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The coopetition paradox and tension in coopetition at multiple levels

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ABSTRACT

This article explores the nature of the paradox inherent in coopetition; that is, the simultaneous pursuit of cooperation and competition between firms, and emanating tensions that develop at individual, organizational, and inter-organizational levels. We dissect the anatomy of the coopetition paradox to discover how it materializes by creating an external boundary (i.e., via unifying forces) and internal boundaries (i.e., via divergent forces). After explaining the coopetition paradox, we distinguish tension from paradox and submit that tension comprises both positive and negative emotions simultaneously, also known as emotional ambivalence. Finally, we recognize that emotional ambivalence in coopetition prevails at different levels, and vary in its level of intensity and persistency in relation to different contexts. We employ illustrative cases to ground our propositions empirically. This article provides understanding on concepts, expects to incite fruitful dialogue, and fuels further studies on inter-firm paradoxes.

1. Introduction

Scholarly attention to coopetition, defined as the simultaneous pursuit of cooperation and competition between firms (Bengtsson & Kock, 2000; Brandenburger & Nalebuff, 1996), has increased due to the large number of industrial, relational, and firm specific factors that motivate or force firms to engage in these contradictory logics of interaction (Gnyawali & Park, 2009, 2011; Luo, 2007; Wu, 2012). A paradox materializes when cooperation and competition, two contradictory yet interrelated dualities are juxtaposed in coopetition (cf. Lewis, 2000). Furthermore, actors involved in coopetition experience tensions that stem from the paradox that materializes in the relationship between two firms (cf. Gnyawali & Park, 2011). Despite increased acceptance of coopetition in scientific circles, we know little concerning the nature and materialization of this paradox. Also, while the extant literature acknowledges that tension is an integral part of coopetition paradox (Das & Teng, 2000), substantial understanding on what underlies this tension and where it arises is lacking. We address these gaps by developing a conceptual framework that examines the role of contextual factors in materializing the paradox in coopetition, the nature of this paradox, and the underlying features of resultant tensions and their location.

First, we argue that coopetition must be perceived and understood through a paradox lens, as it engages rival firms to collaborate with each other and raises managerial complexities that together make for huge failure rates of alliances (Park & Ungson, 2001). It is challenging to maintain the dynamic balance between the two contradictory logics of interaction (Bengtsson, Eriksson, & Wincent, 2010) as the external forces or motives to compete and cooperate are seldomly balanced. Thus, there is always a risk that one interaction turns too strong over the other which minimizes the possibility to gain from both cooperation and competition, and, in extreme cases even dissolves the relationship prematurely. It is therefore essential to develop an understanding on how these factors shape and affect the coopetition paradox to enable managers to be proactive and to strive for balancing the two logics even if one of the forces is stronger. Therefore, the first purpose of this article is to explore the nature of the paradox and the unifying and divergent forces that initiate contradictory interaction between firms, creating external boundary and internal boundaries of the paradox respectively. Aside from mentioning that an external boundary integrates opposing elements while internal boundaries emphasize division (Smith & Lewis, 2011), the extant literature lacks insight both into how the boundaries that form a paradox are created and on the dynamic interplay between the external boundary and internal boundaries. By illustrating two coopetition examples, the manifestation of a paradox in the relationship between two cooperating competitor firms; Sony–Samsung, and between two partner firms that compete; Apple–Google, we argue that several factors in the coopetition context engender the creation of these boundaries. This section of our article contributes to the understanding on (1) how a paradox materializes, (2) the inverse built-in functions of an external boundary and internal boundaries, and (3) the interplay between the external and internal boundaries as well as their effect on the size of the dualities (i.e., cooperation and competition), and their role in dissolving the paradox.

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Second, by stating that a paradox is an antecedent of tension, we argue that tension transpires when actors involved in coopetition cognitively evaluate the paradox and the positive and negative consequences that it brings to their own and their firm's well-being. Appraisal of the coopetition paradox results in a state of simultaneously experiencing positive and negative emotions. We argue that this emotional state underlies tension in coopetition. Also known as emotional ambivalence, simultaneous experience of positive and negative emotions has received scant attention in organizational research (e.g., Fong, 2006; Pratt & Doucet, 2000; Rothman, 2011), and has unfortunately remained unexplored in research on coopetition. It requires significant attention from coopetition scholars as the coopetition paradox originates conflicting emotions simultaneously and stands as a strong source of emotional ambivalence or tension in coopetition. Extreme levels of high or low tension hamper coopetition performance and thus need to be managed (Raza-Ullah & Bengtsson, 2013). However, to manage tension, we first need to understand what it is. Thus the second purpose of this article is to establish an understanding that tension in coopetition encompasses simultaneously positive and negative emotions that prevail both at the relational level between firms and inside the firms at different levels. We demonstrate this by drawing on two intriguing case examples of Skega–Trellex and Permanova–Rofin Sinar, each taken from a different coopetition context. This section contributes by elucidating that tension stemming from coopetition paradox (1) comprises holding two conflicting emotions simultaneously, (2) preponderates at different levels, and (3) can vary in its intensity and persistency in relation to the coopetition context. This article thereby takes the very first initiative to ascertain that tension in coopetition comprises conflicting emotions simultaneously. In sum, it provides understanding on concepts, incites dialogue among researchers, and fuels further studies of inter-firm paradoxes.

2. A paradox lens on coopetition

Coopetition is a portmanteau of cooperation and competition that develops when firms cooperate and compete simultaneously (Bengtsson & Kock, 2000). While cooperation seeks value creation, a positive-sum game, and shared benefits, competition demands opportunistic behavior, a zero-sum game, and private benefits (cf., Das & Teng, 2000). These opposite logics, contradict each other although coopetition demands their simultaneous presence, which informs us that coopetitive relationships are paradoxical (Smith & Lewis, 2011). Therefore, we argue that the coopetition phenomenon should be perceived through a paradox lens.

A paradox is a complex phenomenon that has been weighted differently by various streams of research. In the western management literature, a paradox is often considered within an 'either/or' framework that envisages two opposites as mutually independent with only one of the two operating at a given time (cf. Chen, 2008). However an 'either/or' situation is defined as a dilemma that must be differentiated from a paradox in that the latter represents a situation in which it is not possible to choose between contradictory dualities (Cameron & Quinn, 1988). Thus, the contradictory logics of interaction (i.e., cooperation and competition) are simultaneously pursued despite the fact that they seem illogical when juxtaposed (cf. Lewis, 2000). This is in line with eastern philosophy that emphasizes integration of diverse elements, perceiving them as 'both/and', and symbolized by the well-known yin/yang image (Fig. 1.) that represents the natural wholeness of contradictory elements, each containing the seed of the other, and together forming a dynamic unity (Chen, 2008). As coopetition is defined as simultaneous collaboration and competition, we argue that the 'both/and' perspective of a paradox holds true for the coopetition phenomenon.

Following this perspective and in line with Smith and Lewis (2011), we emphasize that the complex nature of a paradox comprises two interdependent but contravening boundaries: internal and external. Internal boundaries separate two contradictory elements/dualities, emphasize distinction between them, and encourage 'either/or' thinking. The external boundary unifies the two contradictory elements, or juxtaposes opposing dualities and necessitates 'both/and' thinking. The two boundaries are created simultaneously and stand as prerequisites of materialization and sustenance of a paradox. Differences between paradoxes in different coopetitive relationships relate to these boundaries: the size of internal boundaries (i.e., strength of divergent forces), the strength of an external boundary (i.e., unifying forces), and the interplay between them, as illustrated in Fig. 1.

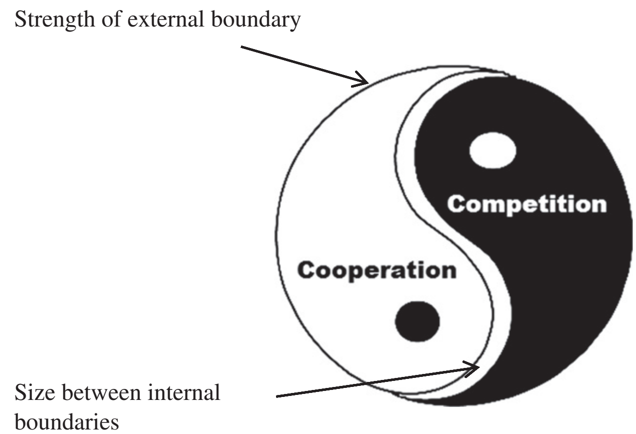

Fig. 1. Size of internal and strength of external boundaries boundary.

When the external boundary that juxtaposes the dualities of cooperation and competition, and the internal boundaries that separate the dualities are created, the contradictions inherent in the paradox also are activated. The most reported contradiction is joint value creation versus private value appropriation (Brandenburger & Nalebuff, 1996). This contradiction relates to the problem of sharing knowledge with a competitor while simultaneously preventing its unintended leakage (De Rond & Bouchikhi, 2004; Luo, Shenkar, & Gurnani, 2008). Firms cooperate to explore each other's know-how, and thus share knowledge for common benefits. However, at the same time, they attempt to exploit each other's know-how for private gains and to maximize control over their own knowledge (Hamel, Doz, & Prahalad, 1989; Khanna, Gulati, & Nohria, 1998). Another contradiction that might develop in a relationship relates to the short-term versus long-term orientation of the firms. One competitor might commit more to collaboration based on its long-term orientation while the other might behave opportunistically for short-term gains (Das & Teng, 2000).

At this point, we utilize the paradox lens to put forward a conceptual framework that also guides the following sections in this article. As shown in Fig. 2., the framework has three primary features: (1) a coopetition context that generates forces creating external and internal boundaries, (2) a coopetition paradox that materializes as boundaries are created, and (3) tension that transpires at different levels when actors evaluate the consequences of the coopetition paradox. The model depicts that the coopetition context (i.e., industrial, relational, and firm specific factors) drives competing firms to collaborate, or cooperating firms to compete; thus creating external and internal boundaries that materialize a coopetition paradox. When actors evaluate the coopetition paradox and appraise the consequences for themselves and their firm, they construct tension. Tension in coopetition comprises simultaneously both positive and negative emotions, known elsewhere as emotional ambivalence (Fong, 2006; Pratt & Doucet, 2000) that results from conflicting cognitions on the consequences of a coopetitive relationship. Emotional ambivalence develops both in the relationship (i.e., inter-organizational level) and inside the organization at individual and/or inter-unit levels. Furthermore, the intensity of ambivalence and its persistency at different levels varies depending on the coopetition context and the resultant paradox.

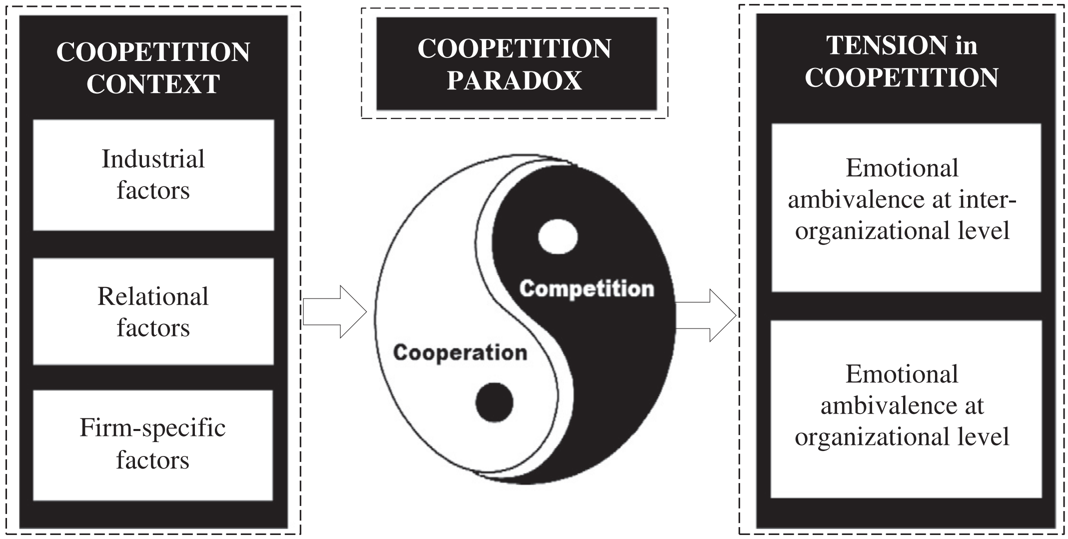

Fig. 2. A conceptual model of the coopetition paradox and tension in coopetition.

3. Coopetition context and the materialization of the coopetition paradox

In this section, we address the relationship between the coopetition context and the paradox that it manifests in relationships of competitor firms that cooperate and partner firms that compete, as indicated by the first arrow in Fig. 2. First, we provide two examples of these different ways of coopetition paradox's materialization, followed by a discussion on the contextual drivers, the creation of boundaries, and the dynamic interplay between the boundaries.

3.1. Materialization of the coopetition paradox

There are mainly two possible ways in which a coopetition paradox can materialize. The first is when two firms consider each other competitors, but at some point in time also acknowledge the need to cooperate. The unifying forces to collaborate juxtapose the contradictory dualities of cooperation and competition by creating the external boundary of the paradox, while the diverging forces to compete remain and create the internal boundaries. We illustrate this with an intriguing case example of coopetition between Sony Corporation and Samsung Electronics. The in-depth study by Gnyawali and Park (2011) shows that, despite fierce rivalry, Sony and Samsung established a joint venture to develop 7th generation LCD panels for flat screen TV. In addition to competing vigorously in various geographic markets and product–market segments, both companies were perceived as enemies due to the hostile history between Korea and Japan. Before the joint venture, neither the external boundary nor the internal boundaries seemed to exist, as juxtaposing cooperation with the ongoing competition (i.e., head to head) was not considered an option. The two rivals were mutually independent and cooperation was considered an irreconcilable opposite of competition that could never occur between the two firms. However, as mentioned by Gnyawali and Park (2011), several unavoidable factors (i.e., win–win possibilities) drove them to unify and thus forced them, from being independent, to become interdependent. Unifying drivers that created the external boundary include: (1) Sony's TV business was suffering and only cooperation with a capable competitor could have enabled it to quickly launch Bravia and unseat the Sharp Corporation. However, Samsung cooperated because, by employing Sony's brand name and expertise, it became the largest TV manufacturer and panel producer, and (2) the flat panel TV industry has the characteristics of short product life cycles, a huge capital investment requirement, and a complicated nature of technology that necessitates cooperation. Therefore, the external boundary was created. However, as the firms were still competing, internal boundaries were also created between the cooperation–competition duality, which indicates the materialization of a coopetition paradox.

Second, a coopetition paradox also materializes between collaborating firms if they start to compete. Conflicting interests develop between partners that notoriously frost the relationship and ultimately decrease their mutual dependence. This state stimulates firms to seek distance from each other, act opportunistically, and become hostile to each other. In other words, they engage in competition. However, competitive engagement alongside continuing cooperation between firms implies that an external boundary has juxtaposed the contradictory dualities, and that, in turn, internal boundaries between competition and cooperation are created. Thus, a coopetition paradox materializes. The relationship between Apple Inc. and Google Inc. is a good example that illustrates how collaborative firms begin to distance themselves from each other and, while remaining in collaboration, compete through their interaction with other partners.

Initially, Apple and Google worked together seamlessly to launch the first iPhone. This was evident at the ninth annual Macintosh trade show, Macworld 2007, when both CEOs shared the same stage. While Google's CEO, Eric Schmidt, joked about forming a merger he termed 'AppleGoo' between the two companies, Apple's co-founder and CEO, Steve Jobs, announced that the iPhone would come equipped with Google Search and Google Maps (Block, 2007). Since the launch of the first iOS in 2007, iPhones and iPads had incorporated Google Maps, YouTube, and a default Google search engine as standard. Apple had developed all other applications in-house ab initio. Thus, in many ways Google was the first company to provide second-party apps for the iPhone. Motives for cooperation were so strong that Schmidt had been sitting on Apple's board of directors from 2006 to 2009 (Richey, 2012). In other words, the relationship was mainly based on the cooperative logic of interaction, and was thus non-paradoxical.

However, it became a coopetitive relationship when Google announced Android as a mobile software platform ten months after the launch of iPhone in 2007. The Android mobile operating system was seen as a serious threat by Apple as it initiated a standard setting war in the smart phone industry jeopardizing the dominance of Apple's iOS. In an exclusive biography by Isaacson (2011), Jobs seemed determined to destroy Android, against which he was willing to wage a 'thermonuclear war' as he believed it to be a stolen product. Believing that Google was opportunistic and had deliberately appropriated its core value, Apple turned its competitive aggression both on Google and its partners employing Android. Thus, competition became juxtaposed with ongoing cooperation, external and internal boundaries were formed, and a coopetition paradox developed. As competition escalated, Schmidt left Apple's board in 2009 and the iPhone began to come preloaded with several Yahoo! apps instead of Google apps (Efrati & Lessin, 2013). This shows that the size between the internal boundaries was also increasing. However, despite fierce rivalry, both firms teamed up to launch a joint bid for Eastman Kodak patents (Saitto, Jinks, & Womack, 2012), and Apple users continued to download Google apps from Apple's online store; for example, YouTube.

The two examples above illustrate that factors in the coopetition context function both as unifying and divergent forces, which stimulate firms simultaneously to take action in accordance with the two contradictory logics of interaction (i.e., cooperation and competition). We now further investigate the factors that create the coopetition paradox.

3.2. Contextual factors behind the coopetition paradox's materialization

Based on the case illustrations above and the extant literature, we identify three broad factors in the coopetition context that simultaneously drive firms to compete and cooperate, and manifest the paradox in two distinct ways. These factors are industrial, relational, and firm specific (cf. Gnyawali & Park, 2009), which interrelate, overlap, and affect each other over the process of boundary creation, and thus in the materialization of a coopetition paradox.

First, several unifying forces in the coopetition context, for example, short product life cycles, technological convergence, and high R&D costs (cf. Gnyawali & Park, 2009; Luo, 2007), drive competitors to collaborate and create the external boundary of the paradox. Firms are obliged to work together despite having conflicting strategic interests when they realize the necessity to quickly innovate or improve existing products (Chen & Li, 1999; Luo, 2007). Technological convergence implies that firms from different industries jointly develop new integrated products based on diverse technologies (cf. Sahaym, Steensma, & Schilling, 2007). In addition, in high technology sectors, the complexity of products and integrated systems demand that competing firms both share high R&D costs and increase the intensity of joint R&D activities (Gnyawali & Park, 2011). In addition, setting industry standards, gaining reputation, and developing new markets motivate competing firms to collaborate (Tsai, 2002).

Second, diverging forces in the coopetition context drive partners to compete. Luo (2007) argues that four internal and external factors drive firms to compete with each other; (1) an increased overlap between firms competitive goals, (2) increased maturity of the industry, (3) increased symmetry between firms and (4) decreased resource dependency between firms. Competitive goals become overlapping if for example the firms' competitive strategies and competitive advantage or the product and business portfolio become similar. For instance, Google's strategy to launch Android operating system posed serious threats to Apple's iOS business as the two operating systems intended to serve the same market need. Increased maturity of the industry intensifies competition (Baum & Korn, 1999; Bettis & Hitt, 1995) as the markets are shrinking and firms have to compete intensively to optimize the cash inflows from their market position. A high level of symmetry is related to market commonality and resource similarity (Chen, 1996). Symmetry therefore creates competitive threat and increases the risk for opportunistic behavior. If instead the firms are asymmetric and work on different geographic and product markets, they do not meet in direct competition to the same extent. Finally, if the resource interdependency is weak, firms are more inclined to compete (Henderson & Mitchell, 1997). It becomes more important to develop distinctive competitive advantages over other firms (Lado, Boyd, & Hanlon, 1997).

In sum, industrial drivers relate to the maturity of the industry, symmetry of firms, high industrial cost structure, and technology/market development in the industry and to the uncertainty on whether a particular standard will lead the industry. Relational drivers are linked to complementarities and similarities between firms and their resources. Firm-specific drivers relate to a firm's resources, strategy, and perceived vulnerability. As such, industrial, relational, and firm specific factors motivate or force competitor firms to cooperate while still competing, and partner firms to diverge and compete while still cooperating. In both cases, an external boundary is created that unifies the conflicting dualities and emphasizes the necessity of 'both/and' for contradictory logics of interaction. With the creation of an external boundary, internal boundaries also occur simultaneously; however, the internal boundaries cannot form without the former juxtaposing the two dualities. The internal boundaries between the dualities emphasize separation, as both dualities (i.e., cooperation and competition) relentlessly fight to operate at each other's expense, and strive to hold a situation of either one or the other at one place and time. It is the external boundary that enables both dualities simultaneously to hold a 'both/and' logic. Thus:

Proposition 1a. *The coopetition context that forces or motivates rival firms to cooperate or partner firms to compete, creates external and internal boundaries to materialize a coopetition paradox. A paradox comes into being (and continues) when both boundaries simultaneously exist (and persist over time).*

Proposition 1b. *Whereas the external boundary unifies the dualities and emphasizes a 'both/and' logic in a coopetition paradox, internal boundaries between the dualities simultaneously separate the dualities and emphasize an 'either/or' logic.*

3.3. Interplay between external and internal boundaries

The strength of the external boundary and the size between the internal boundaries refer to the pressure in the coopetition context that induces firms to cooperate and compete simultaneously. The greater the pressure that induces cooperation, the stronger the external boundary becomes. Likewise the stronger the pressure to compete, the greater the size between the internal boundaries is. The strength of the external boundary and the size between internal boundaries affects the paradox in three ways. First, the strength of external boundary influences the size between the internal boundaries of the paradox. The stronger the external boundary, the smaller the size between the internal boundaries as, despite the contradictions, the 'both/and' logic not only juxtaposes but also pushes the dualities toward each other. For instance, both Sony and Samsung realized the far-reaching benefits of simultaneously pursuing cooperation and competition, which relates to strong pressure toward cooperation in the context, and the presence of a strong external boundary.

Second, the external boundary and internal boundaries also influence the relative size of dualities in the paradox. If two firms are hostile and fierce rivals, and the forces to collaborate are weak, then competition dominates cooperation. The current coopetition between Apple and Google demonstrates that both are mainly competing against each other with little cooperation. Thus, competition duality outbalances the cooperation duality. Nonetheless, if external pressure is also high on firms to collaborate intensively while aggressively competing at the same time, both dualities strike a balance. This is evident in the Sony–Samsung case, as both firms were competing vigorously while simultaneously involved in active collaboration. Besides, cooperation also dominates competition if the external boundary is very strong and the firms do not compete in the main markets. Apple's relationship with Yahoo! is an example. Yahoo! finance and weather apps are preloaded on iPhones, and Yahoo! Data, such as sports statistics, help power Apple's Siri voice assistant (Efrati & Lessin, 2013). Yahoo! products/services are utilized in Apple's devices, and Apple has a good partner with which to replace Google. Into the bargain, they do not compete directly with each other on their offerings and products. This leads us to our second proposition:

Proposition 2a. *The strength of the external boundary and the size between the internal boundaries are likely to affect each other and also the relative size of the two dualities in the coopetition paradox.*

Third, the strength of the external boundary and the size between the internal boundaries affect the likelihood of dissolution of the paradox. A very weak external boundary can be destroyed if dualities are in extreme conflict with each other, and it no longer has the required strength to retain both dualities. The stronger pressure to compete enlarges the distance between the internal boundaries that in turn stretches the external boundary and weakens it. With a weak external boundary and increasing size between internal boundaries, the Apple–Google coopetition paradox seems to be at risk. If the size, or distance, between internal boundaries increases to an extent that it exceeds and breaks the strength of the external boundary, the dualities will escape from the external boundary. As a result, the coopetitive relationship dissolves and transforms into pure competition. Thus, for instance, if Apple stops sharing Google properties and apps altogether, and Yahoo! succeeds in replacing Google completely, the coopetitive relationship between Apple and Google will dissolve into pure competition. Conversely, if the external boundary becomes too strong, so that the forces to collaborate completely conquer the competitive aspect of the coopetitive relationship, it also dissolves; for instance, into a merger or an acquisition (cf. Das & Teng, 2000). This implies that the external boundary needs to be sufficiently strong and internal boundaries have adequate distance between them, thereby producing a balanced coopetitive relationship. Had the reasons for Samsung and Sony's coopetition not strengthened the external boundary sufficiently to hold the conflicting dualities of cooperation and competition simultaneously, the coopetitive relationship would have dissolved prematurely without gaining the intended benefits. Thus:

Proposition 2b. *If the external boundary becomes either too strong or too weak in relation to internal boundaries, the likelihood that the coopetition paradox will dissolve is increased.*

4. Tension or emotional ambivalence in coopetition at different levels

In this section, we discuss the relationship between the coopetition paradox and tension in coopetition, as illustrated by the second arrow in Fig. 2., understanding on which is critical as the two concepts significantly differ from each other. A paradox describes how two firms interact with contradictory logics (i.e., cooperation and competition), whereas tension is the consequence of this interaction that is experienced by individuals at different levels. The coopetition literature usually explains tension in terms of role conflicts; 'tension' between cooperation and competition; or between the contradictions inherent in the nature of the coopetitive phenomenon; for instance, value creation versus value appropriation (cf. Das & Teng, 2000; Lacoste, 2012; Tidström & Åhman, 2006; Wilhelm, 2011). Similarly, in the paradox literature, tension is often interchanged with a paradox and described as a 'tension' between opposing dualities (cf. Eisenhardt, 2000; Jarvenpaa & Wernick, 2011; Vince & Broussine, 1996). As a result, we know little concerning what underlies 'tension' except assuming it to be 'something' related to contradictory values or interchanging it with other concepts such as a paradox or conflicts.

4.1. Tension and its underlying constituents

As soon as the coopetition paradox materializes, actors cognitively begin to appraise and evaluate the consequences (e.g., benefit or harm) that this paradoxical situation brings to their own and their firm's well-being (cf. Smith, Haynes, Lazarus, & Pope, 1993). They evaluate the dual consequences of simultaneously cooperating and competing with the other firm. Consequently, positive emotions result from an evaluation on collective interest, mutual benefit, or value creation (i.e., cooperation elements) that evokes feelings of trust, confidence, and happiness. In contrast, negative emotions result from an evaluation of self-interest, harm, or defection (i.e., competition elements) that elicits feelings of distrust, greed, and fear. For example, greed for having larger share of the created value, distrust for withholding key information, and fear of the other's opportunistic behavior (cf. Zeng & Chen, 2003). Thus, the cognitive appraisal of the coopetition paradox results in conflicting emotions, positive and negative, while holding both at the same time means that actors experience tension. Research in the coopetition and paradox literatures has not to date seriously delved into the fundamental issue of simultaneously holding conflicting emotions. In this article, we accentuate that simultaneous experience of conflicting emotions underlies tension in coopetition paradox, which also clarifies the distinction between a paradox and paradoxical tension: a paradox is an antecedent of tension, and tension comprises simultaneously holding positive and negative emotions.

The simultaneous experience of positive emotions (e.g., excitement and happiness) and negative emotions (e.g., frustration and sadness) concerning an event or a phenomenon elsewhere is known as 'emotional ambivalence' (e.g., Fong, 2006; Kaplan, 1972; Pratt & Doucet, 2000). Organizational scholars argue that emotional ambivalence is prevalent in the workplace but declare it to be an underexplored emotional state in organizations (e.g., Fong, 2006; Fong & Tiedens, 2002; Plambeck & Weber, 2009; Pratt & Doucet, 2000; Rothman, 2011). Unfortunately, to the best of our knowledge, it has gone totally unnoticed in inter-organizational research on coopetition and paradoxical relationships. We argue that the paradox in a coopetitive relationship stands as one of the main sources of emotional ambivalence that transpires both at the relational level between firms and at different levels inside the organizations. Therefore, taken from our earlier research, we analyze two further examples of coopetition (Bengtsson, 1998; Bengtsson & Kock, 2000, 2003), and draw on the extant literature to argue that emotional ambivalence not only exists but also preponderates at different levels. The two case examples are based on interview data collected at different points in time, which enabled us to obtain a deeper understanding on emotions experienced as a result of coopetition.[3]

In the first case, the coopetition paradox between Skega Ltd. and Trellex Ltd. (i.e., manufacturers of linings for mills employed in the mining industry) materialized in a coopetition context that was stable as the industry was concentrated with only a few buyers and sellers. The level of symmetry between the two firms in their product, market, and size was high. Therefore, both firms were active competitors in product development, and fought intensely to maximize their respective share of the market. Simultaneously, contextual factors drove them to collaborate in material development, to share knowledge, reduce costs, and improve product quality. Collaboration with the main competitor was due to the less likely possibility of alignment with an alternate partner to obtain the same benefits.

In the second case, the paradox in the relationship between a small firm, Permanova Ltd. (a Swedish manufacturer of fiber optics) and a large firm, Rofin Sinar Ltd. (a German manufacturer of laser sources),

[3] Introductory face-to-face interviews with presidents and top management of the firms were initially conducted. Thereafter interviews were conducted with departmental managers. To facilitate collection of multiple perspectives, the questions asked were broad. In the Skega–Trellex case, interviews were conducted with 19 managers. The same individuals were interviewed face-to-face up to four times. The Permanova–Rofin interviews were conducted with eight managers up to three times. Due to the complexity of the network, we approached this relationship from the perspective of Permanova. As Permanova is a small company, it was easy to map its relevant activities and target respondents for interviews. We also identified and interviewed key informants who influenced and were involved in the tension-filled activities.

materialized in a dynamic coopetition context. The industry comprised many small and large actors with complex interdependencies and power asymmetries among them. While cooperation gave Permanova access to laser technology and the market, Rofin Sinar got access to cutting edge fiber optics technology and a unique coupling system patent. Although only wanting to continue in cooperation, these firms were forced by large customers such as Volvo and Volkswagen to compete against each other. In particular, Permanova with less power and control, higher dependency, and complex inter-locked relationships with customers, had to engage in developing projects with Rofin Sinar's competitors. Thus, the contextual pressure forced the firms to compete against each other while still cooperating. In this case, interviews were conducted only at Permanova, and thus our suggested propositions relate to small firms in a dynamic context.

4.2. Emotional ambivalence at different levels

We map the prevalence of emotional ambivalence at different levels in both stable and dynamic contexts, its persistency or temporality with respect to these contexts, and indicate its degree of intensity in four quadrants as shown in Fig. 3. Both positive and negative emotions are intense (i.e., strong in opposition) and similar (i.e., alike in opposition as both are strong) in quadrant (II), which means that emotional ambivalence is high (cf. Fong & Tiedens, 2002) in this quadrant. The two emotions appear to be similar (i.e., alike in opposition as both are weak) in quadrant (III) but we could not identify any interaction that represents this quadrant. We assume that emotional ambivalence is trivial or negligible here as both positive and negative emotions are low in their intensity, and thus not noticeably experienced. In such relationships, organizations are in a state whereby they do not interact in cooperation and competition in a direct and explicit manner. We, in line with Bengtsson, Johansson, Näsholm, and Ullah Raza (2013), argue that all coopetitive relationships involve direct interaction and active pursuit of simultaneous cooperation and competition between firms. Emotional ambivalence is unlikely to be experienced when firms do not recognize and appreciate that they are simultaneously cooperating and competing. In quadrants (I) and (IV), emotional ambivalence is low because both emotions are not similar in opposition such that one largely dominates the other. Emotional ambivalence is found to be low when actors do not feel torn between two conflicting emotions or when they are oriented mainly toward either cooperation or competition (cf. Fong & Tiedens, 2002).

A key point to note is that the ultimate recipients of tension are individual actors from both firms who are involved in coopetitive interactions. Thus, when we refer to tension in coopetition at inter-organizational or organizational levels, we actually refer to the aggregate/collective individuals who share collective emotions at these levels. That is why Fig. 3. includes the individual level in all quadrants where tension is experienced. Although individuals might evaluate the coopetition paradox in a different way from one another and thus feel different emotions, emotions experienced by individuals in a collective setting are not personal but collectively produced and performed (Vince, 2006). This is because they are in a similar situation (or at a particular level) and, due to emotional contagion and emotional resonance, the group as a whole feel similar emotions at an aggregate level (Boyatzis, Goleman, & McKee, 2002; Huy, 2011; Kelly & Barsade, 2001). Thus, the settings at an aggregate level of individuals can be regarded as a type of emotional incubator that produces collective emotions among individuals (Huy, 2012).

4.2.1. Emotional ambivalence at Inter-organizational level

At the inter-organizational level, whereas emotional ambivalence was found low in the stable context, it was high in the dynamic context. In the stable context, it was low because the competitive and cooperative interactions were separated between different activities. Particular actors were mainly involved in competitive encounters while others were involved in cooperative interactions. As the industry only comprised a few buyers and sellers, the firms were forced to compete

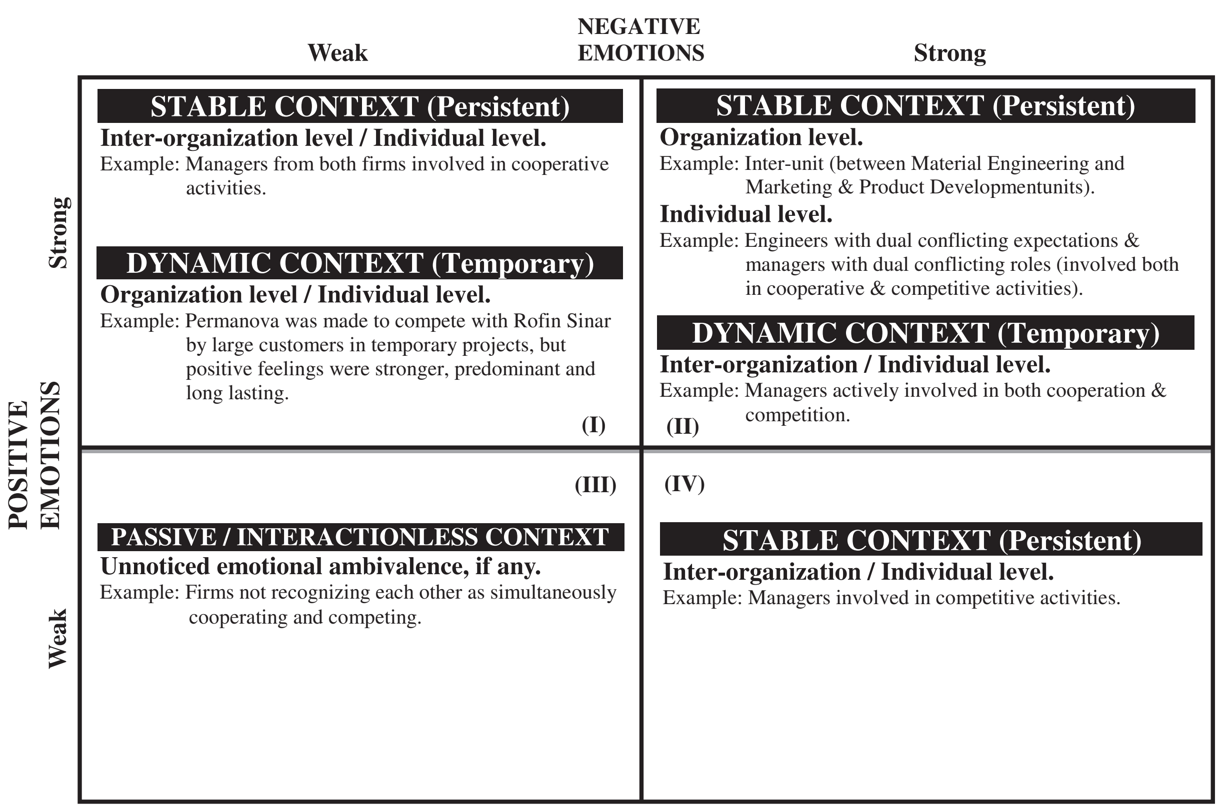

Fig. 3. Coopetitive tension (i.e., emotional ambivalence) at different levels in stable and dynamic contexts.

intensively with each other. Strong negative emotions for these competitive encounters were exemplified by comments such as:

> "Skega is getting worse and worse in its pricing strategy" (Manager at Trellex) and "We followed each other to different international markets step by step" (Manager at Skega).

Conversely, cooperating actors from the two firms experienced strong positive emotions when they worked close together for joint material development:

> "In the technical area we have a very well-functioning collaboration and the best possible atmosphere" (Manager at Trellex) and "It is very open … We have studied at the same university and met many many [sic] times in different contexts" (Respondent at Skega).

While feeling strong positive or strong negative emotions, respective opposing emotions, though pathetically feebler, were also simultaneously experienced. For instance, competing actors also appreciated the results of material development projects and expressed some positive emotions; however, pleasant emotions faded when actors were mostly and frequently occupied with strong negative emotions (i.e., quadrant IV). Actors tend to underestimate the frequency of positive emotions for two main reasons: (1) the relative weakness of pleasant emotional experience makes it forgettable, and (2) emotional distress has stronger effects than pleasant emotions, particularly when the former is salient (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Conversely, awareness that a competitor might employ unfair tactics to outcompete an actor's firm also produced negative emotions for cooperating actors. However, actors prefer to avoid bad emotions and experience good ones (cf. ibid.), particularly when the latter are salient (quadrant I). Thus at the inter-organizational level in the stable context, some individuals felt strong positive and weak negative emotions, while some experienced strong negative and weak positive emotions. They did not feel torn between the conflicting emotions as one emotion was strongly felt while the other was not. In this state, individuals feel low emotional ambivalence (Fong & Tiedens, 2002; Thompson, Zanna, & Griffin, 1995). Accordingly, we propose:

Proposition 3a. *Emotional ambivalence at the inter-organizational level is likely to be low when the coopetition paradox materializes in a stable context, as actors experience one, but not the other emotion with the same level of intensity.*

At the inter-organizational level in the dynamic context, strong positive and negative emotions were simultaneously experienced which means emotional ambivalence is high (quadrant II). Negative emotions between firms evoked when Volkswagen required Permanova to develop a detector, similar to that originally developed with Rofin Sinar, with the latter's competitor HAAS. Similarly, Volvo chose to install a Rofin Sinar laser and Permanova fiber optics in one production line but, two years later, selected a Trumpf laser for another production line investment. On this occasion, Permanova had again to cooperate and deliver parts of a fiber optic system with Rofin Sinar's competitors. Negative emotions developed as a result of such situations in which the small firm was made to compete due to its dependency on large customers:

> "We can go to Rofin and say that Lumonics have asked us if we can deliver optics to them, and we want to deliver it. Then Rofin says, 'OK!' They do not say: 'Yes!' … but they accept it" (Manager at Permanova).

Permanova felt really bad when it was forced to cooperate with its partner's competitors by the big customers like Volvo and Volkswagen. However, cooperation between the firms was characterized by strong interdependence and positive emotions:

> "The collaboration is very tight, and, in my view we have managed to bridge all concerns despite everything" (Manager at Permanova) and "It is, so to speak, another type of loyalty.… I'm a pure supplier to HAAS, but Rofin is my partner" (Manager at Permanova).

Cooperation between the firms was not based on any formal agreements but on personal relations with informal or tacit rules that guided how and when to interact:

> "When I approach Lumonics with this, I do not feel the need to inform them that I have sold it to Rofin. But I do however feel a need to inform Rofin that I'm approaching Lumonics with this" (Manager at Permanova).

In addition, actors worked hard to establish trust and positive feelings through various means such as an extended placement of a key Permanova employee at Rofin. The presence of both strong positive and negative emotions at the same time was expressed as:

> "Sometimes one can feel a bit schizophrenic, like one is pulled apart. How can we handle this situation? And it is very much one's own responsibility … it is about how we as individuals deal with these different customers" (Manager at Permanova).

Individuals who feel torn apart between contradictory demands are experiencing a state of strong ambivalence (cf. Newby-Clark, McGregor, & Zanna, 2002) that has negative consequences for the firm, if it is not managed properly (Raza-Ullah & Bengtsson, 2013). However, if emotional ambivalence is managed, it brings positive outcomes. For instance, studies report that experience of simultaneous conflicting emotions enhances creativity and performance of the firm (cf. Bengtsson et al., 2010; Fong, 2006; Lewicki, McAllister, & Bies, 1998).

Proposition 3b. *Emotional ambivalence at the inter-organizational level experienced by small firms is likely to be high when the coopetition paradox materializes in a dynamic context, as actors experience similar and intense opposing emotions.*

4.2.2. Emotional ambivalence at organizational level

In the stable context, strong emotional ambivalence was not found at the inter-organizational level; rather, it was pushed inside the two organizations (i.e., inter-unit/individual level within firms) where positive and negative emotions were similar and intense. The prevalence of emotional ambivalence at the individual level was particularly evident in situations demanding vital participation by actors in both cooperation and competition. For instance, actors occupying positions both as leaders of the firm's material development and as members of the firm's strategic management experienced this tension, which was expressed by a manager at Skega:

> "In the management team we mainly discuss about competition and how we should win on different markets" and "I have my best colleagues [he works with] at Trellex".

Competition predominated and permeated actors' strategic thinking in each firm, whereas material development was built on high cooperation and trust. Thus, actors felt torn between the contradictory logics of interactions, as expressed by one respondent:

> "If this is the current tone of voice from Trellex, then one either has to give up or play along, and that is the uncomfortable part of the whole thing" (Manager at Skega).

Therefore, actors simultaneously playing two conflicting roles were highly emotionally ambivalent as they experienced hostile emotions at the top management position on one side, and strong cordial emotions in the role played in material development on the other (quadrant II).

Individuals in the engineering department also experienced simultaneity of conflicting emotions as top management, and marketing or product development actors, imposed contradictory expectations on them. While they were expected by management to jointly create value and develop the material with the partner that evoked feelings of trust and happiness, they were asked by the marketing unit to reveal information (that was acquired via the coopetitive relationship) on their partner's competencies to enable the firm to outcompete the partner in product development, eventually creating bad feelings. Thus, they were emotionally ambivalent, simultaneously holding strong positive and negative emotions as illustrated by the following expression:

> "I may be naive and would be seen almost as a traitor, but I still believe that there is a lot more opportunity for ecumenical collaboration than what these marketing guys think; they pale just by hearing certain names [from Trellex] mentioned" (Respondent at Skega).

Contradictory emotions concerning the demands were strong, as they wanted to be loyal to their management and fair to their partner; however, at the same time, they were urged by other units to exploit the partner to their firm's advantage. Thus, the coopetition paradox in the stable context created high emotional ambivalence within the organization between units (quadrant II).

In the dynamic context, however, all employees, and primarily the strategic management of Permanova, wanted to collaborate rather than compete with their partner. Being intimately related, fiber optics and lasers were of strategic importance for the two firms, and thus demanded close cooperation in development areas. Therefore, at the organizational level, durable positive emotions dominated bad emotions as all employees largely wished for and pursued cooperation (quadrant I). Thus:

Proposition 4a. *Emotional ambivalence at the organizational level is likely to be high when the coopetition paradox materializes in a stable context, as actors experience similar and intense opposing emotions.*

Proposition 4b. *Emotional ambivalence at the organizational level experienced by small firms is likely to be low when the coopetition paradox materializes in a dynamic context, as actors experience one but not the other emotion with the same level of intensity.*

4.3. Persistency of emotional ambivalence in relation to the context

Finally, the nature of tension in stable and dynamic contexts largely differed in terms of temporality and persistency. In the stable context, the symmetry between the firms was high, the industries were concentrated with only a few customers, and the rules of the game were established and clear. Moreover, Skega and Trellex perceived buyers as buyers and suppliers as suppliers, and a customer in one market, for example, was not a competitor in another. The coopetition context was quite simple with relatively few interdependencies, as both firms were not dependent on strong owners or partners that could dictate goals and actions. Consequently, the coopetition paradox between the firms remained mostly constant, evoking stable tensions. Conversely, the dynamic context is rather more heterogeneous and vibrant with numerous players that increase complexity. It is not uncommon for one firm simultaneously to act as a buyer, supplier, complementor, or a competitor (cf. Bengtsson & Kock, 2000; Brandenburger & Nalebuff, 1996). As stated by one respondent: "it is almost impossible to delineate all actors that influence us", which proves that network complexities abound. Moreover, there are many 'power centers' in the industry that influence others, particularly small firms with less power and resources, to assume a dictated role. For instance, Permanova was obliged occasionally to cooperate with Rofin Sinar's competitors by influential players such as Volvo and Volkswagen. However, it occurred for only a short period of time in temporary projects, which means that the tension in coopetition also only lasted for the duration of the project. This prompts the following propositions:

Proposition 5a. *High symmetry, few competitors, and clear demarcations between customers and suppliers in a stable coopetition context increase the likelihood that tension will be persistent.*

Proposition 5b. *High power asymmetries, industrial complexities, and great dependencies in a dynamic coopetition context increase the likelihood that the tension experienced by small firms will be temporary.*

5. Discussion and conclusion

In this article, we advance the focus of coopetition research by examining it through a paradox lens. Using a paradox lens is important, as coopetition is a composite inter-organizational phenomenon, and thus a complex managerial practice in contemporary business settings that demand complex modes of theorization (Lado, Boyd, Wright, & Kroll, 2006). The paradox perspective enables us to juxtapose concepts of cooperation and competition, and promote the divergent thinking necessary to understand the complex and contradictory phenomenon (cf. Cameron, 1986; Lado et al., 2006). Previous research has not systematically explored the nature and materialization of the paradox in the relationship between two firms, as well as, how unifying and divergent contextual forces shape and affect the paradox. Moreover, while the extant literature acknowledges that coopetition or paradoxes stem tension (Das & Teng, 2000; Smith & Lewis, 2011), it still lacks substantial understanding on what underlies this tension, and how it develops at different levels. To fill these gaps, we develop a conceptual model explaining (1) key contextual drivers behind the materialization of a coopetition paradox, (2) the tension that arises as a result of evaluating consequences of the paradox, and (3) the location and persistency of the tension. This model is drawn on coopetition, paradox and emotional ambivalence literatures, and four case examples.

The central argument of this article is that the paradox, which materializes when competitor firms cooperate or partner firms compete simultaneously, elicits both positive and negative emotions as soon as the actors cognitively evaluate its consequences. We submit that the simultaneous experience of both positive and negative emotions forms the basis of tension in coopetition, which prevails both in the relationships between and within the firms. Based on the case examples, we argue that, regardless of the size of dualities in the coopetition paradox, individuals experience more or less tension (or emotional ambivalence) depending on their involvement in different activities. For example, even if the paradox is imbalanced in the relationship (i.e., two firms either competing vigorously with little cooperation, or cooperating intensively with little competition), individuals actively involved in both activities of cooperation and competition are more likely to experience high levels of tension. Similarly, they are likely to experience low levels of tension if they mainly perform either cooperative activities or competitive activities, despite the fact that firms pursue balanced cooperation and competition. Thus, individuals at different levels or collectives of individuals evaluate the consequences of the paradox, and experience low or high tension. Furthermore, the coopetition context plays a vital role for materializing the paradox and in deciding the location of tension at different levels, and its persistency or temporality.

We make two main contributions with this article. First, while coopetition theorists have attempted to explain the unifying character of industrial, relational, and firm-specific factors that propel competitor firms to cooperate (e.g., Gnyawali & Park, 2009; Gomes-Casseres, 1997; McCutchen & Swamidass, 2004), little is known concerning their divergent character that forces partner firms to compete. In this article, we explicate both the unifying and divergent nature of these factors, and the resulting dynamic interplay between the external boundary and the internal boundaries. These factors affect not only the strength of the external boundary and the size between internal boundaries, but also the size of dualities and sustenance of the paradox. Second, we incorporate the notion of emotional ambivalence, which is still nascent in organizational research (Fong, 2006; Rothman, 2011), into the coopetition literature. We argue that organizations involved in coopetition, in particular, are rife with emotional ambivalence because actors experience an emotional state of inconsistency as a result of their engagement in simultaneous contradictory logics of interaction. This also implies that tension simultaneously constitutes positive and negative emotions, and thus differs from a paradox. By discussing aggregate/collective emotions of individuals at different levels, we also identify that tension varies in its intensity at different levels in different coopetition contexts. For example, high tension that comprises both strong negative and positive emotions is pressed into the organization and appears between units in a stable context. However, the high tension is expressed at the inter-organizational level and appears in the relation between individuals from organizations in the dynamic context. Furthermore, the persistency of tension also differs between contexts, such that tension is more temporal in the dynamic context but more persistent in the stable context.

Although our conceptual framework and propositions are preliminary, we believe that this article will fuel fruitful discussions and guide future studies on inter-firm paradoxes and tension in several ways. First, this article develops a rudimentary understanding on what underlies tension, and thereby provides an initial platform to determine management strategies appropriate to address tension in coopetition. To manage tension, we first need to know what it is, and in this article, we argue that it comprises conflicting emotions. Thus, while devising strategies to manage tension, this aspect must be kept in mind. Second, further studies need to delve into the multi-level and temporal aspects of tension in coopetition, and also the implications that tension at different levels have for individuals, the organization, and the relationship. Such knowledge will inform managers on how tension can be addressed differently depending on its location and persistency. Finally, future research should also examine unbalanced and balanced coopetitive relationships in both stable and dynamic contexts to have a broader understanding of tension in coopetition.

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References

Baum, J. A., & Korn, H. J. (1999). Dynamics of dyadic competitive interaction. *Strategic Management Journal*, *20*(3), 251–278.

Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, *5*(4), 323–370.

Bengtsson, M. (1998). *The climate and dynamics of competition.* Amsterdam: Harwood Academic Publishers.

Bengtsson, M., Eriksson, J., & Wincent, J. (2010). Co-opetition dynamics—An outline for further inquiry. *Competitiveness Review: An International Business Journal incorporating Journal of Global Competitiveness*, *20*(2), 194–214.

Bengtsson, M., Johansson, M., Näsholm, M., & Ullah Raza, T. (2013). A systematic review of coopetition; levels and effects at different levels. *13th EURAM Conference, Istanbul, Turkey, June 26–29*.

Bengtsson, M., & Kock, S. (2000). "Coopetition" in business networks—To cooperate and compete simultaneously. *Industrial Marketing Management*, *29*(5), 411–426.

Bengtsson, M., & Kock, S. (2003). Tension in Co-opetition. *Paper presented at the 2003 Academy of Marketing Science Annual Conference, May 28–31. Washington D.C.*

Bettis, R. A., & Hitt, M.A. (1995). The new competitive landscape. *Strategic Management Journal*, *16*(S1), 7–19.

Block, R. (2007). *Live from Macworld 2007: Steve Jobs keynote.* (Retrieved August 1, 2013, http://www.engadget.com/2007/01/09/live-from-macworld-2007-steve-jobs-keynote/)

Boyatzis, R., Goleman, D., & McKee, A. (2002). *Primal leadership: Realizing the power of emotional intelligence.* Boston, MA: Harvard Business School Publishing.

Brandenburger, A.M., & Nalebuff, B. J. (1996). *Co-opetition.* New York: Bantam Doubleday Dell Publishing Group.

Cameron, K. S. (1986). Effectiveness as paradox: Consensus and conflict in conceptions of organizational effectiveness. *Management Science*, *32*(5), 539–553.

Cameron, K. S., & Quinn, R. E. (1988). Organizational paradox and transformation. In R. E. Quinn, & K. S. Cameron (Eds.), *Paradox and transformation: Toward a theory of change in organization and management*. Cambridge, MA: Ballinger Publishing.

Chen, M. J. (1996). Competitor analysis and interfirm rivalry: Toward a theoretical integration. *Academy of Management Review*, *21*(1), 100–134.

Chen, M. J. (2008). Reconceptualizing the competition—Cooperation relationship a transparadox perspective. *Journal of Management Inquiry*, *17*(4), 288–304.

Chen, R., & Li, M. (1999). Strategic alliances and new product development: An empirical study of the US semiconductor start-up firms. *Advances in Competitiveness Research*, *7*(1), 35–61.

Das, T. K., & Teng, B.S. (2000). Instabilities of strategic alliances: an internal tensions perspective. *Organization Science*, *11*(1), 77–101.

De Rond, M., & Bouchikhi, H. (2004). On the dialectics of strategic alliances. *Organization Science*, *15*(1), 56–69.

Efrati, A., & Lessin, J. E. (2013). *Yahoo pursues bigger role on iPhone.* (Retrieved August 1, 2013, from http://www.djnewsplus.com/rssarticle/SB136554649463498496.html.)

Eisenhardt, K. M. (2000). Paradox, spirals, ambivalence: the new language of change and pluralism. *Academy of Management Review*, *25*(4), 703–705.

Fong, C. T. (2006). The effects of emotional ambivalence on creativity. *Academy of Management Journal*, *49*(5), 1016–1030.

Fong, C. T., & Tiedens, L. Z. (2002). Dueling experiences and dual ambivalences: Emotional and motivational ambivalence of women in high status positions. *Motivation and Emotion*, *26*(1), 105–121.

Gnyawali, D. R., & Park, B. J. R. (2009). Co-opetition and technological innovation in small and medium-sized enterprises: A multilevel conceptual model. *Journal of Small Business Management*, *47*(3), 308–330.

Gnyawali, D. R., & Park, B. J. R. (2011). Co-opetition between giants: Collaboration with competitors for technological innovation. *Research Policy*, *40*(5), 650–663.

Gomes-Casseres, B. (1997). Alliance strategies of small firms. *Small Business Economics*, *9*(1), 33–44.

Hamel, G., Doz, Y. L., & Prahalad, C. K. (1989). Collaborate with your competitors and win. *Harvard Business Review*, *67*(1), 133–139.

Henderson, R., & Mitchell, W. (1997). The interactions of organizational and competitive influences on strategy and performance. *Strategic Management Journal*, *18*(s 1), 5–14.

Huy, Q. N. (2011). How middle managers' group-focus emotions and social identities influence strategy implementation. *Strategic Management Journal*, *32*(13), 1387–1410.

Huy, Q. N. (2012). Emotions in strategic organization: Opportunities for impactful research. *Strategic Organization*, *10*(3), 240–247.

Isaacson, W. (2011). *Steve Jobs.* New York: Simon & Schuster.

Jarvenpaa, S. L., & Wernick, A. (2011). Paradoxical tensions in open innovation networks. *European Journal of Innovation Management*, *14*(4), 521–548.

Kaplan, K. J. (1972). On the ambivalence–indifference problem in attitude theory and measurement: A suggested modification of the semantic differential technique. *Psychological Bulletin*, *77*(5), 361–372.

Kelly, J. R., & Barsade, S. G. (2001). Mood and emotions in small groups and work teams. *Organizational Behavior and Human Decision Processes*, *86*(1), 99–130.

Khanna, T., Gulati, R., & Nohria, N. (1998). The dynamics of learning alliances: Competition, cooperation, and relative scope. *Strategic Management Journal*, *19*(3), 193–210.

Lacoste, S. (2012). "Vertical coopetition": The key account perspective. *Industrial Marketing Management*, *41*(4), 649–658.

Lado, A. A., Boyd, N. G., & Hanlon, S.C. (1997). Competition, cooperation, and the search for economic rents: A syncretic model. *Academy of Management Review*, *22*(1), 110–141.

Lado, A. A., Boyd, N. G., Wright, P., & Kroll, M. (2006). Paradox and theorizing within the resource-based view. *Academy of Management Review*, *31*(1), 115–131.

Lewicki, R. J., McAllister, D. J., & Bies, R. J. (1998). Trust and distrust: New relationships and realities. *Academy of Management Review*, *23*(3), 438–458.

Lewis, M. W. (2000). Exploring paradox: Toward a more comprehensive guide. *Academy of Management Review*, *25*(4), 760–776.

Luo, Y. (2007). A coopetition perspective of global competition. *Journal of World Business*, *42*(2), 129–144.

Luo, Y., Shenkar, O., & Gurnani, H. (2008). Control–cooperation interfaces in global strategic alliances: A situational typology and strategic responses. *Journal of International Business Studies*, *39*(3), 428–453.

McCutchen, W. W., Jr., & Swamidass, P.M. (2004). Motivations for strategic alliances in the pharmaceutical/biotech industry: Some new findings. *The Journal of High Technology Management Research*, *15*(2), 197–214.

Newby-Clark, I. R., McGregor, I., & Zanna, M. P. (2002). Thinking and caring about cognitive inconsistency: When and for whom does attitudinal ambivalence feel uncomfortable? *Journal of Personality and Social Psychology*, *82*(2), 157.

Park, S. H., & Ungson, G. R. (2001). Interfirm rivalry and managerial complexity: A conceptual framework of alliance failure. *Organization Science*, *12*(1), 37–53.

Plambeck, N., & Weber, K. (2009). CEO ambivalence and responses to strategic issues. *Organization Science*, *20*(6), 993–1010.

Pratt, M. G., & Doucet, L. (2000). Ambivalent feelings in organizational relationships. In S. Fineman (Ed.), *Emotions in organizations*, *Vol. II*. (pp. 204–226)London GBR: SAGE Publications Ltd.

Raza-Ullah, T., & Bengtsson, M. (July 4–6). Tension in paradoxical relationships between firms. *Presented at 29th EGOS Colloquium, sub theme 34, Montréal, Canada, July 4–6, 2013*.

Richey, S. (2012). *Google and Apple: A history of cooperation and rivalry.* (Retrieved August 1, 2013, from http://steverichey.com/?p=1147)
Rothman, N.B. (2011). Steering sheep: How expressed emotional ambivalence elicits dominance in interdependent decision making contexts. *Organizational Behavior and Human Decision Processes*, *116*(1), 66–82.
Sahaym, A., Steensma, H. K., & Schilling, M.A. (2007). The influence of information technology on the use of loosely coupled organizational forms: An industry-level analysis. *Organization Science*, *18*(5), 865–880.
Saitto, S., Jinks, B., & Womack, B. (2012). *Apple–Google team up for &500 million-plus Kodak patents bid.* (Retrieved September 22, 2013, from http://www.bloomberg.com/news/2012-12-08/apple-joins-google-in-500-million-plus-bid-for-kodak-patents.html)
Smith, C. A., Haynes, K. N., Lazarus, R. S., & Pope, L. K. (1993). In search of the "hot" cognitions: attributions, appraisals, and their relation to emotion. *Journal of Personality and Social Psychology*, *65*(5), 916.
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.
Thompson, M. M., Zanna, M. P., & Griffin, D. W. (1995). Let's not be indifferent about (attitudinal) ambivalence. In R. E. Petty, & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 361–386). Hillsdale, NJ: Erlbaum.
Tidström, A., & Åhman, S. (2006). The process of ending inter-organizational cooperation. *Journal of Business & Industrial Marketing*, *21*(5), 281–290.
Tsai, W. (2002). Social structure of "coopetition" within a multiunit organization: Coordination, competition, and intraorganizational knowledge esharing. *Organization Science*, *13*(2), 179–190.
Vince, R. (2006). Being taken over: Managers' emotions and rationalizations during a company takeover. *Journal of Management Studies*, *43*(2), 343–365.
Vince, R., & Broussine, M. (1996). Paradox, defense and attachment: Accessing and working with emotions and relations underlying organizational change. *Organization Studies*, *17*(1), 1–21.
Wilhelm, M. M. (2011). Managing coopetition through horizontal supply chain relations: Linking dyadic and network levels of analysis. *Journal of Operations Management*, *29*(7), 663–676.
Wu, J. (2012). Technological collaboration in product innovation: The role of market competition and sectoral technological intensity. *Research Policy*, *41*(2), 489–496.
Zeng, M., & Chen, X. P. (2003). Achieving cooperation in multiparty alliances: A social dilemma approach to partnership management. *Academy of Management Review*, *28*(4), 587–605.

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