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The Role of Proximity Relations in the Integration Process into the Network: An Analysis of CEOs' Life Narratives

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Abstract

This article looks at the collaboration relations of CEOs during different phases of the integration process into a network by using various proximity dimensions. Based on the life narratives of 21 CEO members belonging to a regional network, our study underlines that three integration phases exist, within which different proximity forms are mobilised. Whereas, institutional, personal and social proximities are significant during the entry phase, temporary geographical and cognitive proximities appear to be essential for building collaboration. Moreover, if social and personal dimensions play essential roles in starting collaborations, we note that social proximity remains less decisive for joint collaborative projects. These results enrich recent debates about the dimensions of proximity. They open lines of thinking about ways to encourage the integration of new members.

Keywords: Proximity, Network dynamics, Life narrative, Qualitative analysis

The Role of Proximity Relations in the Integration Process into the Network: An Analysis of CEOs' Life Narratives

1. Introduction

Inter-organisational networks have been and remain a hot topic in strategic management science, but a serious consideration of how relationships between network members evolve is more recent. However, the understanding of how members are bound and how these bounds shift, that is to say their proximity dynamics, is crucial. At a meso-level, networks evolve, structure themselves, or peter out depending on members' ties (Ahuja, Soda, & Zaheer, 2012; Chou & Zołkiewski, 2012; Orlikowski & Yates, 2002). At a micro-level, these ties between members directly influence the beginning, the development and the end of cross-members' collaborations (Lowe & Rod, 2018). Thus, even if qualitative integration and fruitful partnerships appear to be essential for reaching common objectives, on the field, more specifically for network governance, it is difficult to identify the key factors that facilitate this process (Ooms & Ebbekink, 2018; Ooms, Werker, & Cäniels, 2018). Therefore, there is a real need to support network heads with tools that favour the integration process and actions that efficiently stimulate collaboration.

From here on, two research gaps are covered by the literature review. Firstly, the nature and role of proximity dimensions to collaborate and to innovate within networks have been investigated (Boschma, 2005; Knoben & Oerlemans, 2006; Lazzeretti & Capone, 2016; Molina-Morales, Belso-Martinez, Mas-Verdù, & Martinez-Chàfer, 2015), but most of the studies consider proximity as static. Yet, Broekel (2015) shows that proximity dimensions within a network are interdependent and jointly evolve over the network development process. Werker, Ooms and Caniëls (2016) and Balland, Boschma and Frenken (2015) also demonstrate

that proximities move over the different stages of collaboration (process, results and continuation) depending on a dynamic mechanism in which proximities can mutually reinforce themselves or, on the contrary, peter out. However, research on the upstream of the effective collaboration stage is rare.

Secondly, as shown by Capone and Lazzeretti (2018), interpersonal relationships, such as personal proximity is, according to Cäniels, Kronenberg and Werker (2014) and Werker et al. (2016), under-investigated to understand the multi-dimensionality of proximity. Nonetheless, the positive effect of personal proximity on collaboration is recognized (Caniël et al., 2014; Leszcyńska & Khachlouf, 2018; Werker et al., 2016). These researchers underline the confusion between personal and social proximity. Yet, to impulse collaboration, the prerequisite would be the willingness to work together and not only co-exist or know each other within a network (Caniëls et al., 2014). Personal proximity would be a sort of interpersonal alchemy revealed by the recognition in others of personality traits to which someone identifies himself with. Personal proximity is a key element to better understanding the collaboration processes. For example, the absence of personal proximity can limit or end partnerships, even if the other proximity dimensions are effective or optimal (Werker et al., 2016; Ooms & Ebbekink, 2018).

Our research is rooted in these gaps identified by Caniëls et al. (2014), Werker et al. (2016) and, more recently, by Capone and Lazzeretti (2018), spurred by an interest in studying human relations to better understand the relational dynamics within a network. Thus, we analyse how proximity dimensions affect cross-members' collaborations during the different stages of their integration process. We posit two research questions: 1. How do CEOs perceive proximity? 2. How do the different proximity dimensions play a significant role in the integration process within a network?

Personal proximity is under-explored due to difficulties with data collection (Cäniels et al., 2014) and access to leaders' micro-practices in inter-organisational networks (Capone & Lazzeretti, 2018). To meet our research objectives, we collected 21 life narratives of business leaders belonging to a large French territorial network.

Our study enriches the conceptualisation of Boschma (2005) and Caniëls et al. (2014), notably regarding personal proximity in non-technological networks (Torre, 2018). Our results enable us to evaluate the importance of cognitive proximity for collaborations in low-tech industries and services and empirically validate the new category introduced by Caniëls et al. (2014): personal proximity and its distinction, social proximity. Furthermore, we have found evidence that proximities are differently activated by companies throughout the phases of the integration process in the network. While institutional, social and personal dimensions are predominant when entering the network and at the beginning of the collaboration, temporary geographic and cognitive proximities seem to be essential for building effective collaboration.

This manuscript presents three main contributions. From a methodological standpoint, the originality of this study lies in the use of the life narrative method and the adoption of a dynamic approach that makes it possible to appreciate individual perceptions of different forms of proximity during the phases of the integration process in a network. From a theoretical perspective, this study extends the work on network and proximity dynamics undertaken by Caniëls et al. (2014), Ooms and Ebbekink (2018) and Werker et al. (2016) by assessing the temporal evolution of proximities during the process of integration into the network. The empirical results also enrich the conceptualization of Boschma (2005), Torre (2018) and Caniëls et al. (2014), particularly with regard to cognitive and personal proximities in non-technological networks.

From a managerial point of view, the study suggests that the governance of a network must implement differentiated actions at each stage of the integration process in order to promote an efficient integration of heterogeneous members and create favourable conditions to improve informal collaboration.

The paper is structured as follows. In section 2, we present recent literature on proximity dimensions and their role in the dynamic process of joining an inter-organisational network. Section 3 introduces the empirical setting and the life narrative method used in the study, followed by the results presented in section 4. In section 5, we discuss the results.

2. Theoretical Background

2.1. A Dynamic Approach of Networks

The analysis of networks is inherently a dynamic process (Balland, Boschma, & Frenken, 2015; Balland, De Vaan, & Boschma, 2012; Chou & Zolkiewski, 2012; Gilly & Torre, 2000), even though much of the research on the topic has been static. These dynamic systems are considered as constellations of organisations that come together through social and economic ties (Barringer & Harrison, 2000). Owen-Smith and Powell (2004) relate network collaboration to roads that enable or constrain knowledge flow among organisations. Salancik (1995) argues that ties are too often considered a given; instead, while certain ties arise, others tend to disappear. Consequently, the evolution of relationships' activation/ending/reactivation influences the structure of the network and its boundaries (Ahuja et al., 2012). These ties may be formal (R&D partnerships, patents, alliances) or based on informal and non-contractual relations. Whereas most network studies and, more specifically, studies on proximity relations consider formal relationships, the analysis of informal ties and personal bonds are highly valuable to the study of innovation and network development (Capone & Lazzeretti, 2018). In

the case of informal collaborations, the absence of contracts or hierarchy gives CEOs the freedom to embark or not on a collaboration.

Basically, network dynamics relates to changes in relations and processes over time. A processual analysis of networks considers that actors learn from others to improve their activities and change the ways in which resources are combined (Ford & Häkansson, 2006). In the same way, Ajuha et al. (2012) consider that networks have memories and that they consequently shape the network evolution. According to Ajuha et al. (*ibid*), memories enable actors to build a relational resource through previous experiences and accumulate knowledge that they have acquired in the past. Therefore, individual interactions are connected to the past and the future.

Adopting a processual approach involves integrating into studies the notion of time (Lowe & Rod, 2018; Chou & Zolkiewski, 2012) and its individual experience through the notions of events, cycles and routines (Lowe & Rod, 2018). Chou and Zolkiewski (2012) suggest the analysis of events or 'milestones events' to evaluate processes and temporal fluidity within networks. Pettigrew (1997, p. 338) defines events as a '*sequence of individual and collective events, actions, and activities unfolding over time in context*'. In this sense, milestone events correspond to events in an interactive environment that are determined by actors' individual perceptions and influenced by time and space dimensions (Chou & Zolkiewski, 2012; Schurr, Hedaa, & Geersbro, 2008). For Schurr et al. (2008), significant events are the episodes that bring changes to interfirm relationships, affecting a combination of resources and companies' activities. For instance, Werker, Ooms, & Caniëls (2016) distinguish different phases in a dynamic process of cooperation, such as the collaboration process, outcomes and continuation. An analysis of events provides a useful tool for understanding relationship connections/disconnections, such as the ties observed in proximity dimensions.

Thus, the structural dynamic of a network can be analysed through the lens of proximities. The next section presents proximity dimensions and their impact on network development.

2.2. The Role of Proximity in Network Development

Proximity is inseparable from the understanding of network dynamics. According to Balland et al. (2015), each proximity influences the development of networks, even if the significance of the influence varies over time. The notion of proximity refers to '*being close to something measured on a certain dimension*' (Knoben & Oerlemans, 2006) and appears to explain how inter-organisational collaborations take place. For Cäniels et al. (2014), collaboration is a social process between individuals who tend to interact with people they think are alike.

From Boschma's (2005) contribution, five categories of proximity are distinguished. They are geographical (physical distance), organisational (membership to the same organisation), cognitive (same knowledge basis), institutional (formal and informal rules) and social (friendship, family and social ties). However, empirical studies on proximity have sometimes shown contradictory definitions and measurements regarding the dimensions of the proximity concept (Capone & Lazzeretti, 2018; Knoben & Oerlemans, 2006). For example, Caniëls et al. (2014) have discussed the necessity of distinguishing personal (enjoying spending time together and willingness to work together) and social proximity (family and friendship bonds). Personal proximity refers to '*similarities between individuals regarding specific personality traits, the resulting behavioural patterns and the degree to which they enjoy each other's company*' (Caniëls et al., 2014, p. 227). Personal proximity is related to the personal characteristics and behaviours that can determine the 'click' between two individuals. The 'click' corresponds to the mutual feeling of acceptance of each other's ideas (Cäniels et al., 2014). Whereas social proximity is centred on the characteristics of groups, personal proximity focuses on the individuals' characteristics.

Most studies on the proximity framework take a static approach to the concept (Balland et al., 2013; Balland et al., 2015; Capone & Lazzeretti, 2018). In switching to a dynamic approach, it is crucial to analyse how each proximity dimension becomes more relevant throughout the whole process of integration in a network (from members' identification with the network to building effective collaboration). To this extent, geographic dimension is probably the least dynamic dimension, because moving to a new location implies a strong arbitrage between being closer to some actors and distant from others (Balland et al., 2015). However, the temporary geographical proximity may contribute to this dynamism (Torre, 2008) by enabling distanced people to meet, therefore affecting the formation of collaborative ties. The cognitive dimension tends to be the most dynamic dimension, since knowledge is continuously changing through reciprocal interaction between actors (Noteboom, 1999). Cognitive close partners will share overlapping or complementary expertise that may generate collaboration. In the same vein, institutional proximity is constantly adjusted as a result of discussions. Therefore, it requires mutual agreement to change institutional norms (Gilly & Torre, 2000) and create trust necessary for working together. Social proximity will contribute to creating trust among members, but is limited by the capacity of maintaining social relationships, which means that to form new social ties, individuals may quit old ones (Balland et al., 2015; Cäniels et al., 2014).

Werker et al. (2016) demonstrated that each proximity category has a different impact throughout the collaboration (formation, process and continuation among actors). More precisely, social and temporary geographical proximity are considered as enablers to access personal proximity which will help partners to exploit its cognitive proximity. Otherwise, if there is a lack of personal proximity, it can be detrimental to the collaboration and may lead to its closure (Casciaro & Lobo, 2008). The right degree of personal closeness appears to be a crucial dimension of proximity, affecting key events and capable of enabling or hampering

collaborations. Personal proximity may either increase or decrease over time. For example, when one feels that the partner's personal traits do not match, the collaboration can be limited or ended, even if the other proximity dimensions are optimal (Werker et al., 2016; Ooms & Ebbekink, 2018).

These studies support and move forward recent discussions about the dynamic co-evolution of proximities through a dyadic collaboration (Balland et al., 2015), the analysis of the industry life-cycle (Balland et al. 2013) or the role that personal and related kinds of proximities play along a collaboration process (Werker et al., 2016). Our analysis integrates the very early steps regarding the network, which implies previous events (from network recognition to effective collaboration with other members). Considering the importance of the personal dimension which is related to the individual, in this research we adopt a micro-level of analysis (Ooms et al., 2018; Werker et al., 2016) by observing the evolution of proximities and how CEOs become effective parts of a network.

3. Empirical Setting

Hereafter, we present our case study of a network that illustrates the recent discussion on proximity dimensions. First, the context of the regional network is detailed to expose the data collection followed by the data analysis.

3.1. *Context: The Case of a Regional Network*

Our research was conducted on the network 'Produit en Bretagne' (PEB). This network was founded in 1993 during a period of economic crisis by a handful of business leaders - also friends - with the aim to secure and to support the development of Brittany. As they worried about this economic situation, they wanted to give to the Breton economy a positive future. They shared a vision for promoting and investing in products manufactured in Breton. This position was thought to solicit the Bretons' civic fibre: consumers, distributors and

manufacturers. If they gave priority to Breton products and services that were of comparable quality, they indirectly supported local know-how and jobs. Over the years, the representativeness of companies in the association has widened. Although in the beginning the association mainly federated agrifood producers and distributors, today service companies, industry and cultural sector represent more than half of the members.

Our choice to study 'Produit en Bretagne' was driven by many reasons. Firstly, in the last 25 years PEB has been an example of a very attractive network for business leaders in Brittany. The proof is that since its creation, PEB has gone through a considerable growth period and now comprises, in 2020, of 434 firms. To follow the network's development, its structure is divided into four division sectors: services, production, retailers and culture.

Secondly, even though PEB encompasses a vast geographical area, it is isolated from French economic centres: there are 400 km between companies located in the furthest areas (Finistère & Loire-Atlantique) and the companies are 600 km from Paris. Since this territory is very large, the analysis of sense of proximity/isolation makes it a particularly interesting context for this study.

Thirdly, most studies on networks have focused on the formation of inter-organisational collaboration in order to increase performance in terms of innovation levels (Knoben & Oerlemans, 2006; Broekel & Boschma, 2010). However, less attention is given to non-technological forms of innovation (Geldes, Heredia, Felzensztein, & Mora, 2017; Mothe & Nguyen, 2010) and informal collaborations (Capone & Lazzeretti, 2018). As a result, the observation of high-tech innovations has limited validity at the local level, because they are reduced to a few clusters on the globe and exclude the majority of organisational networks (Torre, 2018). In this way, PEB makes sense as it is a low-tech network that includes companies

from several sectors. As such, this diversity makes the study of cognitive and organisational proximities of particular interest.

3.2. Data Collection and Analysis

The majority of studies on proximity adopts a hypothetical-deductive approach to investigating the different dimensions of proximity and its developments. Coviello (2005, p. 42) suggests that researchers want to understand how networks evolve from an historical perspective: '*Research on the dynamics and processes of entrepreneurial firm networks requires a holistic and humanist approach including observation and in-depth interviewing of entrepreneurs within their own environments and over a period of time*'. Considering the rich debate about the definition of proximity dimensions, it seemed essential to explore how CEOs perceive the concept of proximity throughout their enrolment process into the network. In doing so, we have selected the life narrative method as a specific qualitative approach.

Life narrative was first used in the 1920s by the 'Chicago School' sociologists. Anchored in ethnology, this qualitative approach helps to gain an understanding of social phenomena (Joyeau, Robert-Demontrond, & Schmidt, 2010). French researchers began to employ life narrative later in the 1970s as a contrast to the leading positivist paradigm that denied the complexity and subjectivity associated with social phenomena. Life narrative corresponds to two research objectives: (i) to study a research field considered to be underexplored. The research hypothesis is not definitive and (ii) as a comprehensive and narrative approach, life narrative highlights the perception of how an individual lives an experience. Applied to our research, this historical and singular storytelling allows us to produce the individual and/or organisational trajectory into the network.

To ensure the reliability of the research, triangulation was required to correlate a series of independent data (Joyeau et al., 2010). Moreover, we ensured the credibility criteria on three levels: truth value, consistency/neutrality and applicability (see Appendix).

Thus, our research process was determined by many phases (Figure 1).

FIGURE 1 ABOUT HERE

In 2014, we began to collect data about the network in order to better understand the research context, such as its history, governance, strategy, leadership (past and current) and culture. We also collected data to understand the structure (committees organised around activity sectors and management area: corporate social responsibility, human resources management, marketing, finance) and the selection process to determine what is involved in becoming a member of this network. Thus, we conducted a series of 32 face-to-face meetings. Although there was difficulty gaining access to extremely busy CEOs, these encounters were crucial to understanding their individual perceptions about the network and its members, notably their personal relations, which is hard to evaluate through quantitative methods. We had three collective interviews with (i) the current administrators, (ii) the head of the corporate social responsibility committee and (iii) PEBs employees. The exploratory interviews allowed us to conduct some non-participant observations during the collective meetings (annual meetings from 2015 to 2020). Finally, from the end of 2015 to May 2017, we conducted 21 managers' life narratives to better understand (i) the leader's motivation for joining the network and the integration process, (ii) the relationship between network governance and member companies and finally (iii) the benefits of joining the network.

Our sample was built to reflect the composition of the network population in terms of firm size, activity sectors and geographical location (Table 1).

TABLE 1 ABOUT HERE

The majority of interviewed CEOs managed SME companies with fewer than 150 employees and specialised in the service sectors. We note that the proportion of consumer goods manufacturers is slightly lower in the network due to the rapid saturation of narratives. In contrast, it took longer to reach saturation for service companies because of the diversity of activities (training organisations, banks, insurances, digital firms). Rather than focusing on the companies' positions within the network (central or peripheral), companies were selected based on the date of their integration into the network in order to analyse their integration process.

Interviews lasted between 40 and 120 minutes and were fully transcribed before being analysed by themes with NVivo 11 (Schreier, 2014). We chose NVivo 11 for three reasons: (1) to easily identify and to create the analysis categories, (2) to extract, to classify and to prioritize the verbatims, (3) to support the analysis collaboration between authors 1, 2 and 3. For the sake of rigour, we provided a concrete description of how categories and codes were formed iteratively (Gibbert & Ruigrok, 2010). We first analysed the proximity dimensions: geographical, institutional, social, cognitive, organisational, and personal. From the historical key events perceived by the CEOs, there emerged a code that led us to reinterpret the data, compared to the initial interpretative framework. We thus transformed the coding and recoded (Bacharach, Bamberger, & McKinney, 2000) the 21 interviews binding the types of proximities, as well as the CEO's events trajectory into the network (Martin, 2005). To ensure the credibility criteria for qualitative research, we analysed the data grounded in the field and re-checked to determine if the theory made sense. On the basis of the data triangulation (collective interviews, observation and life narratives), we discussed (twice in 2017 and 2019) our results with the

PEB board (directors and board members) to add the management implications of the research to the discussion.

4. Results

The results are divided into two main parts. In the first part, we present the CEOs' representations of proximities during collaborations within the network. In the second part, we analyse the results according to life narrative themes: motivations for joining, the relationships with the network and the contributions and expectations as a member.

4.1. The CEOs' Narrative of Proximities

The preliminary presentation of empirical data follows Boschma's (2005) and Caniëls et al.'s (2014) classification: geographical, cognitive, organisational, institutional, social and personal. The results, presented in Table 2, provide an in-depth analysis of different proximity implications for CEO members of the network.

TABLE 2 ABOUT HERE

The CEOs' representations of proximities led us to adjust our grid of analysis. We completed the geographical dimension description by including temporary geographical proximity, as demonstrated by Torre (2008). Considering the spatial distances in the network, most encounters take place during seminars, assemblies or other events. The feeling of isolation refers to the distance between companies located close to the economic centre (around Rennes) and the ones located far away.

In the case of PEB members, we observed a considerable heterogeneity of firms in terms of size and sectors and, consequently, a very low organisational proximity between them. Furthermore, the cognitive dimension should be adapted to the kind of knowledge that is transferred within the network (managerial and market-related). Institutional dimension

concerns the formal and informal rules which can regulate and influence the interactions between individuals. Here, we found the relevance of a shared system of values which is the common ground among CEOs (hard work, solidarity, resistance, outspokenness and integrity). The formal rules are associated, especially in agribusiness (farmers, retailers, manufacturers), to specific French and European laws referring to food production.

Social and personal proximity outlines the human dimension of the concept, but they differ at the level of analysis. At the meso-level (network), social proximity refers to the sense of community, the desire to work together, reciprocity and trust-based relations. As described by the interviewees, being part of the network acts as a filter for potential collaborations; people share the same values, know and can trust each other. This dimension actually differs from personal proximity, because it embraces (potential) collaborations between partners belonging to the same professional or social networks.

At the micro-level, the human dimension is represented by personal proximity (Caniëls et al., 2014; Ooms & Ebbekink, 2018; Werker et al., 2016). We observed two CEO behaviours concerning personal proximity. On the one hand, it creates intense personal proximity with governance members (current and previous board members) with whom they first develop contacts upon entering the network structure. On the other hand, the relationship with other CEO members reflects a deliberate balance between personal preferences and commercial interests.

Box 1. Personal Proximity as the Starting Point for a Fruitful Collaboration

These two CEOs – both Finistériens (same part of Brittany) - shared the vision that it is important to support the 'Made in Finistère' to develop the local economy. *'Produit en Bretagne is currently the biggest association and the biggest Britain network if we speak of the population and the sales revenue: enormous!*' (Service 7). They share the ambivalent perception of a conqueror network but are sometimes dated: '*It's a good way to put into local products and services, but at the same time I find their way of communicating and managing the network quite traditional, if not outdated. It's just what I feel*' (Service 1).

Thanks to the frequency of the exchanges shared during meetings, they took pleasure in working together. Their commitment to corporate social responsibility at PEB led them to build a collective skill by sharing their common values, such as human respect and environmental concerns. They shared the same outlook in horizontally managing their companies, with a participative leadership style.

Both CEOs head innovative SMEs. Thus, they have developed a sort of affiliation; a desire to collaborate. '*Our activity consists of print books, and the core skill of the other company is augmented reality. Our partnership is the wedding of our activities that have led to this product'* (Service 7); '*The product is an augmented reality book made with several artists from Brest. We decided to split the bill in two. As such, it's also a financial partnership. And, at the time, the other company uses this book to demonstrate how useful the interactive paper is to its clients'* (Service 1).

4.2. How do CEOs Become Part of the Network? Proximities and Phases of Integration

The PEB network is going through a decisive phase of its development. Given the growing number of members, the main challenge is coordinating an effective integration of new companies into its collaborative projects (sectoral meetings, workgroup on best practices, marketing co-branding, etc.). The effective integration of CEOs is not a natural process. Network size and the heterogeneity of firms increases the complexity of coordinating members' distinct interests.

Accordingly, to better understand how CEOs perceive proximity ties, we introduced a processual analysis of integration into the network: 1) The recognition and the entry into the network, and 2) The integration into collaborative projects. These two phases recreate a temporal perspective of the arrival of companies into the network. From a dynamic perspective, at every stage, we have identified the main dimensions of proximity and its effects on CEO behaviour towards the network.

4.2.1. Network Recognition and Institutional Proximity

In our study, we have emphasized that Breton collective values play a major part in organising the collective action of local companies. Also, the challenges linked to the physical distance

from economic centres reinforce this shared position of 'resistance' against national lobbies that could be detrimental to local companies.

The recognition of the PEB network is intimately related to the participating companies' shared values and legislation (mainly the agribusiness sector): *'The initial desire was… it is a network in terms of values that speaks to us. We recognize each other, we are Breton, we were born here, the company is from here, the majority of our customers are in Brittany and that speaks to us. It's a sort of identity or territorial claim and also, the pride of being Breton in a sense. [...] First, it was a person who recognized himself in what the network said, who felt that the company had its place and was legitimate ... The markers were actually present'* (Service 4).

One of the most important shared values for members is the protection of local employment and the Breton economy, which implies solidarity between peers as well: '*We promote inclusive employment, fair-trade, to support companies to maintain wealth locally'* (Service 9).

Moreover, relations underline the authentic character, the outspokenness, built from trust-based ties between companies: *'In Brittany, I feel that it is not the words that speak your mind, but the actions. If you come here saying 'I've seen it all, I've done it all, I'm the best', I'm not sure that it will be accepted here'* (Service 7). The shared values also describe a code of ethics to avoid opportunistic practices: *'The network set up a filter. Today, we know that if a company takes part in the club, it fulfils all the values criteria'* (Retailing 6).

Our data reveals that, with different intensities, all respondents reflect these deontological positions before entering the network. Thus, the institutional proximity actually pre-exists and by promoting these values PEB attracts new companies that share the same positions. The network uses a lot of territorial markers in its external and internal communication. These act with future members and current members as reminders of the cultural roots of the network. For example, the network's logo can be seen as a beacon, a symbol of resistance and hope for

sailors. In its communication, the Breton flag, the Breton language and the 'sailor' representation are omnipresent.

4.2.2. Network Entry and the Human Dimension of Proximities

Our results indicate that CEOs give great importance to human relations. Social and personal dimensions of proximity deal with the human aspects at the collective and the individual level, respectively (Caniëls et al., 2014; Werker et al., 2016; Ooms & Ebbekink, 2018). Social and the personal proximities act as the first step to enrolling in the network and becoming an official member. Both dimensions encourage communication and enable closer interaction and collaboration.

In respect to social proximity, members are in fact formalising the integration in a sort of community where they recognise each other. The network provides a common ground where '*it's easier to meet someone if you are a member. You are part of the club'* (Service 1) and *'when you have an investment project, banks are more confident if they know you are a member [of PEB]'* (Production 1). Overall, trust-based ties and fellowship remain the basis of exchange respected by members. Although the social dimension is not a determinant, it can enable potential collaborations with other CEOs.

Our results reveal that the members' social proximity levels are elevated ('*being part of the club*') but developed in different ways. Social ties are stronger between members of the same geographical area or industry. For example, companies located in the Finistère area and those from the agribusiness sector tend to develop a more intense community spirit, they are the '*old club members*', and participate more frequently in collective activities. On the other hand, companies located in other areas or coming from services or retailing sectors, which are more dispersed, tend to develop social ties with random members and the board.

Members' informal collaborations depend on personal interactions and rely on trust rather than on contracts or control. Companies develop non-hierarchical relationships with members and

the board: '*What's the director's role? Meeting people, listening to people on the ground, not just the CEOs but also the staff. […] You go out and ask them: 'What are you doing? Can you explain it to me?' So, they explain their job, and you see how passionate they are'* (Board Member).

On the personal level, our results report the important role of governance, represented by board members. They benefit from face-to-face encounters with members and have specific personality traits (charisma, kindness, benevolence, diplomacy) that contribute to people's engagement in the network. Indeed, when members refer to the PEB network, they often talk about board members and their personal relations with them: *'Do you know [board member]? She's a friend of mine, we know each other very well. [PEB] It's a network wherein we made extremely important encounters'* (Service 8). We can say that the director and the president of PEB (current and previous ones) benefit from face-to-face meetings and listening to CEO members. This contributes to constructing personal proximity and to developing joint solutions for local industry problems. However, the personal proximity among members remains mitigated. Whereas the willingness to collaborate is a key criterion for entering the network, companies try to find the right balance between commercial interests and friendly relations (Service 7).

4.2.3. Integration into Collaborative Projects: Building a Shared Knowledge Base

The collaborative projects can take different forms. Firstly, we observe partnerships between companies whose results are tangible: creation of a catalogue for the marketing of products, co-branding operations, co-creation of a product, etc. For example, two companies co-authored a book by pooling their knowledge or resources (see Box 1 and Table 3).

Secondly, members can collaborate more informally and access more intangible results. For instance, members collaborate to organise communities for best practices exchanges (working group on legal market requirements, CSR, Human Resources Management) to share

information about new markets or exportation opportunities, to exchange tacit knowledge and to collectively improve their businesses processes: *'Can we share our business address book? You work with this retailer, I don't... Do you have a name to give me, a contact, someone that I could possibly contact on your behalf? If we exchange information, it would make it easier for me to enter this market and continue to build my business model'* (Production 5). The outputs of these collaborations are not easy to measure as in an alliance for product innovation because they often rely on long term relationships for intangible outputs.

Once in the network, CEOs will not automatically collaborate. Temporary geographical and cognitive proximities appear as crucial elements of this phase if personal proximity is already acquired. As has been pointed out, geographically co-located partners are more likely to collaborate than partners located far apart. However, taking into consideration the distance between companies, regional meetings are organised to enable exchanges between members. In this way, a temporary geographical proximity is created which illustrates the willingness to get together. At the same time, temporary geographical proximity favours joint projects and also helps to maintain the personal and social proximity developed at the beginning: *'Now, I find that's a question of human relations, which is why I go to the PEB events'* (Service 5).

The leading collective project is the work on the territorial label called 'Made in Brittany' where companies from different sectors together promote their products in the market. Therefore, these CEOs have found a balance between similarities and heterogeneity in their market-related knowledge (logistics, packaging, communication): '*We share our concerns on supply and so you can buy packaging to put your chicken in, and I buy packaging to put my beer in. 'Could we exchange information on that?*' (Production 3).

FIGURE 2 ABOUT HERE

Our study suggests that members may manifest an interest in joining the PEB network (network recognition) because it strongly communicates common local values and enhances CEOs' identification. The following step corresponds to the network entry. We suggest that social and personal dimensions have an essential role in starting collaboration. However, this proactive behaviour is positively influenced by cognitive and temporary geographical proximity.

TABLE 3 ABOUT HERE

5. Discussion

The aim of this research was to refine the understanding of proximities, particularly the personal dimension, through a dynamic perspective of networks. We also sought to understand how proximity is recognized during the CEOs' integration process within a network. On the basis of how CEOs empirically perceive proximity dimensions, considering their heterogeneity (sector, size), we analysed these perceptions throughout the integration process into the PEB network.

5.1. CEOs' Life Narratives and the Meaning of Proximity

As emphasized by Capone and Lazzeretti (2018) and Knobens and Oerlemans (2006), there is still a lack of clarity when defining proximity categories. Thus, thanks to the CEOs' life narratives (Joyeau et al., 2010) and a specific empirical context, our study contributes to the knowledge of the proximity framework (Boschma, 2005) through gaining a better understanding of integration and the engagement process of CEOs in a network, employing a micro-level approach. In this way, our first contribution is methodological. Perceptions and meanings of proximity can become very complex, considering the variety of actors and situations within a network. The CEOs' narratives contributed to creating a more complete picture of how they interpret proximity bonds with other members. Through these interviews,

we recreated their historical trajectory of engagement and integration within the network, which will be developed further.

From a theoretical point of view, our second contribution was to understand what underlies these proximity levels for CEOs in a low-tech, heterogeneous network with predominantly informal collaborations. Following the suggestion of Balland et al. (2013), we went beyond taking a monolithic approach to the networks. The empirical data allowed us to suggest some adaptation to the Boschma (2005) and Cäniels et al. (2014) proximity framework by integrating the relevant categories of proximity and related definitions with the PEB network. First, regarding *cognitive proximity*, a majority of studies have focused on collaborations based on technological knowledge transfer (Torre, 2018; Mothe & Nguyen, 2015). We decided to readapt this concept to an incremental innovation that regards managerial innovation (Geldes et al., 2017; Torre, 2018). Secondly, we showed the importance of *temporary geographical proximity* (Torre, 2008) in maintaining the dynamics and the unity of a network covering a vast territory such as the Britany area. As discussed by Mattes (2012), this dimension is more important in the case of exchange of tacit knowledge and can be difficult to formalise through informal and face to face exchanges, as in our study. As do Cäniels et al. (2014) and Werker et al. (2016), our results highlight the relevant distinction between social and personal proximity. We reveal two types of relations of personal proximity with different stakes: on the one hand, between members of future market collaboration and, on the other, between companies and members of the governance for political issues in the network. Regarding this latter dyadic relation, we noted strong personal proximity, which corroborates the work of Ooms and Ebbekink (2018).

5.2. The Evolution of the Dimensions of Proximity and the Integration Process into the Network

The dynamic approach to networks and proximities lies at the heart of the proximity school (Balland et al., 2015; Torre & Rallet, 2005). While it is not clear whether proximity dimensions evolve and affect each other (Capone & Lazzeretti, 2018; Ooms et al., 2018), Werker et al. (2016) have empirically demonstrated that collaboration is actually a dynamic process by distinguishing different phases: collaboration, process, outcomes and, finally, continuation. Our work is in line with the studies of Caniëls et al. (2014), Werker et al. (2016), Ooms and Ebbekink (2018) and Capone and Lazzeretti (2018), however, it is applied to a network with heterogeneous sectors.

Firstly, according to our results, the process of integration of a company into a network has a new phase: *network recognition*. During this phase, the identification of the territorial network is contingent on regional values and culture: local development, solidarity, the Breton language and identity. So, institutional proximity exists before entry into the network and is, therefore, particularly important during this first contact, which precedes the company's engagement in the network. The CEOs are interested in the network if they recognise shared values. The more such values are similar, the more CEOs want to join the network.

Secondly, we show that the human dimensions of proximity (social and personal) are the *sine qua non* conditions for admission. Being personally acquainted with other CEOs and willing to work with them creates a friendly atmosphere during regional meetings. As stated by Ooms et al. (2018), social and personal proximities are the 'glue' that binds members of the same network. Our results state the significant role of personal proximity that can be characterised as magnet ties, leading members to be attracted on the basis of their perceptions of similarities or synergies due to personality traits and common sense (leadership, for example). This

personal relationship is especially strong among governance members and works as a tool to regulate CEOs' behaviours who feel personally committed to them.

Recent studies have demonstrated that personal proximity has a positive influence on collaboration and innovation within a network (Caniëls et al., 2014; Leszcyńska & Khachlouf, 2018; Werker et al., 2016), while other authors point to the negative side of personal and social proximity because of the lock-in effect (Contreras & Romero, 2018). In this sense, Ooms and Ebbekink (2018) highlight the existence of a 'sweet spot' where actors 'click' and feel sufficiently close to each other in order to get involved. Considering the network particularities (heterogeneous companies with different cognitive levels of proximity), including personal proximity deepens the collaboration analysis. However, we note that social and personal dimensions are activated at different moments of the integration process. When CEOs become official members of the network, social proximity becomes more relevant thanks to the actions carried out by the network to integrate the newcomers, such as general meetings, group activities and theme seminars. Then, in some cases, the CEOs may 'click' with other members. As such, the dynamic analysis of proximity relations is necessary to identify these inherent differences and the co-evolution of social and personal proximities (Capone & Lazzeretti, 2018; Ooms et al., 2018).

Thirdly, in comparison with Werker et al. (2016), we question the importance of geographical proximity in the first phase of the integration process. For these authors, temporary geographical proximity is essential at the beginning of collaboration. In fact, we found that joining the network does not require regular face-to-face meetings. However, geographical proximity, especially temporary proximity, appears particularly important in the third phase for future collaborations. Once the CEOs have started their collaborations, they take the initiative to organise temporary meetings with each other (such as local meetings or workgroups or general assemblies). An effective collaboration between members seems only

to be possible if there are personal encounters, even temporary ones, in order to share very practical knowledge.

Considering the coevolution of proximities, we suggest that each dimension of proximity follows a cumulative process (Capone & Lazzeretti, 2018; Werker et al., 2016). That means that whether or not institutional proximity is crucial at phase 1, it remains important throughout the following phases of integration and collaboration. The same consideration holds for the other dimensions (social, personal, cognitive and geographical).

In the particular case of PEB where members are autonomous and where informal collaborations for collective action predominate, we suggest that personal proximity has an important role to play just before the participation of members in effective joint projects. Taking part in these actions requires proactive behaviour which does not rely on (contractual) coercivity. Individual characteristics will favour or not the willingness to work together and expend the precious time of SME owners. Very often, the outputs of these projects are not immediately visible or are very difficult to evaluate (improvement of managerial practices, advertisement on new markets, etc.), which means that short term results are not the first motivation for collaborating, but the social and, most importantly, the personal closeness which allows them to assess whether or not partners 'click'.

Finally, the dynamic analysis of proximity relations at the individual level contributes to the understanding of the network evolution (Ahuja et al., 2012; Lowe & Rod, 2018). As relationships end and may be reactivated, it underlines the flexible nature of networks and synergies between actors. By including the temporal analysis of the integration process (key events/phases), we had access to a useful tool to evaluate the individual relations and the impact on the network boundaries and structure (Chou & Zolkiewski, 2012). Considering networks as systems that change provided us with a privileged point of view by which to observe such an evolution throughout the analysis of proximity relations.

5.3. A Micro-Level Analysis to Propose Managerial Implications

The collection of CEOs' singular stories as a form of sense making (Weick, 1995) is a relevant approach for comprehending how they perceive network relationships and their dynamics. More specifically, the analysis of the 21 CEOs' life narratives refines the distinction between personal and social proximities. The qualitative approach also aids in identifying their singular significance compared to the other dimensions in the different steps of the integration process. These results allow for the development of a schema depicting the governance's levers in facilitating proximities at different steps of the CEOs' integration into the network.

From a managerial point of view, considering the key role that proximity plays at each stage of the process of integration, we suggest a number of actions to promote effective integration for members. For example, these propositions may provide network governance and are illustrated in Figure 3.

FIGURE 3 ABOUT HERE

6. Conclusion

In this study, we adopted a CEOs' narrative approach to enrich the conceptualisation of proximity within networks. Our research makes several noteworthy contributions. At the conceptual level, we have enriched the proximity framework (Boschma, 2005; Caniëls et al., 2014) by analysing, using qualitative data, the different dimensions of proximity perceived by CEOs and their changes over time. We have especially contributed to the distinction between social and personal proximity by contextualising actors' actions (key events) over time. At the methodological level, the life narrative method enables us to deepen the proximity concept adapted to this original empirical field. Employing this method, we analysed a very individual perception of proximity and its relation to business collaborations. Thus, this method was used

to grasp the whole process of integration into the network by reconstituting the past trajectories and including the CEOs' present and future expectations in the network. Lastly, this study provided relevant recommendations for managerial actions that may help the integration of new members in the network.

Nonetheless, this research has some limits. First, our study analyses a single network. For future research, covering several networks could expand the generalisability of the results. Second, as the literature explains, CEOs' partnerships tend to evolve over time, creating different effects, even negative ones. A supplementary data collection over the coming years to capture the evolution of the network investigated could shed light on this circumstance. For example, the rich information about 21 CEOs could be the first step toward a quantitative and longitudinal study to confirm our main results on the integration process within a network from a dynamic approach of proximity. Another research perspective would be to study, taking a longitudinal approach, effective collaborations (dyads) into the network, through the lens of personal proximity, to refine the state of knowledge on this dimension (stability, variation, conflicts, conciliation, for example).

Disclosure statement

No potential conflict of interest was reported by the authors.

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APPENDIX 1 ABOUT HERE