternative uses and the more exposed the owner becomes to potential risks of hold-up from an opportunistic partner (Dyer, 1997; Williamson, 1991). However, driven by similarity in their resource bases (Baum & Mezias, 1992; Chen, 1996), coopetition partners' investments in specialized assets may not require the same level of departure from strategic resource goals as non-competitors. In addition to lower investments in specialized assets, partners may experience reduced risks. This occurs because competitors who are facing the same exogenous challenges (Gnyawali & Park, 2011; Ingram & Qingyuan, 2008; Peng, Pike, Yang, & Roos, 2012) can more efficiently identify other purposes for specialized assets that must be redeployed. Thus, both the level of additional investment required and the size of the hold-up risk may be reduced through coopetition. This may generate benefits such as superior opportunities for differentiation, rapid cycles of innovation, and the preservation of causal ambiguity (Dyer & Singh, 1998).

Second, game theory highlights how additional interactions between coopetition partners may generate less-costly safeguards against opportunism. Coopetition partners are characterized by some market commonality, technological rivalry, or resource overlap, in addition to cooperation. This means there are, at minimum, two points of contact: one cooperative and one competitive (Baum & Korn, 1996; Gimeno & Woo, 1996). Multiple and interdependent contacts bring additional opportunities for retaliation against opportunistic behavior (e.g., Axelrod, 1984; Heide & Miner, 1992; Kelley & Thibaut, 1978) which create a greater deterrent (Chen, 1996; Chen & MacMillan, 1992; Chen, Smith, & Grimm, 1992). Coopetition arrangements may therefore offer self-enforcing protection against opportunism without assuming the full and otherwise necessary costs of contracting, monitoring, and enforcement. Self-enforcing safeguards, such as interdependent interactions, are less costly than contractual safeguards, lowering transaction costs in competition and releasing more resources for productive, value creating purposes (Dyer & Singh, 1998).

Third, the literature suggests that a firm's network position influences its competitive market behavior (Gnyawali & Madhavan, 2001; Gnyawali et al., 2006; Sanou et al., 2016) and we argue that similar structural patterns may also influence competitive alliance behavior (i.e., opportunism). A partner who is a central actor in their network is not dependent on a small number of ties for accessing external resources and may experience greater volume and speed of resource access. They are less worried about competitive escalation with any single partner and, therefore, their increased likelihood of competitive actions in the market (Gnyawali et al., 2006; Sanou et al., 2016) may be mirrored by a greater tendency towards opportunism in coopetition. This is exacerbated in relationships between nonequivalent actors (e.g., Gnyawali & Madhavan, 2001) where "an actor's power to sanction an exchange partner depends on the extent of his ability to diffuse negative information ... [to] potential future trading partners" (Stuart, 2003: 193). Thus, risks of opportunism may vary depending on partners' network positions.

Fourth, insights from paradox theory suggest that coordination costs arising from concurrent competition and cooperation can be offset through analytical and executional capabilities for understanding, managing, and leveraging sources of paradoxical tension in coopetition (Gnyawali et al., 2016). Both sets of capabilities contribute to limiting the costs associated with paradoxical tension. Analytical capabilities refer to partners' abilities to simultaneously

hold the conflicting logics of competition and cooperation, to understand the competition–cooperation paradox, and to regulate tensions (Gnyawali et al., 2016). They enable partners to maintain tensions at acceptable levels (e.g., Lado et al., 1997; Park, Srivastava, & Gnyawali, 2014) through accurate assessments of the paradox. By appreciating its nature, partners can identify and manage sources of paradoxical tension, prioritize complexities, and forecast future tensions. Executional capabilities move from understanding tensions to designing and implementing actions to deal with them (Gnyawali et al., 2016). This involves developing routines, implementing processes that transform routines into capabilities, and timely utilization and refinement of routines and capabilities for specific purposes. The effect of executional capabilities occurs in three ways: effective management of joint relationships, creation of greater value from broader coopetition relationships (an experience-based capability where a firm incrementally becomes “better” at coopetition over time), and superior internal value creation (e.g., applying knowledge or technology in other areas). As a clear and expedited understanding of tensions facilitates better decisions about routines and processes required to leverage them, executional capabilities are enhanced by analytical capabilities and, in combination, both offer a “synthesis and integration” approach to tackling paradoxical tensions arising from coopetition (Gnyawali et al., 2016; Poole & van de Ven, 1989). Where both are utilized appropriately, coordination costs may be constrained.

Discussion and implications

Growth of coopetition research brings great promise but also significant challenges. We focused on two related issues: the variety of theories being used to explain coopetition and the lack of attempts to integrate insights from multiple perspectives. We began by laying out the main insights available through analysis of coopetition from five core perspectives. The resource-based view is used to explain how firms can create value through coopetition by combining complementary and homogeneous resources. Transaction cost economics highlights potential costs arising from risks of opportunism in coopetition and partners’ partially conflicting interests. The inter-firm network perspective illuminates how firms may achieve advantages in a coopetition network when they have a large number of connections and a high level of non-redundant ties. Game theory demonstrates how cooperation among competitors could reduce mutually destructive outcomes and create greater value than a single competitor could manage alone, while cooperative norms in some areas may be beneficial in both one-off and repeated engagements. Paradox theory explains how contradictions and dualities, emerging from the conflicting logics of competition and cooperation, generate tension which requires unique capabilities to understand and manage. We subsequently illustrated the benefits of integrating multiple perspectives, initially focusing on the resource-based view and inter-firm networks, before proceeding to leverage each of four additional perspectives to illustrate how new explanations regarding coopetition transaction costs may be uncovered.

Our chapter offers two contributions to the literature. First, we have laid out extant coopetition explanations from five key theoretical perspectives. As noted, the variety with which theories are used to explain coopetition has generated incomplete and often conflicting insights within the literature. This often leads to hasty conclusions where one particular dimension of coopetition is overemphasized at the expense of others. By outlining the extent of knowledge from five core perspectives, our paper offers a more holistic explanation of the coopetition phenomenon than currently exists.

Second, we illustrated how integrating multiple theoretical perspectives can foster more systematic understanding of coopetition. At present, there is a dearth of research that integrates multiple

theories to generate novel explanations. This is problematic because deep understanding of the nuances of cooperation requires the strengths and insights of multiple perspectives. By showing how multiple theories may be integrated to build rich insights, and outlining how researchers may seek similar opportunities in other areas, our paper charts a path for future researchers to generate deep and novel explanations.

It is important to note limitations of our analysis. The integrative insights we offer are intended to be illustrative and not exhaustive. Systematic consideration may uncover explanations that directly conflict with those we have laid out and we urge researchers to be rigorous in their examination. For example, the effectiveness of self-enforcing safeguards or cognitive capabilities may be highly contingent on the level of spatial separation between competitive and cooperative activities (e.g., Bengtsson & Kock, 2000; Gnyawali, He, & Madhavan, 2008).

Our analysis also spans several levels, from network to dyad to firm and intra-firm levels. We have been clear in terms of the key mechanisms and how they might work, but a multi-level consideration naturally constrains the depth to which any one level can be explored. However, that is not to say that any single theory is only relevant at one level. Certain theories are more relevant than others at particular levels but may also contribute insights elsewhere. Inter-firm network theory, for example, is most relevant at the aggregate network level but also informs firm-level behaviors (e.g., Gnyawali & Madhavan, 2001). Paradox theory is most relevant at firm and dyad levels (Gnyawali et al., 2016) but also contributes to transaction-level analysis. Other theories may follow similar patterns in their ability to uncover insights at multiple levels.

Good theory answers important questions of why (Sutton & Staw, 1995; Whetten, 2009) and, indeed, there are many “why” questions awaiting new and better answers in cooperation. Why do competitors cooperate or cooperators compete? Why might it be particularly beneficial/challenging? Why is performance enhanced/diminished by cooperation? Our chapter suggests that existing theories, when combined, can generate improved answers to some aspects of these “why” questions. If scholars opt to pursue a cooperation theory in the future, we encourage rigor in providing evidence that such a theory can offer answers to important “why” questions that extend above and beyond what can be achieved through existing theories.

Unsurprisingly, there are many other promising opportunities to introduce established theories in ways that enhance our understanding of cooperation. First, the literature suggests that competitors’ relative absorptive capacity leaves them disproportionately well-equipped to identify, assimilate, and apply each other’s new and valuable knowledge. This brings both benefits and challenges. To understand the underlying processes that may drive this capability, as well as potential outcomes, in-depth examination and integration of organizational learning theories will be helpful. Second, short product life cycles, rapid innovation, and high R&D costs contribute to the uptake of cooperation in high-tech industries (Gnyawali & Park, 2011). However, there may be more deep-rooted mechanisms at play that could be uncovered by incorporating theories of complexity or uncertainty. Third, the relationship between competitors’ resources is something we highlight and a population ecology perspective (e.g., Hannan & Freeman, 1989) will be useful to more deeply understand how they develop and interact over time.

In summary, our chapter lays out the understanding of cooperation from five key theoretical perspectives and stresses the importance of integrating multiple theories to develop deeper analysis and build new explanations. We hope that our work can underpin robust future inquiries and spark innovative conceptual explanations.

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