Sociomaterial features of interorganizational workplaces.
Affordances of a coworking space

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Résumé :

Our theoretical concern centers upon the way workplaces afford the development of business relationships in an interorganizational work environment. We adopt a sociomaterial perspective of a coworking space to better understand new organizational contexts of work. In a case study, we elaborate on Fayard and Weeks' concept of affordance (2007) at two levels: place and space. We identify six affordances that are rooted in social and spatial properties of some bounded places and of the coworking space as a whole that may support interorganizational interactions on a regular basis. We highlight the importance of taking into account the temporal dimension in the affordance approach. We conclude on the role of the management team that operates the coworking space in nurturing these affordances.

Mots-clés : coworking; affordance; proxemics; space; place; interorganizational

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The literature on spatiality in organizations (Dale & Burrell, 2008; Hernes, 2004; Kornberger & Clegg, 2004; Warf & Arias, 2009) has grown significantly in the last 15 years in management and organization studies (MOS), to the point where researchers are speaking of a spatial turn in MOS. It is unanimously recognized then that the material and social dimensions of organizational spaces are mutually constituted and experienced within a work context. Organizations are spaces and places of work (Delbridge & Sallaz, 2015). In this paper, space is used to refer to the organizational space as a whole and place as a bounded form in an organizational space.

Embedded in the larger field of materiality of organizations (Ashcraft, Kuhn, & Cooren, 2009; Carlile, Nicolini, Langley, & Tsoukas, 2013; de Vaujany, Hussenot, & Chanlat, 2016; Leonardi, Nardi, & Kallinikos, 2012), the spatiality stream of research in MOS especially emphasizes the interplay between workspace and work activity. But, these links are mainly analyzed at the individual level and within particular organizations. In the era of the sharing economy (Schor, 2014) and open innovation (Bogers et al., 2016), it is important to dig into interorganizational dynamics and their spatial dimension. Today's work environment is rapidly changing, particularly because of new technologies (Colbert, Yee, & George, 2016). Work activities are becoming more and more collaborative and involve actors belonging to various different companies. Nonstandard work arrangements, such as temporary, part-time, remote, or mobile work arrangements, are increasingly common (Ashford, George, & Blatt, 2007; Connelly & Gallagher, 2004). Coworking spaces are good examples of these new workspaces that can satisfy independent workers' need for both digital and social connection and autonomy (Garrett, Spreitzer, & Bacevice, 2017; Leclercq-Vandelannoitte & Isaac, 2016). It is important therefore to explore the sociomaterial features of interorganizational workplaces and workspaces to better understand new organizational contexts of work. Specifically, we are eager to grasp how interactions between different individuals and firms may develop over time in coworking spaces to contribute to the spatiality literature in MOS

and shed light on the interplay between these interactions and the space and place where they happen.

For this purpose, we build upon Fayard and Weeks' notion of social affordances (2007) to analyze how informal interactions take place within a coworking space. We combine it with Hall's notion of proxemics (1966) to explore what produces coworking spaces. We study the case of a large pioneering coworking space in France, called La Ruche. An in-depth qualitative and longitudinal study approach enabled us to collect rich empirical data, and helped us to identify which material and social properties of the organizational space may influence the interactions of the people and businesses it hosts. We argue that these interaction dynamics are supported by three specific affordances of La Ruche's coworking space—commonality, inclusion, and gathering—in addition to the three affordances highlighted by Fayard and Weeks (2007) of some specific places in La Ruche—proximity, privacy, and social designation.

First, we contribute to the spatial turn in MOS by elaborating on the concepts of affordances of place and affordances of space. We demonstrate that place is not a static entity, since it is materially and socially produced through day-to-day intended and unintended uses of space. The new concept of affordances of space allows us to explain the development of interorganizational interaction dynamics, not just intraorganizational. Space is not a neutral shell for work activities; its affordances can foster or inhibit interactions between workers and organizations. Furthermore, this concept takes into account the temporal dimension of a situated working experience and interaction dynamics over time.

Second, our findings have strong empirical implications for understanding the fast growing success of coworking spaces worldwide. We investigate what it means to run a coworking space and stress the importance of the management team of such a workplace to support and maintain affordances for interaction. Implications for coworking managers who strive to co-construct a sense of community through day-to-day interactions within the space (Garrett et al., 2017) are crucial.

This article is structured as follows: First, we review the literature on spatiality in organizations to understand what we might learn by studying coworking spaces. Second, we present the empirical investigation and the case of La Ruche. Third, we show how the notion of affordance helps understand the development of relationships and we mobilize it both at the place level and space level. Fourth, we conclude by discussing the proposed links between space, place, and interorganizational interactions, as well as our theoretical contributions and

the generalizability of our findings. Finally, we suggest further avenues for research in exploring the spatiality of organizations and the intriguing growing phenomenon of coworking.

1. SPATIALITY OF ORGANIZATIONS

The field of spatiality comprises two main research streams, both of which analyze the intertwining of material and social dimensions, but emphasize different determinants. The sociomateriality stream (Leonardi, 2012; Orlikowski & Scott, 2008) focuses mainly on the role of artifacts mobilized in work activity, like social media or PowerPoint presentations. The organizational space stream (Taylor & Spicer, 2007; van Marrewijk & Yanow, 2010) questions the relationship individuals have with space, and studies buildings, offices, etc.

Within the prolific stream on sociomateriality, the concept of affordance has been developed and applied to organizational spaces (Fayard & Weeks, 2007, 2011, 2014). Affordances are defined as a set of environmental, physical, and social conditions which function as invitations to perform a certain type of action in a place. Within the organizational space stream, the notion of proxemics (Hall, 1966) has been introduced to highlight differences in the way individuals react and use different types of places and spaces. By combining affordances and proxemics, we propose a new analytical framework to better understand the interplay between space, place, and the development of interorganizational relationships.

1.1. AFFORDANCES OF A WORKPLACE

Gibson's notion of affordance (1977) explains the relationship between the material context and the social context. In psychology, neuroscience, ergonomics, and design, the notion of affordances was originally used to describe human-machine interactions (HMI) (Norman, 1988), or more broadly human-artifact interactions (You & Chen, 2007). Affordance refers to the ability of the artifact to express its mode of use, without using words as a user guide would do, but through sociomaterial features. Users' perceptions of these features can vary and thus lead to different uses of the artifact, which underlines the non-deterministic nature of affordances.

In MOS, the theory of affordances is used to decipher human-human interactions (HHI), mainly through technology. It explains why certain systems or social networks may be used differently within the same space or used in the same way in different spaces (Leonardi, 2011;

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Leonardi & Barley, 2010; M. L. Markus & Silver, 2008; Vaast & Kaganer, 2013). A more recent area of research on affordances in MOS has focused on interactions between individuals related to the physical and social characteristics of the workplace.

In this article, our goal is to study the complex links between affordances, place, and space in a work context. For this purpose, we build upon Fayard and Weeks' seminal research (2007, 2011, 2014), which has shown how three physical and social affordances of photocopier rooms could favor or hamper the development of informal interactions in three large organizations (Figure 1). We first present an analytical description of their study, and then explain how we might extend it to an interorganizational context.
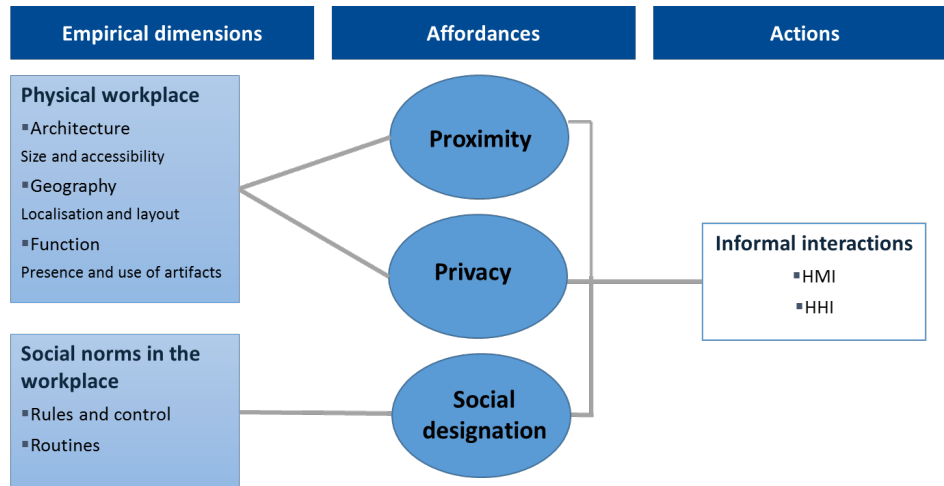
First, the authors highlight two types of informal interactions in these rooms. Some are HMI through the photocopier (e.g. how to repair it or help one another with its complex functionalities). Some are HHI, in the form of conversations, whether related to work (e.g. unplanned review of an ongoing project) or not (e.g. holiday stories). Second, they classify the empirical dimensions (physical and social) of these rooms into three categories. The "architecture" of the place mainly refers to its accessibility, size, and openness. The "geography" of the place includes localization and layout. The "function" of the place refers to the objects and artifacts therein and to the use made of them. The authors thus identify three affordances of a workplace for interaction: (1) proximity, (2) privacy, and (3) social designation. These are related to the empirical dimensions previously outlined.

(1) The proximity affordance: creating physical proximity within a workplace is necessary for individuals to meet and interact. Proximity is based on conditions of accessibility and centrality, both on the geographical level (e.g. the room is situated in the middle of the workplace) and on the functional level (e.g. the room is frequently used).

(2) The privacy affordance creates and preserves the intimacy of the interaction. Individuals must be able to interact freely, in space and time, with anyone, on any subject and for as long as they need. Privacy is based on conditions of discretion and enclosure.

(3) The social designation affordance refers to the social rules in use in the company that determine what types of interaction are appropriate. Social designation is based on conditions of comfort that make interactions possible (e.g. a room sufficiently large to avoid congestion) and of legitimacy (e.g. routines that allow interactions and their possible extension over time).

Figure 1. Fayard and Weeks' framework of the affordances of a photocopier room for informal interaction (adapted from Fayard &Weeks, 2007, 2011, 2014)

Fayard and Weeks (2007) focus on a particular type of work activity (informal interaction) that occurs in a particular place in the workplace (photocopier room) between individuals that belong to the same large organization. By applying this framework to coworking spaces, we would like to test whether it can be extended to the organizational space level—i.e. the global organization of a set of collocated places—and to the interorganizational level. Are these three affordances relevant for a coworking space to foster interactions between individuals that belong to different organizations? We need to dig into how individuals engage with space and place, make it their own, and develop new relationships. We use Hall's notion of proxemics (1966) to define how meaning is attributed to space and how it influences individuals' perceptions and interpretations.

1.2. PROXEMIC BEHAVIORS WITHIN A WORKPLACE

Hall's conception of space (1966) includes both spatial design and social process. This means that space is socially produced and at the same time produce social relations. Hall distinguishes between three types of spatial organization[1] determined by cultural conventions: (1) fixed space, (2) semi-fixed space, and (3) non-fixed space.

(1) The fixed organization of space refers to space planning and includes permanent physical features such as walls, doorways, and buildings. It is the "formative context" (Ciborra &

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[1] Hall does not only focus on workplaces, nor does he exclude them from his analysis.

Lanzara, 1994) where workers routinely engage in their business activities. Many authors have recognized that office buildings may affect individuals' behaviors (Duffy, 1997; Hillier, 1996; T. A. Markus, 1993) and have argued that they may have an impact on interaction and communication patterns influencing how and where communication takes place (Girin, 2016, pp. 245–259; Seiler, 1984). Hall highlights the importance of space congruence, i.e. the alignment between the mission of the space, its design, and its inhabitants.

(2) The semi-fixed organization of space involves the use of mobile and interchangeable features, like furniture, to promote inter-personal interactions or keep individuals out of the way (e.g. placing chairs face to face or back to back). Hall points out that even a small change in the arrangement of space and place may have huge consequences on interactions. Being able to customize space and place, i.e. to easily (re)organize materials and furniture, is crucial to creating new partitions in real time depending on the nature of the desired interaction. This "context-making process" (Ciborra & Lanzara, 1994) is possible only if space and place are flexible (Steele, 1973). "Multi-space environments" (Moultrie, Dissel, Haner, Janssen & Van der Lugt, 2007) can result from this process, offering diverse and modular workplaces (quiet zones, meeting rooms, social areas, etc.), in which people act as "illegal architects" (Hill, 1998).

(3) The non-fixed organization of space, also described as "informal space", includes a set of non-verbal behaviors maintained in inter-individual interactions. It takes into account four types of distance[2] that individuals place between them and others, whether consciously or not, depending on the type of interaction they intend to have. In a given cultural context, the distance indicates the nature of the relationship and of the individuals' social roles.

Proxemics puts the emphasis on the openness and multiplicity of space production and on the fact that it involves no predetermined process. Nevertheless Hall's analysis is centered on the individual level of a space experience and focused on culturalist grids. We need to dig into the role played by place and space by capturing in detail the day-to-day work life within the organizational space and how individuals and organizations engage with the workplace together and make it their own.

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[2] Intimate distance allows physical contact and whispering (e.g. between a couple), while public distance requires one to speak loudly and with gestures (e.g. a public figure). In the world of organizations, it is most often a matter of intermediate distances to speak normally during small group interactions, which include personal distance (e.g. between office mates) and social distance (e.g. between colleagues from different departments).

1.3. RESEARCH GAPS AND QUESTION

In Fayard and Weeks' (2007) and Hall's (1966) studies, the focus is on the relationship of an individual to a place and space and his or her activity. Furthermore, these analytical grids are based on intraorganizational places not interorganizational ones. However community-based forms of work (Beck, 2002) expand the choices that workers can make to align work statuses with work meanings, especially for entrepreneurs and independent workers. Work is moving out of the traditional office (Gregg, 2013), but still needs a place to be done (Fabbri & Charue-Duboc, 2013). New workplaces adapted to these contemporary work arrangements are supposed to help workers to be integrated in different professional networks and build business partnerships so they can bounce back in case of entrepreneurial failure or easily move from one organization to another during their career. These workplaces are thus considered as spaces for interaction between different people and organizations.

In such a changing work environment, the link between workplaces and the development of interorganizational dynamics and collaborative activities needs to be better understood. We aim to improve this understanding through the concept of affordances and the proxemics perspective and by studying which sociomaterial features of these new kind of workplaces can induce/support interorganizational interaction dynamics. For this purpose, we studied a unique case, that of a large coworking space in France.

2. MATERIAL AND METHODS

Using a single case study approach (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Flyvbjerg, 2011; Yin, 2009), we have chosen to conduct qualitative, exploratory, and comprehensive research (Dumez, 2016), based on interviews and longitudinal observations, to understand the experience of members of a coworking space and the interorganizational dynamics within which they are immersed. First, we explain how we identified and selected the case of La Ruche. Second, we show how we collected rich material and conducted our analysis iteratively.

2.1. CASE SELECTION AND DESCRIPTION

In this paper, we take space and place into account simultaneously by offering an empirical illustration of the interplay between space, place, and work activity at the interorganizational level. We chose to study the unique case of a French coworking space, called La Ruche,

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because this organizational space was conceived and designed by its founders and architects to encourage interaction between members in their day-to-day activities. Indeed, a coworking space is a relevant context in which to observe the "localized encounter of diverse individual trajectories which will disperse immediately after." (Sergot & Saives, 2016).

Launched in May 2008 in Paris, La Ruche was one of two pioneer coworking spaces in France. It is a not-for-profit organization[3] whose primary activity is to operate a 600m² open space, open 24/7 for members. It is a colorful place (e.g. orange walls, green curtains) with natural decoration (e.g. tree branches, green plants) and repurposed objects (e.g. flowerpots serving as lampshades). The business model is to provide shared services and workstations through full-time (around 400 euros per month for one desk) or part-time memberships. There are around eighty workstations, either individual or grouped in small islands. Its second activity consists in organizing workshops, conferences, and exhibitions for La Ruche members and also for external stakeholders. These two activities coexist within the same physical space.

La Ruche members are mostly entrepreneurs who are developing an innovative response to a significant challenge, either social or environmental. There is a vast diversity of entrepreneurial projects, profiles, and statuses at La Ruche. Members range from roughly 18 to 65 years of age, and there appears to be a balance between female and male members. They come from different cultures (various nationalities), and professional backgrounds (highly educated people and autodidacts). Some are serial entrepreneurs whereas others are beginners. Limited liability companies, associations, as well as freelancers may be hosted there. They go to La Ruche to work independently on their own entrepreneurial projects, but in a collective atmosphere. Hereafter, these organizations will be referred to as "ventures".

The La Ruche founders' strategic aim is to enable and empower their members by connecting them with each other and by fostering interaction and collaboration within the space on a variety of issues through informal exchanges and formal encounters. To achieve this, La Ruche combines places dedicated to work—workstations and formal meeting rooms—with convivial places for relaxation and socialization—the kitchen and informal meeting rooms called alcoves.

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[3] It is a not-for-profit organization that only received public subsidies to renovate the premises. Founded as a social business, La Ruche must maintain a balanced budget. Any surplus revenue will be used to improve the organization's outreach and services.

2.2. DATA COLLECTION AND ANALYSIS

Our research design mainly draws upon three series of interviews with La Ruche members, La Ruche's management team and its spatial designers.

We conducted a series of semi-structured interviews with 19 entrepreneurs (Miles & Huberman, 2003), currently or formerly hosted at La Ruche, making sure that the diversity of ventures and entrepreneurs' profiles was represented. An announcement was placed in the weekly newsletter sent to all the entrepreneurs hosted at La Ruche along with a call for volunteers to be interviewed. We also directly solicited interviews from people present at La Ruche during our visits there. The interviewees were between 25 and 55 years old, and seven of them were female. Coming from different backgrounds, they were either working on social issues (e.g. reintegration of the unemployed in the workforce, fighting poverty, etc.) or environmental issues (e.g. green energy, recycling, sustainable housing, etc.). Most of the interviewees were full-time members, but we also met three part-time members to make sure their experiences were not too different. We mainly interviewed current members, but also one former member of La Ruche and four people who were about to leave, in order to compare their points of view. The interview protocol was to ask the subjects about their reasons for locating their business at La Ruche and what they got out of it. In particular, we asked them to talk about some interactions they had at la Ruche, how often they interacted, with whom, where, and on what occasions. We then built some stories of these interactions in line with the life stories approach (Bertaux, 2009).

We also conducted three series of semi-structured interviews with the three full-time employees of La Ruche (one formal interview per year with each employee) to better understand their roles in the interactive dynamics at La Ruche. We asked them if and how they were interacting with members, potential clients, other kinds of organizations, etc. and if and how they try to enhance interactive dynamics at La Ruche. In addition, we interviewed three people who participated in the renovation and spatial design of La Ruche to get a clear view on the designers' intentions. We asked them for instance why they had chosen an open spatial arrangement, how they decided on the localization of the work places and the convivial places, etc.

The interviews lasted an average of 75 minutes. All the interviews were recorded and transcribed. Quotes have been translated from French to English for this paper. A thematic content analysis of the interviews and field notes was conducted using NVivo software

(version 8) according to the grounded theory principles (Glaser & Strauss, 1999) to construct a dense theory corresponding to the data collected in the field.

Furthermore, during a three-year study period, from late 2010 to mid-2013, we were considered as a member of La Ruche and used workstations there sporadically. We received the internal newsletter, the minutes of the weekly members meeting, and were invited to take part in all the events organized by La Ruche. We attended dozens of events and directly interacted conversationally with various people within the workplace before, during, and after these events, to better understand why they are at La Ruche and what they get out of it—on a planned or unplanned basis. We kept a research journal to record the facts and the places at La Ruche where interactions take place. This participant observation posture (Adler & Adler, 1987) was valuable to better understand interviewees' statements.

We made a systematic analysis of the entrepreneurs' statements regarding interactions. In this way, we identified situations during which La Ruche members interacted with other individuals and organizations. We started with inductive coding to highlight the types of interactions and the locations and moments where and when they took place at La Ruche.

We investigated how Fayard and Weeks' (2007) affordance framework might explain the interactions we observed. While they study informal interactions in photocopier rooms—that is to say in one specific place in an organizational space, La Ruche's coworking space is composed of several places where interactions can take place. Therefore, we propose to distinguish between specific places and the organizational space as a whole. We look at the affordances of specific places within La Ruche, in line with Fayard and Weeks' (2007) framework and also the affordances of the La Ruche coworking space, which support interaction dynamics over time.

3. LA RUCHE, A SPACE FOR INTERORGANIZATIONAL INTERACTIONS

In a first analysis of this material, we examine various interorganizational interactions between members at La Ruche, starting with informal exchanges. These interactions sometimes grow over time and evolve towards more formalized agreements.

All the interviewees highlight their numerous and varied interactions with other La Ruche members and associate them with the space, the availability and arrangement of some places, the ambiance, the events, and the profiles of the other members that share it. The declared intent of the La Ruche founders is to enable and empower members by connecting them with

each other and by fostering interaction and collaboration on a variety of issues through informal exchanges and formal encounters.

> "I find that La Ruche fosters informal exchanges in an operational, concrete and convivial way. (...) Helping each other is part of the game." — La Ruche member
>
> "La Ruche is a place for encounters, the transmission of information and potentially for collaboration." — La Ruche member
>
> "Here, I develop my ability to work with a network of partners. I draw on the expertise of my [office] neighbors (…). I also (…) draw inspiration from the techniques used at La Ruche in running workshops." — La Ruche member

But we noticed that these interactions are the fruit of a proactive and ongoing effort made by coworkers, not something totally prepared and guided by the La Ruche management team.

> What we are doing is just providing the context for that [seeking partnerships] to happen. And what happens within a space like this is incredible. It is completely beyond our control as founders and facilitators of the space. — Founder of La Ruche

A simple discussion between coworkers around the coffee machine allowed them to make an initial contact or to keep a relationship going in an informal way. These spontaneous conversations may lead to more structured discussions later and the sharing of information, ideas and advice, which may prove useful for the personal and professional development of the people present.

> "With a person I met during a coffee break [*pointing out the kitchen where the coffee machine is located*], I had an unexpected brainstorming session to find suitable names for my range of services." — La Ruche member
>
> "Following the weekly meeting, I talked about my project with another member, a consultant, in the kitchen. We then moved to a meeting room to continue the discussion further and ended up reviewing the overall positioning of my business together!" — La Ruche member

Some interactions might entail more of a commitment on the part of the entrepreneurs and take the form of cooperation in networking and making introductions, swapping favors (e.g. a group brainstorming session, sharing client lists) or partnerships of varying duration (e.g. co-branding of an event, joint training programs). Reciprocity is not always a given in this type of exchange, but someone who receives advice one day may later offer some to another person residing at La Ruche.

> "During the weekly members meeting at La Ruche, I learned of the existence of an association doing pretty much the same business that I wanted to launch. A La Ruche manager put me in contact with the director. Through him, I was then introduced to another association which

became involved in the development of my project, causing it to change in scale. I reframed the project and considered development over three to four years instead of the one-year development I had initially planned." — La Ruche member

"I swapped my list of business contacts with two companies residing at La Ruche because we are targeting the same market, but with different services. There is no direct competition between us." — La Ruche member

The interactions cultivated by the entrepreneurs at La Ruche help them to adjust and improve their project (e.g. revise their business plan, a marketing and communications plan, carry out consumer tests and get customer feedback). They can also lead to traditional sales activities (an entrepreneur becoming the client of another La Ruche entrepreneur).

"I'm running an employment agency specializing in sustainable development professions. (…). I try to meet and interview all the entrepreneurs at La Ruche who are experts in sustainable development. I have arranged for several La Ruche members to do work for my clients. I have also placed several colleagues, consultants, and interns in different organizations at La Ruche. Look at the client list on my website!" — La Ruche member

In the most advanced collaborations, the entrepreneurs may find partners to change the scale of their project or to generate new related activities with La Ruche members (e.g. a joint response to calls for tender, co-organization of events). In the event of difficulty or the failure of their entrepreneurial project La Ruche members can also draw support from these collaborative relationships to change direction or to find new professional opportunities (e.g. being hired by an organization at La Ruche). In addition to opportunities for growth and help speeding up their projects, La Ruche nurtures the ability of entrepreneurs to bounce back.

"I had to abandon my project and left La Ruche: no funds left to pay the membership! Then I joined a former La Ruche resident company as sales director. A year later, I started my own freelance business and then I returned to La Ruche to develop my new business." — La Ruche member

"When I arrived at La Ruche [as a startup employee] I never thought I would become an entrepreneur myself..." — La Ruche member

The working environment at La Ruche proved favorable to the development of interactions and sometimes collaborations between member ventures and with La Ruche itself, which can have a positive impact on the development of their businesses. It should be noted that the second type of interaction can be considered as a special case of the first one since La Ruche presents itself as an entrepreneurial venture in the same way as those it hosts. Members recognize the place and its mode of operation as contributors to the establishment of the

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interaction dynamics they benefit from. The role of the La Ruche team is less directly emphasized, contrary to what one might have expected from the discourse of La Ruche's founders and what happens in business incubators for instance.

4. AFFORDANCES OF LA RUCHE'S WORK AND CONVIVIAL PLACES

Informal interactions are the starting point of the various interorganizational interactions developed at La Ruche, which eventually contribute to the development of the members' businesses. Most often these informal contacts occurred in the kitchen as mentioned in the interviews. This is the reason why we wondered whether Fayard and Weeks' affordances are relevant for a place in which informal interorganizational interactions occur. Below, we synthesize the physical and social characteristics of this place based on our data.

The open kitchen is large (up to 30 seats) and located centrally near the main entrance of La Ruche. Tables and chairs are easily moveable. Unlimited, good quality coffee and tea are offered there. Mail boxes have been installed along the wall behind the kitchen so as to draw foot traffic toward the center of La Ruche. Long and loud interactions are only allowed there at lunch time, to avoid disturbing people working nearby. Kitchen users are asked to keep the space clean (e.g. wash the dishes) and ready-to-use (e.g. clear the table after using it) because everyday life at La Ruche is based on self-management. Every Friday, members have lunch together in the kitchen and share a variety of information: skills, job offers, or other things they are excited about—a kind of weekly team meeting. The kitchen is also the reception zone for guests. Visitors are invited to show up in the kitchen to wait for their contacts. As they enter the kitchen, they will find a floor plan and a telephone directory so they can locate and contact the person they have come to see. There is no welcome desk run by the La Ruche management team, and the team is not identified in the workplace. People who just want some information have to ask whoever is around, but usually La Ruche members spontaneously ask if they can help whenever they see an unknown person that seems to be lost. Notice boards with information on upcoming events and portraits of the members are also displayed in the kitchen, which gives visitors a better idea of what La Ruche is all about.

Because of these characteristics, we consider the kitchen of La Ruche to exhibit jointly the three affordances outlined by Fayard and Weeks (2007):

- The proximity affordance because the kitchen forms the heart of La Ruche— physically and socially.

- The privacy affordance because planned and unplanned interactions can occur there. People are invited to use alcoves, meeting rooms, or go to the garden if they want to extend their conversation outside the lunch time slot.

- The social designation affordance because the kitchen serves as a dining room, a meeting room, a reception room for guests, an auditorium, etc. according to the time of day and the members' needs.

Fayard and Weeks (2007) focus on informal interactions between colleagues in the same organization, whereas our work looks at interactions (between ventures and with La Ruche itself), both formal and informal, which go beyond the intraorganizational context. As mentioned earlier, the interactions outlined evolved from informal contacts to stronger commitments between ventures and these recurring interactions took place in different places within La Ruche as they developed. In addition, several members mentioned that La Ruche helped them develop interactions with various stakeholders outside of la Ruche but within the ecosystem of La Ruche.

This is why we propose to change levels and to consider the coworking space as a whole and not only as a collection of places. To do so, we combine the proxemic dimensions and the affordance perspective. Indeed, through the lens of Hall's (1966) proxemics grid, La Ruche as a whole is a fixed, semi-fixed, and non-fixed space organization where formal and informal interactions can take place.

The fixed space organization of La Ruche is a physical place located in the heart of the French capital, in a lively district, which is easily accessible by public transport (but not easy by car). The semi-fixed space of La Ruche strives to be a welcoming space for work, which is radically different from modern business centers where everything is white and stark. It is flexible and modular to allow many different work configurations. But we use the non-fixed dimension in a somewhat different sense than that described by Hall, closer to the social permission affordance of Fayard and Weeks (2007). The non-fixed space of La Ruche includes all the rules of operation that invite the members to work together on a daily basis despite their diversity. These rules aim to orient verbal and non-verbal behaviors within La Ruche. They are formalized in the clauses of the lease between each member and La Ruche organization and in La Ruche's internal rules (available on the intranet). The rules are not overly restrictive though, as they do not contain any obligation. There is no established monitoring or sanctioning mechanism.

5.   AFFORDANCES OF LA RUCHE COWORKING SPACE

Our aim was to better understand how interactions between different ventures occur in a coworking space like La Ruche over time. We then investigated the members' motivations for these interactions and their timelines. Based on our material, we articulate three specific affordances of the La Ruche coworking space: commonality affordance, inclusion affordance, and gathering affordance.

The first affordance of the La Ruche coworking space is called commonality. What is particular about the interactions observed at La Ruche is that they occur between individuals belonging to different organizations. These interactions can more easily emerge between people and organizations who have some common interests and values, for instance people who share the same kind of business issues, working styles, non-work interests, etc. Because of these commonalities, they are more likely to benefit from these interactions.

> "I was able to find business contacts for my activity because there are complementary organizations at La Ruche. We answered a call for projects for instance with two other organizations at La Ruche. As there were three of us, we could respond and be good. (…) I met my two partners several times. I trusted them because I knew them. I knew they were good at such things. And the reverse is also true. They came to me because they knew that I am good on this point. It does not happen all at once, by email. It is done by rubbing shoulders. It is all the richness of maintaining these ongoing exchanges here." — La Ruche member

These common interests and values of La Ruche members can also be captured by considering how external actors who frequently interact with La Ruche view their members, as mentioned in several interviews. Interactions outside La Ruche or with actors that are not La Ruche members are also enhanced when it is known that one is a member at La Ruche, which is well-known in the city and in numerous professional networks that are relevant for its members.

> "I obtained an interview at the Paris city council, where my professionalism was immediately recognized thanks to my presence at La Ruche". — La Ruche member
>
> "Clients are more likely to work with me even if the agency is young when they learn that we are at La Ruche. They recognize it as a leader in the field." — La Ruche member
>
> "I formed numerous new partnerships during my stay at La Ruche, more easily and quickly than before. For example, I worked with two journalists and an online channel, which were

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also La Ruche members, as well as with other actors (…) that were easier to approach thanks to my affiliation with La Ruche." — La Ruche member

Members of La Ruche mentioned the fact that they felt as though they belonged to a community.

"Being at La Ruche, the feeling that you belong to a community that upholds shared values and is moving in the same direction — that keeps you from getting discouraged by the thought of pounding the pavement on your own, heading into battle by yourself." — La Ruche member

"It's a space that represents the diversity of entrepreneurial approaches, where the interdependence of subjects allows you to cross into other areas, to move beyond your own work habits. (…) In that sense, it is beneficial to connect with others every day. By listening to them, I have discovered a lot of new things outside my line of business." — La Ruche member

Workplace decoration also reminds members and visitors that La Ruche is rooted in green and social ventures. The congruence of design elements and the activities that take place there (e.g. design of an open space decorated according to codes and values that are easily associated with the scope of the business activities hosted there) plays an important role in demonstrating commonality.

"The geographic location and the premises… You know, the eco-designed space thing, the hipster decoration… They are a good match with the positioning of my business." — La Ruche member

To maintain a degree of commonality between members in terms of the goals pursued and values shared, La Ruche has implemented a selection process for new members. The aim is not to select the "best" projects through a business lens, even though attention is paid to the realism of the business model, but rather to host those that the group may help to grow. A free trial working day at the coworking space is a mandatory step of the selection process. It is not a matter of merely approving an application; the selection process leads to a form of dialogue and mutual adoption. The resulting commonality between members constitutes a favorable breeding ground for interactive and cooperative relationships between member ventures and with external ventures.

The commonality affordance thus relies in particular on the ability of the La Ruche team to communicate common aims they are pursuing to stakeholders and potential members and to select new members accordingly.

"I really felt like I was selected. It has rather reassured me for security matters, confidentiality issues, the financial viability of the projects, and thus of La Ruche..." — La Ruche member

"I had the feeling of being recruited. There was no real test of the project, but more a personality test, who you are..." — La Ruche member

The second affordance of the La Ruche coworking space is called inclusion. This concerns the spatial and social properties and modes of operation that make it easy to quickly incorporate new members and ventures into the everyday working life of La Ruche and to favor their contacts with other members and La Ruche's management team.

"To interact with others, you have to meet them. But to be able to meet the other, it is necessary to know that he/she exists." — La Ruche member

For this reason, the workplace was designed and outfitted to be flexible and to allow many different work configurations, depending on the number of start-ups hosted and the number of employees per start-up. With each large wave of arrivals and departures the space is reconfigured to adapt to new working situations: new arrangement of workstation islands, reorientation of foot traffic, etc. The space is modular and furniture is easily moveable.

"We conceived La Ruche as a 'living lab' allowing the entrepreneurs to change the workplace according to their needs and desires because the goal is for the space to suit them: now and in the future." —The eco-designer of La Ruche

Arrivals are systematically announced during the weekly meeting at La Ruche. New members introduce themselves and their business venture to the group; members may also announce their departure from La Ruche in the same way. They can present their contacts and say why they decided to join La Ruche, what they expect from it. La Ruche has an "alumni hall of fame" and portraits of members are displayed within the space, which give newcomers a better idea of who La Ruche members are and what they are working on. The inclusion affordance thus relies in particular on the implementation of welcoming induction processes for new members—and also alumni relationship management—in order to support a significant volume of on-site interactions despite member turnover.

The third affordance of the La Ruche coworking space is called gathering. At La Ruche, members may interact, formally and informally, around a desk, in a meeting room, or in the kitchen. The variety of places available and their flexibility facilitates adaptation to different kinds of interaction, but this is not sufficient to bring members to regularly interact. To encourage people to explore each other's interests inside and outside of work, La Ruche organizes some ten events per month with a variety of formats and themes. Thus, members

stay abreast of other members' activities and the current news in their shared business ecosystem. Some events are restricted to La Ruche members while others are open to a broader public. The flexibility of the semi-fixed space at La Ruche also allows different types of activities to be run within the same workplace and working day (e.g. open space by day, conference hall by night).

> "The discussion times that the La Ruche team arranges creates conviviality and opportunities to get to know each other. It's one thing to share the same space; it's quite another to interact with the others. The Buzz [the weekly meeting at La Ruche], Happy Ruche [an open event], residents' parties, and conferences are all events that help people build ties and get to know each other." — La Ruche member

La Ruche produces temporary proximity—physical and social proximity—between individuals and organizations brought together in or through their spaces, whether they are La Ruche members or not. The mission of the La Ruche venture is to create the conditions for members to make contacts with each other, which would probably not have occurred elsewhere. The gathering affordance thus relies in particular on the planning of various events for members to connect and stay connected in order to interact and maybe at some point to collaborate. However, members are free to decide how they will use the space, places and their associated features (freedom to participate in events, encouragement to take the initiative, absence of hierarchical relationships, etc.).

> "La Ruche is the link between two bees, between two entrepreneurs, otherwise it is nothing."
> — La Ruche member

The three affordances of the La Ruche coworking space (commonality, inclusion, and gathering) combined with the three affordances of La Ruche places (proximity, privacy, and social designation) explain how a spatial organization can provide opportunities for interactions between different ventures. The affordances of place mostly impact inter-individual interaction dynamics in a bounded physical area, whereas the affordances of space relate to the collective interaction dynamics within the workplace. The affordances of place mostly support occasional informal interactions, whereas the affordances of space can support iterative formal and informal interactions.

A distinctive feature of the affordances of space is the role of the temporal dimension in addition to the spatial dimension in interaction dynamics. The three affordances of the La Ruche coworking space respectively signal the importance of action taken by La Ruche

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before accepting new members (selection criteria), during their first months within the space (integration period), and throughout their coworking experience over time (development of cooperation). In other words, our results stress the role of La Ruche's management team in nurturing the affordances of place and space for interactions.

6. DISCUSSION AND CONCLUSION

In this study, we investigate interactions between different ventures in the everyday organizational life of a coworking space from a sociomaterial perspective. Adapting Fayard and Weeks' affordance framework (2007), we propose a theoretical framework for analyzing space and place as co-creators of interaction, by acknowledging the entangled relationship between the social and material dimensions (Hall, 1966). In the specific case of a coworking space, a new and popular kind of interorganizational workplace (Capdevila, 2015; Gandini, 2015; Merkel, 2015; Salovaara, 2015), we show how the affordances of proximity, privacy, and social designation (Fayard & Weeks, 2007) provide opportunities at the place level for occasional informal interaction in convivial places. We also show how the affordances of commonality, inclusion, and gathering at the space level support regular formal and informal interaction within the organizational space, between member ventures and even with non-member ventures. We have thus answered Delbridge and Sallaz' call (2015) by exposing and challenging the materiality of work.

We contribute to the spatiality stream of research through a deep exploration of a new research object in MOS: coworking spaces. We explore the sociomaterial features of one of these interorganizational workplaces to reveal new organizational contexts of work. This fieldwork allowed us to dig into the under-studied notion of affordance in an original way. We extend Fayard and Weeks' (2007) seminal work by applying this notion to interorganizational relationships and workspace and by distinguishing the affordances for interaction of a bounded place and of the global space. First, we show how an analysis of the affordances of a specific place can explain interactions in a different and more complex work context than that of Fayard and Weeks (2007). We demonstrate empirically that place—like space—is more than a "container" (Clegg & Kornberger, 2006; Lefebvre, 1991; T.A. Markus, 1993) for interactions. Place and space thus actively build and participate in interaction dynamics. Second, we argue that collective interaction dynamics between different ventures are afforded within the organizational space and over time, thanks in part to the managerial

and operational practices of the La Ruche team, which are deliberately aimed at fostering interactions at different stages of the experience and relationships between members and the coworking space. We conclude that the interorganizational nature of a coworking space needs a management team to operate it. In this case, organizing space (Clegg & Kornberger, 2006) means intermediating the mutual relationships between space, places, and users by nurturing affordances of place and space. The interorganizational level of analysis is therefore a relevant context to capture such interaction dynamics in new types of working arrangements.

Our contribution to the affordance literature is twofold. First, we extend the scope of the affordance concept from a bounded place to a distributed organizational space. We also extend it by paying more attention to the interconnectedness of the time and space dimensions in organizational life (de Vaujany, Mitev, Laniray, & Vaast, 2014; Massey, 2005). Affordances for interaction in a work context are not only about where they take place, but also when and how often they can occur. We must take temporality into account, if we are to understand events at different times and at different organizational levels (Hernes, Simpson, & Söderlund, 2013). If affordances of places can explain how informal interactions are supported at a given time and place and on a one-shot basis, affordances of space show how opportunities for iterative interactions within the organizational space occur over time and how they may be stimulated. In line with Massey's (2005) relational approach to the notions of space and place, we offer a better integration of the spatial and temporal dimensions of organizational phenomena. Second, we emphasize the role of an organizational actor in sustaining affordances. Building on Fayard and Weeks' (2007) social affordance perspective, we show how human actors participate in the emergence of affordances of place and space.

Our research also advocates for space to be recognized as an integral part of organizations' strategy and management (Boersma, 2015; Dameron, Lê, & LeBaron, 2015). Insufficient consideration had been given to the active role of place and space in interaction dynamics. Too often taken for granted (Clegg & Kornberger, 2006; Kreiner, 2010; Orlikowski & Scott, 2008; Ropo, Salovaara, Sauer, & De Paoli, 2015), place and space may be leveraged as management tools beyond their functional purpose. By according more importance to the workplace, we reassert the role of place and space management beyond property and facility management perspectives.

In this sense, we also answer Garrett et al.'s (2017) call to deepen our understanding of the "intriguing" coworking phenomenon. Our research has great theoretical, empirical, and managerial implications about what coworking is and how coworking spaces work. In terms

of theory, we demonstrate that coworking spaces constitute promising new research objects for MOS that can help us to revise and extend existing concepts, like we did with affordance. Indeed, they offer new work contexts (Leclercq-Vandelannoitte & Isaac, 2016) and require us to combine different levels of analysis: individual, organizational, and interorganizational. Empirically, we help to explain the fast-growing worldwide success of coworking spaces by showing that they can be spaces for interactions under certain conditions, which can positively impact hosted organizations. One of our contributions to the emerging field of coworking research is the observation that all "coworking" spaces are not equivalent, even if they adopt that name. We do not want to promote an enchanted vision of coworking or overestimate its potential for work transformation. Contrary to what has been said recently in the media, management, and academic worlds, we assert that interactions and cooperation within a coworking space are neither automatic nor to be taken for granted.

However, generalization from a single case study requires additional research. We believe the six affordances outlined here and the two levels distinguished (specific places and the workspace as a whole) provide a relevant theoretical framework to compare and contrast various coworking spaces and their influences on members' interactions. This framework could be used to further explore practices and processes of the (re)construction of community work in the coworking context (Garrett et al., 2017). In line with this idea, a deep exploration of what coworking space management means is needed. We emphasize that the coworking space manager's job consists in constantly filling the space with new compatible ventures by identifying, selecting, contracting, and animating members and external actors to avoid interruptions in the interaction dynamics despite member turnover. What are the learning, power, control, or legitimation dynamics at stake? One avenue for further research could deal with this figure of the coworking space manager. We also highlighted the role of event management in the La Ruche coworking space. A second stream of research could look deeper in the multi-purpose nature of a coworking space. Previous research about field configuring events (Lampel & Meyer, 2008) may be relevant to demonstrate how coworking spaces act as temporarily and spatially demarcated spaces and places and what is negotiated there. Our framework could also be applied in other new interorganizational work contexts such as makerspaces and hackerspaces (Anderson, 2012; Kostakis, Niaros, & Giotitsas, 2014) to delve into the interplay between HHI and HMI around machines for digital conception and fabrication (e.g. 3D printers) within these spaces for instance. Broadly, this framework may help to better understand how communities organizing across and outside traditional firm

boundaries (Cohendet, Grandadam, Simon, & Capdevila, 2014; Dahlander & Wallin, 2006; Rullani & Haefliger, 2013) can transform innovation practices and the development of interorganizational relationships (Binz, Truffer, & Coenen, 2014; de Vaujany, Carton, Dominguez-Péry, & Vaast, 2013; Ollila & Elmquist, 2011). Finally, we hope this paper will fuel more research on the materiality and spatiality of organizations as well as on coworking and the ongoing transformations of work.

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