Physical space, culture and organisational creativity – a longitudinal study of a Finnish newspaper

Abstract

Purpose: This article explores the potential positive effects of the design of a physical organisational environment on the emergence of an organisational culture conducive to organisational creativity.

Design/methodology/approach: The study is based on an in-depth, longitudinal case study, the aim being to enhance understanding of how a change in physical space, including location, spatial organisation, and architectonic details, supports cultural change.

Findings: It is suggested that physical space plays an implicit yet significant role in the emergence of a culture conducive to organisational creativity. It appears from the case analysis that there are three aspects of culture in particular, equality, openness and collectivity that may be positively affected by the design of an organisation's physical environment.

Practical implications: The careful choice, planning and design of an organisation's physical location, layout and style can advance the appearance of an organisational culture conducive to creativity.

Originality/value: The paper describes a longitudinal study comparing a case organisation before and after a change in its physical environment. The longitudinal data illustrates how a change in the spatial environment contributes to the emergence of a culture conducive to organisational creativity.

Keywords: physical space; organisational creativity; organisational culture; change.

Paper type: Case study

1. Introduction

Shalley and Zhou (2008) date the birth of organisational creativity studies to the late 1980s. As it is a relatively new line of academic inquiry, organisational creativity has been increasingly studied by scholars because traditional, individual-oriented perspectives of creativity have been found to be somewhat limited (Styhre and Sundgren, 2005). The most quoted definition of organisational creativity was offered almost two decades ago by Woodman et al. (1993: 293)

who defined organisational creativity as "the creation of a valuable, useful new product, service, idea, procedure, or process by individuals working together in a complex social system". Complex social systems, namely, organisations, and the behaviour taking place in organisations, affecting creativity, have been studied from multiple perspectives. The extant studies recognise how different individual, group, and organisational level factors can affect organisational creativity (see Styhre and Sundgren, 2005). Among the most important organisational factors influencing organisational creativity are organisational culture and climate (Andriopoulos, 2001; McLean, 2005; Dobni, 2008). Organisational culture influences creativity, for instance, through socialisation, meanings and values, which guide behaviour and are made explicit through structures, policies and practices (Dobni, 2008). Organisational culture is constituted through assumptions, meanings and values but also through the physical setting and its artefacts and symbols (Hatch, 1993; Schein 1984). Physical settings and artefacts may, in fact, be an essential element of cultural change (Barclay & York, 2001; Lamproulis, 2007; Lindahl, 2004; Wineman et al., 2008). Therefore, it is surprising to note that physical space and its relationship to organisational creativity have been studied by very few scholars and only quite recently (McCoy, 2005; Sailer, 2011). The intersection of these two streams of academic inquiry – organisational creativity studies and the analysis of the physical space of organisations – is the focus of this study. Specifically, the paper aims to increase understanding of how a change in physical space – including location, spatial organisation and the architectonic details [1] – affects the emergence of an organisational culture conducive to organisational creativity. Therefore, the study is not as much about exploring organisational creativity *per se,* as about exploring factors affecting it.

The physical space of organisations has been studied in several distinct disciplines like sociology, organisational theory, environmental psychology, architecture, and facility management (Martens, 2011; McElroy and Morrow, 2010; Sailer, 2011). Therefore, it is almost impossible for individual scholars to be proficient in all the principal discourses. Adopting the perspective of organisational studies, this paper is built on the idea of an organisational culture as a mediating factor between organisational creativity and physical space. It discusses how change in the physical space of an organisation supports change that promotes an organisational culture conducive to creativity. We use empirical evidence from an in-depth, longitudinal qualitative case study of a Finnish newspaper, which moved to a new location with a completely different physical layout. Based on the analysis, we suggest that physical space plays a significant role in

promoting change toward a culture conducive to organisational creativity. As newspapers and media houses as well as other organisations are known to have planned new office designs recently (see BBC 2013; Sanoma 2012; Williams 2013), this study provides interesting insights into the relationships between physical space, organisational culture and creativity. The analysis of this paper focuses especially on the organisational level, while individual and group level aspects are mostly left untouched. Due to the complex nature of organisational creativity, research articles, which discuss this issue usually only include one level of analysis (ABC).

2. Physical space in organisational studies

Modern organisations cannot be considered as fixed structures but rather as forums for interacting and collaborating. Informal organisational structures are what organisations are made of. Therefore, the way people interact and work and especially where they do it, in other words the physical work environment, becomes crucial. As organisation theorists interested in the physical aspects often point out, an organisation's physical structure defines not only how and where people perform their tasks and socially interact with each other in an instrumental and behavioural sense, it also provides a rich symbolic landscape of phenomena, such as culture, hierarchy and identity. Additionally, the physical setting influences behaviour by limiting and structuring the sensory experiences of the organisation's members (Gagliardi, 1990). Consequently, based on the analysis of Vilnai-Yavetz et al. (2005) and Elsbach and Bechky (2007), three specific functions for physical space can be distinguished: instrumental, symbolic, and aesthetic.

Instrumentality refers to whether and how the physical space and its artefacts support or hinder specific activities (Rafaeli & Vilnai-Yavetz, 2004). From the instrumental perspective ambient conditions, such as lighting and noise control, have traditionally been studied in order to advance worker efficiency and output (Veitch & Gifford, 1996). From the social perspective, Elsbach and Bechky (2007) suggest two areas that are particularly affected by office design: decision-making and group collaboration. In addition to decision-making and group collaboration, a third essential dimension, based on solid evidence from previous studies (Hatch, 1987; Oldham & Brass, 1979; Oldham & Rotchford, 1983), namely worker interaction, can be added.

Regarding workers' interaction, the crucial importance of physical space and distance are reported in several studies (Hatch, 1987; Oldham & Brass, 1979; Oldham & Rotchford, 1983). As a general rule of thumb, when the physical distance between offices or workstations increases, worker interaction decreases and changes form. This especially affects spontaneous communication, where only a few extra metres can decrease face-to-face communication dramatically (Allen, 1977). While the increase in physical distance seems to decrease face-to-face communication, some physical barriers, such as partitions, walls, and doors, have been actually found, contrary to widespread belief, to increase interaction and communication between workers (Hatch, 1987; 1990). This finding can be explained by better opportunities for personal conversations and a reduced risk of external intrusions (Oldham & Brass, 1979). The extant empirical evidence and consequential theories are thus contradictory (Fayard & Weeks, 2007).

Unlike in cases of individual interaction, distance and physical barriers, like walls and floors, seem to have only negative consequences for inter-group interaction. Thus, physical distance between work groups, as a rule, negatively affects collaboration because informal and spontaneous interaction is lost. Moreover, if the working groups represent different organisational departments, they typically also represent different sub-cultures, languages, thought worlds, and symbolic domains, making it especially difficult to solve problems between groups (Dougherty, 1992; Schultz, 1991). Different inter-group barriers can be reduced by boundary objects located between groups such as mutually shared workspace, games, places for informal interaction during breaks, or even shared databases (Elsbach & Bechky, 2007). Although open plan design has been found to increase interaction among an organisation's members, negative consequences have also been associated with it. An open plan office has been found to cause increased distraction and loss of privacy (Kaarlela-Tuomaala et al., 2009) and lower levels of workspace satisfaction (Kim & de Dear, 2013; Sundström et al., 1982), especially in medium and large open-plan offices (Danielson & Bodin, 2009). The contradictory evidence appears to suggest that the suitability of an open plan office design depends on many aspects, for instance, on the size of the office (Danielson & Bodin, 2009), the complexity of the employees' tasks (Maher & von Hippel, 2005; Oldham & Brass, 1979) as well as on the equal availability of spaces for concentration and for interaction (Sailer, 2011).

From the *symbolic* perspective, an organisational environment can be regarded as a set of organisational symbols, which have an important role in the formation of organisational culture, identities and meanings (Hatch, 1993; Lindahl 2004). Organisational symbols, including a physical space and its artefacts, reflect the underlying aspects of culture and represent values and assumptions (Schein, 1990). They enable people to communicate and share their frames of thought (Rafaeli & Worline, 2000). Therefore, viewed through symbolism, a rich set of messages is conveyed by the physical environment (Rafaeli & Vilnai-Yavetz, 2004). According to Elsbach and Bechky (2007: 87) "just as anthropologists point to objects as the visible part of culture, office design and décor can be thought of as the visible part of the culture of an organisation". It is a widely held view that individuals in organisations contemplate symbols, such as the size and location of offices or workstations, when assessing their own importance and status in comparison to others (Hatch, 1990; Sundstrom et al., 1980). However, according to Elsbach and Bechky (2007), status may actually be somewhat less relevant to individual workplace identity than traditionally thought, while the ability to signal workplace identities may exceed its importance. Office décor, especially in the form of personal mementoes, makes it possible for individuals to distinguish themselves and to construct and signal their workplace identity. This is important given that workplace identity construction provides meaning for work and allows people to maintain their self-esteem (Elsbach and Bechky, 2007). Even if status might be somewhat less important for individual identity than previously thought, Elsbach and Bechky (2007) underline its importance for different groups in an organisation by noting that hierarchy and egalitarianism between groups is an important denominator of organisational culture.

The *aesthetic* perspective of physical space and office design is less explored compared to the instrumental and symbolic perspectives, especially among organisation studies. It refers to sensory reactions to a physical space and its artefacts (Rafaeli and Vilnai-Yavetz, 2004). The most straightforward aspect of aesthetics in office design concerns the experience of beauty and ugliness. Vilnai-Yavetz et al. (2005) present evidence from studies indicating clear differences in people's perceptions and emotions as to what is a beautiful or an ugly room. According to Elsbach and Bechky (2007) aesthetics in office design can be used both to promote an overall sense of belonging as well as to produce specific sensory experiences. Accordingly, 'exciting' and 'stimulating' brainstorming facilities, in contrast to 'calming' and 'pleasant', break rooms, may be used as supplementary work environments.

To sum up, the three concurrent perspectives (instrumental, symbolic and aesthetic) hint at the different aspects of the physical work environment, none of which should be overlooked when organisations plan their premises.

3. Organisational creativity, culture conducive to creativity and physical space

According to Csikszentmihalyi (1999), perceiving creativity exclusively as an intrapsychic process, as psychologists typically tend to do, does not do justice to the phenomenon as it is as much a cultural and social event as it is psychological. As Csikszentmihalyi and Sawyer (1995: 171) state: "the creative process is heavily dependent on social interaction, which takes the form of face-to-face encounters and of immersions in the symbolic system of one or more domains." The notion of the systemic nature of creativity has encouraged scholars to explicitly investigate the effects that organisational environments have on creativity (Csikszentmihalyi, 1988, 1999). These efforts have further led to the emergence of organisational creativity studies as a distinct field of academic inquiry.

However, despite occasional references to the physical aspects of creativity (Kristensen, 2004; Shalley et al., 2004), very little is known about the relationship between the physical environment and organisational creativity. The role of the physical context of creativity has not been widely studied. Moreover, the few studies that explicitly cover the topic are constricted from the perspective of organisational creativity in everyday work environments (Sailer, 2011) in that they focus, for instance, on special 'innovation labs' (see Haner, 2005; Lewis and Moultrie, 2005; Magadley and Birdi, 2009; Van der Lugt et al., 2007). In addition, studies that approach physical space and creativity from a conceptual and/or individual perspective (see Kristensen, 2004; McCoy, 2005; McCoy and Evans, 2002; Moultrie et al., 2007) are also somewhat limited from the empirical perspective of organisational creativity. Thus, there are only a handful of peer-reviewed empirical studies explicitly connecting physical space and organisational creativity in everyday work environments (see Martens, 2011; Sailer, 2011; Williams, 2009; Vithayathawornwong et al., 2003).

Given the complex nature of both organisational creativity and physical space as constructs, it is challenging, if not impossible, to analyse the direct relationship between the two (Sailer, 2011). However, bringing organisational culture into the equation facilitates such an

analysis. In this study, therefore, the concept of an organisational culture conducive to creativity is used as a connecting construct between the two phenomena.

The physical environment and its artefacts comprise a rich source of information about organisational culture (Hatch & Cunliffe, 2006, 194). It has also been found that the physical setting may be an essential driver of cultural change (Barclay and York, 2001; Lamproulis, 2007; Lindahl, 2004; Wineman et al., 2008). It is therefore fair to say that, although the relationship between organisational culture and physical space is complex, it is also undeniable. Organisational culture is strongly connected to organisational creativity because it is considered one of its essential determinants (Ahmed, 1998; Andriopoulos, 2001; Martins and Terblanche, 2003). An organisational culture's influence on organisational creativity is subtle, although pervasive (Mumford, 2000). This influence first occurs through the socialisation process, during which individuals learn what kind of behaviour is expected of them and what is allowed (Dobni, 2008; Martins and Terblanche, 2003). Furthermore, culture affects organisational creativity through values, norms, dominant philosophies, and rules that are reflected in structures, policies and practices, among other things (Kondra and Hurst, 2009; Martins and Terblanche, 2003). In summary, an organisation's culture defines whether or not creativity is appreciated and encouraged in the organisation (Daymon, 2000), and this is reflected in how problem situations are addressed and solutions sought, for instance (Andriopoulos, 2001). A culture conducive to organisational creativity typically values participation, interaction across departments, informality as well as freedom from rules, and is dynamic and externally oriented (Ahmed, 1998). Its typical characteristics also include trust, safety, risk-taking and the open flow of communication (Andriopoulos, 2001).

4. The case organisation and research methods applied

The organisation studied operates in Finland and publishes a daily regional newspaper with a circulation of approximately 55,000 copies. According to Hofstede's (1997) dimensions of national culture, Finland is a country characterized by low power distance, low masculinity, high individualism, a medium-high preference for uncertainty avoidance and short-term orientation. This means that organisational cultures in Finland are typically rather democratic and feminine values, for instance, the quality of working life, well-being and flexibility are appreciated. Organisational cultures in Finland tend to be individualistic, appreciate the achieving of quick

results and, to some extent, avoid uncertainty by introducing rules and behaviour codes. Naturally, Hofstede's (1997) dimensions provide only a glance into a few dimensions of a national culture. Therefore, although parts of an organisation's culture are generally derivative from the national culture, organisational cultures within a national culture may emphasise different elements of the national culture and, thus, can vary greatly (Salama, 2011; Schein, 1984).

A new era began in the case company when John (for reasons of confidentiality, the organisation and its employees are all given fictitious names) became the new editor-in-chief in 2001. When the former CEO retired in 2006, John also took on the CEO's tasks combining the editor-in-chief's and the CEO's jobs. John's dual role was helped by the hiring of a new editor, Mike who runs the editorial staff together with John and David. John, the editors Mike and David, together with deputy editors, reporters, special reporters, photographers and graphic designers form the editorial staff, the core of the newspaper. Other units in the case organisation include administration, media sales, circulation, customer service, marketing and the pressroom. They all operate within same facilities, except for the pressroom. Due to its separate location the pressroom was excluded from the study.

This study can be best described as an in-depth, longitudinal qualitative case study. We carried out the data collection and its subsequent analysis without any previous theory being placed under consideration or hypotheses being tested (Eisenhardt, 1989). The case analysis is dominated by an instrumental interest, that is, while the applied method enables no empirical generalisations, the case is primarily used to provide new theoretical insights (Stake, 2005). We collected the empirical material of the study in two sequential waves. The primary research methods were thematic interviews and observation. The first wave included 15 thematic interviews and was executed in November and December 2007. The personnel interviewed came from all the main functions operating within the same facilities. The interviewees included the CEO/editor-in-chief, two editors, several reporters and special reporters, head of sales and other sales persons, a marketing assistant, a customer carer, a photographer, art director, and the head of development. The amount of interviewees from different organisational functions essentially followed the overall distribution of the company's personnel. The newspaper has approximately 115 full time employees, of which 70 work as editorial staff.

During the first wave of interviews John hinted that the case organisation's rental agreement was soon about to expire and that the newspaper might move to new facilities in the near future. However, the personnel of the case company had not received any information concerning the possibility of moving as no official plans had been made. In 2007, the newspaper had been operating in its traditional location for more than 100 years and had grown to cover premises on four floors that were conjoined from three different buildings.

The newspaper moved to its new location in July 2009 after carefully designing and renovating the facilities. The new facilities contrasted clearly, even dramatically, with the previous one. The second wave of interviews contained another 15 thematic interviews executed during March/April 2010, two and a half years after the first wave and nine months after the newspaper had moved into its new facilities. This allowed enough time for the case organisation's personnel to adjust to their new premises. As some of the interviewees were absent for different reasons, such as maternity leave, it was only possible to interview 11 of the 15 initial interviewees. Consequently, four new interviewees, including the architect responsible for planning the facilities, were interviewed. The second wave interviews provided rich data indicating several evident changes compared to that of the first wave. Importantly, apart from the move to new facilities and the cultural change initiated by the CEO/editor-in-chief John, no other major organisation-wide reform took place in the newspaper between the two waves of data collection. However, even if no other inter-organisational changes took place, the newspaper industry as a whole was facing drastic changes during the period of data collection. Newspaper circulations had been in decline in many European countries, and the Internet and new forms of production and distribution were challenging the existing business models and value chains of the newspaper industry (Kosonen & Ellonen, 2010; Thomas, 2007). These wider changes in the industry were among the most important reasons leading John to pursue the cultural change.

The interviews lasted from 30 to 90 minutes and were conducted in Finnish, tape recorded, transcribed, and then, with regard to the selected quotes, translated into English. The amount of interviews conducted was considered sufficient because the last four or five interviews more or less repeated the results of the earlier interviews in both waves. However, in addition to the interviews, several days were spent observing everyday work and meetings at the case company's facilities (both old and new). Given that the interest of the study lies in the internal layout and organisational culture, the observation was found useful in advancing our

understanding of how a change in facilities affects the everyday behaviour of workers. Moreover, the case company's internal organisational surveys (IOS), collected from all employees by an independent consultancy every second year from 2004 to 2010, were included in the research data. The IOS measured areas such as work satisfaction, motivation, management practices, communication, internal relations, competitiveness, and company image according to 89 indicators. For both years of interest in this study, 2008 and 2010, the response rates to the IOS were over 90 per cent. Moreover, dozens of photographs from both the old and the new premises of the company were collected.

The data analysis took place in four phases all of which involved internal iteration. Firstly, the audio recordings of the interviews and their transcriptions were read and listened to. The transcriptions were coded and then thematically grouped according to the themes that emerged in the interviews. The analysis was thus data-driven as no extant theories were used to guide the analysis in the first phase. In the second phase, the secondary data were analysed and triangulated with the primary data. The analyses of the observations, IOS and photographs supported the conceptions made based on the primary data. Next, based on the primary data analysis and triangulation, several important topics were identified and explicated. During the fourth phase, as a result of iterative analysis, the themes and topics of importance were synthetically merged into three general categories – openness, equality and collectivity – after which they were reflected on with reference to existing literature. These three categories are identified in the empirical analysis section and discussed more closely in the theoretical analysis and discussion section.

5. Empirical analysis

First wave; exploring the 'hierarchy'

During the first wave of the data collection, the facilities of the case organisation were located downtown. Employees in all departments, excluding administration, worked in open-plan offices, in workstations typically separated by partitions. Each department was separated by walls, and most of them were located on different floors. A canteen was the only shared facility for employees, who seemed to follow the departmental split, even during lunch when they usually sat next to their closest fellow workers. In general, interdepartmental interaction seemed to be more or less non-existent as suggested by most interviewees. Long corridors, narrow stairs

and small elevators linked a long, narrow space spread over three interconnected buildings and made the facilities seem maze-like for someone unfamiliar with the premises. The old premises gave an overall impression of a dark, archaic and authoritative space.

As Hatch and Cunliffe (2006: 234) state, "over time buildings come to represent their organisations and have the effect of helping people construct what they think and feel about it". For the newspaper this was apparent as several interviewees spontaneously referred to the company's unflattering nickname, one that amalgamated the street name of its facilities together with an expression of conservatism in a specific backward-looking sense. The roots of the conservatism stigma originated from the fact that the newspaper had been politically committed to a conservative, right-of-centre party, while, paradoxically, operating in a traditionally left wing dominated region. Officially the newspaper had been politically independent for over 20 years. The quest to turn the newspaper's image from being backward-looking conservative and hierarchical into forward-looking, egalitarian and creative seemed to be the shared vision of the executive board. The quest and its challenges were most explicitly expressed by John:

"When I came here [in 2001], this organisation was highly traditional, quite conservative, a bit stiff. There was hardly any creativity, there was fear, and people were working even though they felt it didn't really matter. 'Given up' describes the general attitude. As the Editor-in-Chief, my essential task is to change the culture of this organisation. It's extremely slow but I'm constantly working to achieve it."

In the quest for change in organisational culture John received important support from other members of the upper management team. This actively pursued cultural change was also reflected by a deputy editor, a long-term employee:

"Regardless of its vagueness, the culture is pretty much the keyword for the editorial staff, just as in the organisation overall. Among my colleagues, we have actually been discussing how there is this tradition of blaming the conservative and peculiar culture of the organisation for our failures. It's strange how these cultures change so slowly. But I think that the emergence of the new culture is evident. It kind of eats away the older, more authoritarian climate and further increases discussion and enthusiasm among employees."

The interviewees perceived a clear decrease in hierarchy while some interviewees from departments other than editorial staff and administration still felt that members of the editorial staff and, in particular, the reporters were a sort of 'gentry' working on their own private upper floor. A 'silent hierarchy' (Brown et al., 2010) was thus evident: between different departments, a relatively low level of interaction among employees as well as between supervisors and subordinates was reported. In fact, several interviewees explicitly mentioned that they neither experienced nor saw a particular need for interdepartmental interaction. The observations supported the finding that interdepartmental interaction was almost non-existent.

Viewed instrumentally the old facilities allowed the organisation to perform its tasks, while it also made casual encounters and interaction with others than the neighbouring colleagues difficult or unlikely. The maze-like, narrow structure and extant division of space contributed to a silo-like culture, where employees only interacted and collaborated with those working physically close to them and information was kept inside the walls of their own department. The symbolic aspects of the space reinforced the hierarchic, authoritarian and conservative culture (cf. Schein, 1990), even if the management wanted to reform it. The aesthetic experience of the dark, messy and worn-out facilities were of no help in creating a dynamic, egalitarian and creative organisation. To sum up, it seems that the old facilities of the case organisation held back the egalitarian, innovative and forward-looking culture being promoted by upper management (cf. Barclay & York, 2001). The physical layout of the organisation thus symbolized a backward-looking, conservative and hierarchical culture, even as a new culture was being promoted. Unlearning the hierarchical culture was thus challenging (cf. Brown et al., 2010).

Second wave; exploring the 'open space'
During the second wave of data collection, the newspaper had been operating in its new premises for nine months. While it seemed that the unwanted backward-looking nickname would continue to cast a shadow over the organisation, the newspaper's move to its new premises was also a symbolic act to cut ties to that. As put by a member of the editorial staff, "The backward-looking conservatism was left behind as we moved".

The new premises are situated close to a river in an aesthetically inspiring, picturesque, 110-year-old cotton factory close to downtown. Importantly, the renovated cotton factory is

populated by other organisations, including units from five different universities as well as traditional and high-tech companies, a gym and a dance school. If the newspaper's management wanted to break the backward-looking stigma associated with the traditional site, it hardly could have chosen a better location for the new premises. John, summarises his logic regarding the location and design of the new facilities:

> *"I started to get the feeling early on that accelerating the cultural change requires a change in geography. This organisation has strong hierarchical traditions and it just doesn't work that way nowadays. Hierarchy must be destroyed in every possible way; our organisation needs to be as flat as possible. [...] It's necessary to tear down rigid departmentalisation and reduce barriers between the departments. It might be almost impossible to accomplish this without a radical reform in the layout of the facilities."*

After the decision was made to move to the old cotton factory premises John assembled a workgroup including employees from all the functions of the newspaper. The group was given six different architectural designs, five of them being more or less traditional office layout designs with cubicles, walls, and partitions, while one was a rather unconventionally designed layout with some interesting and playful elements. To John's positive surprise, the group almost unanimously voted for the most radical design. Even though the newspaper had been operating in its old, conservatively designed facilities for decades, neither the move into the new premises nor its radical architectural design faced major resistance from the personnel.

The ground floor entrance hall of the new premises has a large reception area and a customer service desk. Behind the desk demarcated with a semi-closed wall lay the rest of the customer service facilities, along with the media sales department, in a uniform open-plan office design. Compared to the old premises, one could point out that the customer entrance had undergone a considerable facelift. The previous, bank-like, timeworn and crowded desks were replaced with a trendy, hotel lobby feel through ever changing photograph exhibitions. Moreover, at the entrance there are monumentally wide stairs that lead to the first floor, making a huge contrast to the narrow stairs and long corridors of the old facilities. Besides serving as actual stairs they also serve as an auditorium and provide impressive aesthetics for the whole entrance.

In between the ground floor and the first floor, with a view to the river, there is a 'News Bistro' – a smaller lounge area for employees. At the entrance to the first floor is the heart of the physical layout of the premises, 'the Playground'. It is an inviting lounge where employees can gather for both formal and informal meetings, have coffee breaks, read newspapers and magazines, etc. The personnel working on the first floor recognised the importance of the Playground as a space that reduces barriers between groups and makes co-workers more familiar with each other, which, for its part, has had a positive effect on the organisational culture.

However, it was noted that people from the ground floor preferred to use the News Bistro instead of the Playground. Moreover, the interviewees working on the first floor felt, in general, that the first floor had better design but longed for more interaction with the employees located on the ground floor. However, the personnel on the ground floor neither saw the change of office layout as being as dramatic as the people on the first floor did, nor felt any particular reason to interact with them, or to go and have their coffee at the Playground. As stated by John, from the social point of view, the ground floor design was not as successful as that on the first floor, and thus the cultural change pursued by the new office design did not reach the ground floor as widely as John would have hoped for. Even though the cultural change was not as thorough on the ground floor as it was on the first floor, the interviewees located on the ground floor still reported that they had experienced changes in the newspaper's culture.

As the general trend nowadays seems to promote a culture of equality, according to Elsbach and Bechky (2007), many organisations eliminate and discourage visible status symbols, such as ornate offices for top management or executive lunchrooms, and reserve spaces with good views for shared use. The elimination of visible status symbols was apparent in the case organisation. After moving from an office of some 70 square meters to a standard-size open-planned workstation of about seven square meters, John expressed amazement at how he could have previously managed to work in a closed office as he would not have been able to see and hear what was going on in the organisation. Like John, the Head of Development, Jerry, as well as the two editors, Mike and David, who had previously had their own offices, expressed their satisfaction with the new arrangements. The elimination of status symbols and managerial offices was thus unanimously considered a positive development that reduced unnecessary hierarchy (McElroy and Morrow, 2010). These changes signalled the equality of the organisational culture (Schein 1990), which was suggested by a member of the editorial staff:

"Here, neither upper management nor anybody else has gone into their own cubicles. Everybody shares the same space – and if you have something to say, you just go and say it. There's no threshold to wait at or buzzers to press, which I think are kind of old-fashioned. Here you can just walk up to a person and ask or say what you have in mind."

Apart from the upper management, nearly all the interviewees reported that they kept on mostly interacting with the same people they had done before. On the other hand, spontaneous, usually break-time interaction among employees from different functions and departments had increased significantly, although, importantly, not so much between those working on different floors. In addition, many interviewees, especially from the editorial staff, stated that they had received ideas for their work from people from other departments and those working in other organisations within the cotton factory premises. Importantly, some interviewees, who saw no particular need for interdepartmental interaction during the first round of interviews, had changed their opinion about interaction, as a mid-level manager from the editorial staff states:

"Now that there is interaction between different departments it's positive. [...] As there are shared places where you can go and have your coffee [i.e. the Playground and the News Bistro] you meet people outside editorial and you get ideas and tips from them. [...] In addition, there are the university units and as people go there to have lunch, they also get ideas from the people they sit with."

Therefore, not only intradepartmental but also interdepartmental, and inter-organisational interaction increased. It seems that the division into just two floors, instead of the previous four, was of great importance for the amount of increased interaction in the case organisation. Nevertheless, the floors effectively eliminated a lot of spontaneous interaction between the people on the ground floor and the first floor as illustrated by the following quote from a sales person, "I think it's a pity that we aren't all on one floor. Now customer service and media sales are somewhat a band of their own". In a similar vein the architect expressed the view that he would have preferred just one floor instead of the two. However, as there were two floors he took interconnectedness as a guiding principle. The interconnectedness found its expression, for instance, in the wide stairs. As contemplated by Kornberger and Clegg (2004: 1106), "[are] stairs made to move [us] from A to B, or do they contain places which invite us to stop and pause for a

minute?" In the case of the newspaper's new facilities it was not only the latter but, in addition, it was an expression of the symbolism of the company's new, more open culture. Therefore, regardless of the relative shortage of interaction between the two floors, the interviewees on both floors noticed the increased interconnectedness and openness.

The general satisfaction with the new premises was channelled into the work environment and organisational culture in many positive ways. Some interviewees explicitly pointed out that the aesthetically pleasing and stimulating environment enhanced creativity (cf. Csikszentmihalyi, 1996; McCoy and Evans, 2002). Moreover, several interviewees expressed that they felt that the employer showed an appreciation for their work by offering inspiring facilities. The interior design of the new facilities, for instance, consists of many surprising and aesthetically interesting elements. Around the first floor, there are four open 'cubes' for negotiations and meetings. The cubes have their own rather personal appearance, including a roof, two ceilings, a transparent ceiling and an open side. The cubes are thus not soundproof, though they offer a sense of privacy and still remain an integral part of the general open atmosphere.

The instrumental design aspects of the new facilities have not been played down at the expense of aesthetics because there are, for instance, soundproof rooms for interviews, private conversations and meetings as well as several 'phone-booths'. Regardless of this, a negative quality of the design is that everyone, except upper management, felt, to some extent, that their work was disturbed by noisy co-workers due to the open space. However, noise was the only aspect of the ambient conditions, which was brought up in the interviews as a negative factor. Another ambient condition mentioned by several interviewees was the availability of natural light due to large windows, which was considered positive. As optimal ambient conditions allow employees to concentrate fully on their tasks and perform creatively (McCoy, 2005), it can be concluded that the new facilities also supported organisational creativity by providing a comfortable work environment. Consequently, between the years 2008 and 2010 the IOS showed clear improvements regarding the work environment, the modernity of the company and the overview of the company. An increased sense of equality and openness were themes reported by almost all interviewees and, moreover, several interviewees spontaneously said that the new facilities made them proud.

To sum up, it seems that the upper management's vision of the newspaper's identity as a forward-looking media house started to materialise when the case company moved to its new

premises. With its new location and design solutions, the case organisation symbolically promoted a forward-looking and creative culture. This was also the message the management wanted to send more widely to customers, subscribers and other stakeholders.

6. Theoretical analysis and discussion

It seems that the change of physical space had numerous implications for the organisational culture of the case organisation. According to the empirical analysis, and as illustrated in the right-hand column of Table 1, it seems that there were primarily three aspects that made the culture more conducive to organisational creativity: openness, equality, and collectivity.

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INSERT TABLE 1 ABOUT HERE

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Openness can be perceived as a multidimensional phenomenon that in the organisational context includes factors such as openness to new ideas, insight, technique, and a working approach, as well as openness to communication, social interaction and change (Amabile et al., 1996; Choi, 2011; Mitchell et al., 2009). Openness as an organisation's cultural orientation more or less determines whether new ideas and ways of doing things are accepted or rejected (Dobni, 2008), and thus is an important element of organisational creativity. Openness is in direct conflict with organisational impediments, including internal stifling, conservatism, and rigidity, which associate negatively with creativity (Amabile et al., 1996; Brown et al., 2010; Choi, 2011). At the same time it provides a fertile ground in which to cultivate freedom, including freedom of expression and the freedom to experiment, a sense of control over one's work and idea generation – all of which are essential for organisational creativity (Amabile, 1997; 1998; Andriopoulos, 2001; Mitchell et al., 2009; Prieto et al., 2009). For the newspaper, increased openness meant, among other things, breaking free from the stigma of backward-looking conservatism, developing the online newspaper as well as improving formal and informal communication, which were found to be crucial to organisational creativity (Haner, 2005). The IOS shows a clear improvement between 2008 and 2010 on issues such as the ability to control one's work and interdepartmental and intradepartmental communication. At the same time, there was a clear decline in the number of obtrusive rumours and the amount of bureaucracy as well as

a clear increase in the organisation's flexibility in problem situations. All of this reflects increased openness within the case organisation.

From the instrumental perspective the most important factor advancing openness seemed to be the new division of space. The fact that there were now only two floors and that all departments now shared an open space instead of being physically separated behind walls, brought people physically closer together, resulting in increased interaction and knowledge creation, which are prerequisites for creativity (Lamproulis, 2007) and also effectively prevent obtrusive rumours. The above-mentioned factors related to the general and inter-departmental division of space were also clearly important on the symbolic level, supporting the emergence of an open culture in the organisation (cf. Schein, 1990). However, what was perhaps even more important on the symbolic level was the new location in the cotton-factory area next to the university units. First of all, the new location made the old nickname of the case organisation redundant. Secondly, the new identity of the newspaper became associated with the other organisations operating in the cotton-factory campus, thus creating an image of the newspaper as critical, dynamic and open to new ideas. The new location also symbolically encouraged organisational openness, thus strengthening its instrumental influence by making inter-organisational encounters easier and more likely. The openness was also reflected in the aesthetic experiences the space was intended to create and in the visual expressions of openness used in the décor, for example, the wide, connecting stairs, the views outside and the inviting entrance. In a similar way, the unconventional and playful décor was meant to enhance a sense of freedom and encourage experimentation.

Equality (rather than hierarchy) was evident on both the group and the organisational level. On the group level it is obviously an essential factor in supervisory encouragement and work-group support, which, for example, have been found to encourage organisational creativity (see Amabile, 1997; 1998; Amabile et al., 1996; Brown et al., 2010). For instance, if individuals feel that their supervisor is not impartial in valuing employees' contributions, they probably do not trust and help each other as team members should (Amabile et al., 1996; Bock et al., 2005; Hoegl and Gemuenden, 2001). In a similar vein, on the organisational level it is essential that members of all teams and departments feel they have a fair status (cf. Elsbach and Bechky, 2007), their team/department is appreciated, their ideas are judged fairly, and that the accomplishments of different teams/departments are recognized and rewarded equally (Andriopoulos, 2001). Equality

also refers to a flat organisational structure and the freedom of employees to express their opinions and participate, which are further considered essential for organisational creativity (Andriopoulos, 2001). The increased opportunities to participate and the decrease in hierarchy were frequently mentioned in the interviews.

Equality, unlike openness, is affected much less by the instrumental than by the symbolic aspects of physical space. Despite the importance of the symbolic aspects, equality in the case organisation was also affected instrumentally, by, for instance, creating a working environment in which the possibility of participation and self-expression was equal regardless of position.

According to Hatch (1990: 143), "office designs might best be analysed as symbols produced by organisational culture". Accordingly, she describes the private office as a symbolic "generator of deference behaviour, supporting and maintaining of hierarchical authority," and the open office as "a schema for the development of lateral relationships maintaining more organic structural forms" (Hatch, 1990: 144). The new open space shared by different departments, the fewer floors and the decision of top management to give up their private offices thus symbolize equality (see Martens, 2011). The aesthetic design and architectonic details of the new premises, such as the replacement of conservative artwork with photographs taken by members of staff, also symbolize the replacement of hierarchy with equality, creating an egalitarian atmosphere among the employees (see Lamproulis, 2007). Disposing of the unnecessary hierarchy, an act which was promoted by the management and also reinforced by the aforementioned changes in physical space and related symbols, was an essential factor that led to a cultural change (Salama, 2011; Schein, 1990). A feeling of equality combined with the shared space and openness made the employees feel obliged to contribute to the task at hand, creating a sense of ownership of projects, which has also been found conducive to creativity (Axtell et al., 2000).

Even though *collectivity* received somewhat less explicit attention in the empirical data compared to openness and equality, it was nevertheless clearly the third most important theme that emerged from the analysis. Collectivity refers to the formation of a shared, organisation-wide culture, which was in the process of formation and seemed to be replacing the old department-based sub-cultures during the second wave. Collectivity was also seen in the clear increase in interdepartmental interaction, in the use of shared spaces and the general sense of belonging – all of which seemed to have started to emerge between the first and second waves. Collectivity and, in particular, increased interdepartmental interaction have a clear, positive

connection with mechanisms for developing and producing an active flow of new ideas (see Andriopoulos, 2001) as well as for facilitating the cross-fertilisation of knowledge that is essential for organisational creativity (Sailer, 2011). Moreover, collectivity has an explicit negative connection with organisational impediments such as internal stifling and rigidity (see Amabile et al., 1996).

The formation of a more collective culture to replace the previous sub-cultures is also connected to equality in that inter-group communication and collaboration tend to be constricted in hierarchical cultures, thus limiting organisational creativity and the potential new innovations that tend to result from the synthesis of information from multiple domains (cf. Csikszentmihalyi and Sawyer, 1995; Martens, 2011; Penn et al., 1999; Sailer, 2011). Although excessive uniformity and conformity can also be detrimental to creativity (Pech, 2001), the old silo-like culture of the case organisation made any inter-departmental dialogue and collaboration rather unlikely. Therefore, the change towards collectivity can be considered positive from the perspective of organisational creativity.

As with openness, collectivity was heavily affected by the general division of space. The new facilities simply made interaction across departments easier because there were fewer floors than in the old ones and no corridors or walls. Instead, the open space and shared break-time facilities intensified physical closeness. This is especially important given that interaction across departmental boundaries is useful for the emergence of new ideas and organisational creativity (Penn et al., 1999; Sailer, 2011). In summary, the general division of space not only instrumentally provided more opportunities for interaction and collaboration across departments, but also symbolically encouraged it. The aesthetic aspects of the physical layout enforced a sense of belonging and togetherness, which was essential in replacing the old silo-like culture with one that is more communal and interactive.

Although openness, equality and collectivity are discussed above as separate items, in practice they are interconnected in many ways. This is most obvious in the case of collectivity, which was heavily influenced by openness and equality. In fact, the three factors were, in many cases, not just interconnected but often affected by the same aspects of the organisation's physical environment. For instance, the Playground was significant on many levels. Firstly, having a special area for social gatherings appears to encourage collectivity. Secondly, the Playground underlines the equality of all the employees because everyone working at the

newspaper, regardless of their department or position, can spend their coffee and lunch breaks there. Thirdly, the Playground fosters a sense of openness because the formal morning meetings of the editorial staff are held there, which enables all employees to hear the topics and listen to the discussions and, if they like, to bring in their own ideas.

The data collection for this study took place during a time period of complex and rapid changes in the newspaper industry. The print media was in decline and new forms of publishing and distributing media content were fast evolving (Kosonen & Ellonen, 2010; Thomas, 2007). Therefore, any assessments of the case company's performance and its development during the time period are influenced not only by the change in the organisational culture and the move to the new facilities, but also by the wider changes in the industry. For instance, the combined circulation of all Finnish newspapers declined 5% from 2008 to 2010, while the circulation of the newspaper published by the case company declined 4% in that period. However, while the circulation of the printed newspaper was in decline, the readership of the case company's newspaper rose from 125,000 in 2008 to 126,000 in 2010. Although it is impossible to make any assumptions about causal relationships, given the method used in this study, and the continual changes in the wider context, the interviews and the IOS results clearly illustrate that the organisation was now providing a better product for its customers. Also major advances had occurred, especially in the online newspaper and in the layout of the print version. New, open-minded solutions were found and there had even been some small innovations. In addition, employee awareness of a decrease in the bureaucracy and in the number of obtrusive rumours as well as the perceived increase in the organisation's flexibility in problem situations clearly indicate the emergence of a new, creativity-supporting culture and the increased ability of the organisation to facilitate and support organisational creativity. To conclude, although changing an organisational culture and especially the underlying assumptions of culture is difficult, according to the empirical analysis of this study, the case company was able to support and accelerate the cultural change. Primary embedding mechanisms in the case organisation were the management's desire and determination to change the culture, which were reinforced by a change in the physical space and its observable artefacts and symbols (Schein, 1990). In addition, as the whole newspaper industry was experiencing a period of transformation, the changing values of the industry were also reflected in the cultural change occurring within the case organisation (cf. Salama, 2011).

The three above-discussed aspects of organisational culture – openness, collectivity and equality – are seen as mediating factor between an organisation's physical space and its organisational creativity. Figure 1 illustrates this interconnectedness.

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It is clear from earlier studies that deal with organisational behaviour from the perspective of the physical organisation (Allen, 1977; Elsbach and Bechky, 2007; Hatch, 1987; Oldham and Brass, 1979; Oldham and Rotchford, 1983; Vilnai-Yavetz et al., 2005) that the relationship between the two is not unidirectional or cause and effect like, but is rather complex in nature. It is therefore obvious that the resulting triangle of physical space, organisational culture, and organisational creativity is far from one-dimensional. This also applies to organisational creativity itself: in real life, organisational creativity is not merely a dependent factor that is affected by independent factors such as the organisational culture and physical space. On the contrary, organisational creativity most likely has a reciprocal relationship with factors affecting it. There is thus a need for a closer analysis of the role of organisational creativity in situations of change in the organisational culture, not to mention the physical space.

7. Conclusions and limitations

The case presented in this article highlights the importance of the design of the physical work environment and illustrates how managers can use physical space to advance cultural change and, in particular, how the design of a physical organisational environment might have positive effects on the emergence of a culture conducive to organisational creativity. The rich longitudinal empirical data of the case study raises several potential factors that can be affected by items related to physical space. In the case organisation, three aspects of organisational culture – openness, equality, and collectivity – were especially affected in a positive way by a new location, new spatial organisation and architectonic details.

This study has limitations typical of qualitative single case studies. Firstly, due to the method applied it is not possible to make empirical generalisations. Secondly, as a case study with no comparative empirical data, the study reflects events that took place in a single

organisation. Consequently, the relevance of contextual factors cannot be explicitly evaluated, thus similar decisions in physical organisations under another culture could have different outcomes. For instance, in their study of a US newspaper organisation, Oldham and Brass (1979) found that after moving from a conventional, multi-cellular office to an open-plan office with no walls or partitions, the employees' internal motivation as well as their satisfaction with work and colleagues declined sharply. The opposing results of the two studies might be due to the fact that the employees in the case organisation of this study had already been used to working in open, yet separate, offices in all departments, except for administration, to cultural differences between the two organisations (cf. Hofstede, 1997) and the 30 years between the two studies.

However, the special advantage of a qualitative case study is in its ability to build a deep understanding of the dynamics of the phenomenon of interest in its own context. Moreover, when adopting a longitudinal approach, an in-depth case study can offer rich data on the evolution of the contextual factors influencing the phenomenon of interest, providing a theoretical understanding that is more or less impossible to gain by other means. Accordingly, while neither empirical generalisation nor comparative analysis is possible, it can, nevertheless, advance theoretical understanding. This is particularly evident when the case analysis takes place in an instrumental manner (cf. Eisenhardt, 1989; Stake, 2005). Moreover, due to the data collection methods, the instrumental and symbolic aspects of the physical space were more widely covered than its aesthetic aspects. This is due to the fact that an aesthetic experience is inherently subjective (Taylor, 2002) and therefore difficult to communicate through language (Warren, 2008).

This study contributes to the discourses dealing with organisational culture, organisational creativity and the physical space of organisations in three ways. The first contribution is a conceptual one as the study explicitly brings together aspects related to physical space and the organisational culture conducive to organisational creativity. The second contribution of the study is an empirical one, made possible by the longitudinal approach; the case analysis shows how a change in physical space operates in tandem with a cultural change. The third and most unique contribution of the study is also empirical. The longitudinal case analysis reveals three aspects of culture, namely, equality, openness and collectivity, which can be positively affected by the design of an organisation's physical environment and can, in turn, positively affect organisational creativity.

Based on the study, it seems clear that the organisation of physical space plays a significant role in the emergence of organisational creativity. The empirical and theoretical findings of the study strongly suggest that scholars should not confine themselves to merely looking at the social aspects of organisational creativity because the components of a physical organisation's environment exert an indirect influence on organisational creativity (cf. Sailer, 2011; Vithayathawornwong et al., 2003). On the other hand, questions concerning 'how', 'why', and 'under what circumstances' the physical environment – through the influence of the organisational culture – actually affects organisational creativity remain only partially answered. Moreover, due to the fact that the analysis of this paper concentrates on the organisational level, the individual and group levels of organisational creativity and their relationship to physical space would be important foci for future studies. To conclude, it is important that scholars focusing on organisational creativity widen their scope to include physical space in its various forms in their analyses.

Endnote

1. According to McCoy (2005), architectonic details refer to fixed or stationary aesthetics as well as the materials or ornaments used to embellish the workspace and include decorative styles, signs, colours and artwork.

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ABC: we have used this expression in order not to jeopardize the blind review protocol as we cite our own previous study.

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