

The field of radical innovation: making sense of organizational cultures and radical innovation

William Green^{a,*}, Robert Cluley^b

^aUniversity of Leicester

University of Leicester School of Management, University Road, Leicester, LE1 7RH, UK

^bUniversity of Nottingham,

Nottingham University Business School, Jubilee Campus, Nottingham, NG8 1BB, UK

*Corresponding author, Tel: +44 (0)116 223 1233.

Email addresses: w.green@le.ac.uk (W. Green), robert.cluley@nottingham.ac.uk (R. Cluley).

The field of radical innovation: making sense of organizational cultures and radical innovation

Abstract

Organic organizational structures and cultures facilitate innovation because they allow organizations to shift their understanding of what a product, service or technology means. Yet, organic organizations may have to instill mechanistic structures and bureaucratic processes if they produce successful radical innovations. Thus, the basis of innovation can be undermined by its consequences. To explore this issue, this paper analyses data from an ongoing longitudinal case study of a SME digital-design agency that developed a radical innovation for the market research industry. The paper observes that founders of the organization shifted their position to become managers as a result of their radical innovation and that other members of the organization have, consequently, re-evaluated their attitude towards the organization. To conceptualize our findings we turn to the work of Pierre Bourdieu. His notion of fields – which structure experiences and are, themselves, structured by experiences – offers a dynamic framework to provide a better understanding of the dynamics within an organization that occur as a result of a successful radical innovation. The contribution of our paper is: theoretically, we relate the discussion of innovation to wider social theories of practice and, thus, introduce temporal and cultural dynamics into the account of radical innovation; methodologically, we provide an example of a longitudinal study; and, in managerial terms, we indicate where divisions occur within an organization concerning the construction of meaning between managers and employees after a radical innovation.

Keywords:

Fields of Radical Innovation, Bourdieu, Creative industries, Practice theory, Market research.

Research Highlights:

- We provide a longitudinal case study of the experience of employees and managers following a radical innovation.
- Social practice theory is used to interpret the organisation's cultural changes as a result of the radical innovation.
- The radical innovation caused a shared organic organisational culture to become separated and mechanistic.
- The changes in working practice were interpreted in different ways reflected as Fields of Radical Innovation.

1. Introduction

Unlike incremental innovations, which involve technical improvements to a product or service, radical innovations challenge what Verganti and Öberg (2013, p. 87) call the “existing paradigmatic interpretations” of a product or service. We might even go as far as to say that radical innovations are started from shifts in the meaning of a product or service within an organization – which can emerge from interactions with external sources (Story, O'Malley & Hart, 2011), the agenda-setting power of senior managers (Möller, 2010) or the passions of entrepreneurial employees (Verganti & Öberg, 2013). For example, reframing the mobile phone as a portable media centre marked a radical innovation. Even before any technological developments, this shift challenged the existing assumptions about what the mobile phone could be used for and what value it could create.

But what happens within organizations when existing paradigmatic interpretations become obsolete? If radical innovation involves new frameworks through which members of an organization relate to products, customers, suppliers, and technologies, we might assume that radical innovation will have serious consequences within an organization. It will at least challenge those who are wedded to old ideas to change in some way. Yet, Möller (2010) tells us that there is both a lack of theoretical “frameworks” (Möller, 2010, p. 361) and “empirical insights” (Möller, 2010, p. 369) concerning these issues. In response, in this paper data analyses are presented from an ongoing longitudinal study of radical innovation within the digital design industry focusing on a case study of a single organization dubbed Truffle. Truffle moved from print and website design to app mobile application (app) development and through one particularly successful app has changed its paradigmatic interpretation of mobile phones to see them as platforms for marketing and increasingly social science research. This shift allowed Truffle to design a radically innovative tool to use mobile phones for bespoke market research. Truffle has since grown exponentially as its technology has been commissioned by large brands. It has taken on more staff and moved to larger premises twice and now expanded with satellite offices nationally and internationally. This, in turn, has required the founders to change their ideas about how innovation is produced. While Truffle began as an organic organization that could grow naturally, they have embraced the agenda-setting role described by Möller (2010). Yet, as we will see, other members of the organization have not necessarily embraced this change.

So, based on unstructured interviews with all employees and managers, and participant observations within the case organization, in this paper we show how a radical innovation affects the ability of members of an organization to make sense of their organizational life. To conceptualize our findings, we turn to the work of Pierre Bourdieu (1983a). His notion of

fields – which structure experiences and are, themselves, structured by experiences – offers a dynamic framework through which we can understand the effects of radical innovation within an organization. The contribution of our paper is as follows: theoretically, we relate the discussion of innovation to wider social theories of practice and introduce temporal and cultural dynamics into the account of radical innovation; methodologically, we provide an example of a longitudinal study; and, in managerial terms, we indicate where divisions occur within an organization that may affect its ability to innovate.

2. Organization structure and radical innovation

It is widely accepted that certain kinds of organizations stifle innovation. Burns and Stalker (1961), for example, conclude that mechanistic organizations, which tend to be more formal, bureaucratic, and inflexible, are less likely to innovate than organizations with organic structures that are more informal, flexible, and open to risk-taking. Duncan (1976) and Daft (1978) confirm that mechanistic structures support execution and organic structures innovation. The challenge for mechanistic organizations is, consequently, to engineer informal, flexible and creative spaces within which people can innovate (Dougherty & Corse, 1995). They may divide administrative, technical and creative functions; incorporate non-work spaces into the organization such as games rooms, gyms, and coffee shops; include designated free time within the working day; and offer symbolic and material rewards for creativity (Bilton, 2010). In contrast, Thompson, Jones and Warhurst (2007) tell us that innovation cannot exist without some level of formal organization. This leaves the challenge for organic organizations to develop systems and structures to support innovation without restricting it. For instance, in the creative industries, organizations tend to start out with low costs, few formal structures and no employees other than their founders (Leadbeater &

Oakley, 1999). As successful projects encourage these organic organizations to grow, they must find ways to become more mechanistic and bureaucratic without losing their ability to innovate (Cluley, 2009; McRobbie, 2002; Oakley, 2004). For these organizations, the problem is not creating informal spaces for innovation but protecting those that already exist.

Increasingly, researchers have argued that, in addition to different organizational structures, there are also different forms of innovation. Researchers distinguish between administrative, technical, product and process innovations (Cooper, 1998; Totterdell, Leach, Birdi, Clegg & Wall, 2002) and acknowledge the differing levels of technological uncertainty, business inexperience and cost involved in certain forms of innovations (Green, Gavin & Aiman-Smith, 1995). The distinction between incremental and radical innovation, in particular, has allowed researchers to unpick the effects of organizational structure on innovation (See Veryzer (1998) and O'Connor (1998)). Olson, Walker and Ruekert (1995) link informal and flexible organizational structures with radical innovations. Whilst, in developing a model to predict the impact of organizational structure on innovation, Menguc and Auh propose that “informal structure did not have a positive effect on RPIC [radical product innovation capability]” (2010, p. 829). They suggest that developing radical innovation requires more than an informal structure even though informal structure, “contrary to expectations, had a positive effect on IPIC [incremental product innovation capability]” (Menguc and Auh, 2010, p. 829). Supporting the complexity involved in identifying the antecedents to develop radical innovations, Story et al., (2011) found that radical innovation is typically built on interactions across organizational functions and divisions and is often the result of intra-organizational networks and collaborations.

3. Identify, culture and discourse and radical innovation

One reason why organizational structure does not correlate significantly with an organization's ability to produce radical innovations may be that structure is, itself, only a proxy measure for the real determinant: an organization's culture. Pettigrew (1979, p. 570) defines organizational culture as a "system of terms, forms, categories, and images" through which "a given group at a given time" gives "tasks meaning." Child (1972) tells us that formal measures of structure offer an indication of such organizational dynamics but they do so at one remove. They overlook the kinds of office politics, networking and horse-trading through which decisions actually get made.

In this regard, it is note-worthy that Büschgens, Bausch and Balkin (2013) find no correlation between organizational structure and the likelihood that an organization will produce radical or incremental innovations from their meta-analysis of 43 studies which, when combined, covers 6341 organizations. But they do identify a negative correlation between high-levels of hierarchy with innovation and find that managers of innovative organizations tend to emphasize "an external and flexible orientation" (Büschgens et al., 2013, p. 777). Likewise, Möller (2010) argues that the ways that managers construct meaning and order from the dynamics of their business networks forms an important first step in the process of producing radical innovations. Such factors, unlike formal measures of structure, are inherently dynamic (see Beech, 2011; O'Doherty, 2004; Collinson, 2003; Thomas & Linstead, 2002).

Yet, as Möller notes, while concepts developed within organization studies such as sense-making offer an explanation for the emergence of radical innovations, innovation researchers "lack frameworks that allow us to understand how firms can make sense of and navigate in radical innovation" (2010, p. 361). In other words, we need to turn our attention from structure to culture and to explore the effects of radical innovation rather than its causes.

Indeed, Pettigrew tells us that sound theory of organizational culture must “take into account the history and the future of a system and relate them to the present” (1979, p. 570) – a point echoed by Perks and Roberts when they call for studies “researching activities in the past, the present and extrapolating the future, helping build a more complete, holistic view” (2013, p. 3).

4. Social Practice theory

To conceptualize the dynamic changes to an organization’s culture around a radical innovation, we can turn to the sociology of culture. In particular, in this section, we will briefly overview Bourdieu’s (1983a) description of the fields of cultural production.

Bourdieu, a French sociologist, developed the concept of the field as a way to structure the cultural processes that produce innovation. He focused on explaining cultural innovation such as the development of new art forms but, as his framework focuses on the cultures that develop between people, for our purposes we will modify Bourdieu’s (1983a) work as the Fields of Radical Innovation. The reason we turn to this framework, to be clear, is not to add another explanation for the causes of radical innovation but to provide a better understanding of the dynamics within an organization that occur as a result of a successful radical innovation.

Bourdieu (1984) sees innovation as a practice. That is to say, as being based on shared procedures, understandings, engagements that shape what people can do (Bourdieu, 1984). These are typically structured through a binary opposition of commerce and autonomy (Bourdieu, 1983a). Commerce focuses people’s attention on the production of economic capital. It encourages conventional working practices and mechanistic forms of organization.

Autonomy, in contrast, produces artistic capital. It encourages unconventional working practices and organic organizational forms (see Becker, 1982).

Importantly, Bourdieu (1983a) argues, innovation occurs in social fields where neither commerce nor autonomy can dominate. In any innovative field the commercial will rely on the autonomous and vice versa. As Bourdieu puts it, the “specificity” of the field of cultural production is that “the more completely it fulfills its own logic as a field, the more it tends to suspend or reverse the dominant principle of hierachization” (1983a, p. 38-39). Because of this tendency, individual actors, who adopt particular dispositions towards commerce and autonomy, may find that they are repositioned in an innovative field through the process of innovation itself. For instance, a cultural producer who values artistic ideals and the freedom to innovate at the expense of economic security may find that their ideas, if not their work, are taken up by others to produce economic value. In this sense, there is “a generalized game of “loser wins”” among innovative fields (Bourdieu, 1983a, p. 39).

Innovative social fields must be understood, then, as structures that are constantly restructured. Individuals can adopt their own disposition, or attitude, to innovation and it is possible that, over time, what counts as innovation may alter but they do so in the context of the practice itself. Indeed, Bourdieu (1983a) describes fields as “structured structures” (1986, p. 178). What is considered commercial and autonomous will be constantly revised as new landmarks emerge in a social field to mark the boundary of each category. These landmarks might refer to past experiences, anecdotes or established interpretative repertoires.

Individuals position these landmarks within their field according to their disposition and they then act as “privileged references [that circumscribe] the small network of privileged allies and adversaries proper to each category of producer” (Bourdieu, 1983b, p. 138-139). Yet, as

these landmarks provide structure for new action, they can, themselves come to reshape the terrain of a field.

5. Research aims and methodology

Based on our reading of social practice theory (Bourdieu, 1983a), we seek to go beyond formal measures of an organization's culture, such as structure, to explore how a radical innovation structures an organization's culture. With this in mind, the main research question we pose is: what impact does a successful radical innovation have on an organization? To answer this question we have focused our analysis on two research sub-questions. First, we ask what management interventions are put in place following a radical innovation? Second, what impact do management interventions following a radical innovation have on employees in an organization? To answer these questions, we turned to case study data gathered as part of an on-going longitudinal study of a creative organization. Below, section 5.1 describes the case organization, section 5.2 details the rationale for the research and explains the methodology behind our data and analysis.

5.1 The case organization

Our research site is a single organization operating in the digital design industry – dubbed Truffle. Digital design agencies provide business-to-business design and software development services. Typically, a client will task a digital design agency to develop an incremental innovation. Occasionally, a radical innovation may be commissioned or an ambitious or serendipitous digital agency will drive a radical innovation as a result of ideas that have stemmed from collaborative projects.

Truffle is based in the midlands region of England. They were founded by two friends in the late 2000s. For the first four years the head-count doubled. For this period the staff turnover was virtually zero. The client-base covers local, national and multi-national organizations across a number of industry sectors.

In its early years, the organization worked through a number of unstructured practices that helped to organically develop a shared culture. All staff were co-located in a room.

Everybody contributed to projects if needed. All staff were given flexible working hours.

The founders would give staff time to go record shopping to select inspirational music for the office. Recruiting through a network of friends and family it was often described as a “family” by the founders and employees.

Throughout its existence Truffle has developed new offerings in response to market trends. Originally, they offered bespoke design services but now specialize in developing apps for mobile devices. This is a market that is critical to both business-consumer and business-business transactions. Demonstrating the importance of these technologies, in a recent special issue of *Industrial Marketing Management*, Wiersema (2013, p. 476-477) observed that mobile technologies demonstrate “technology's disruptive power” as they are “eliminating the physical constraints of geography and co-location” and making “certain B2B practices obsolete.”

The radical innovation that has contributed to the success of Truffle builds on smart mobile phone technology. Following an initial project for a global client and private investment, Truffle launched a mobile app for the market research industry. While market researchers have traditionally adopted social science research methods to collect market data, mobile

devices now allow research participants to take photos, record voice messages, answer questions and keep diaries through their mobile devices, in situ. Truffle was an early adopter of this new understanding of mobile phones and one of the first to market with a customizable app that allows brands to gather this data. Their technology has now been adopted widely in the market research industry, translated into a number of languages and has received a number of market research innovation awards.

As this paper focuses on the impact of radical innovation, the data presented will focus on the effects of radical innovation within the organization rather than tracing the causes of the radical innovation. Many of the changes reflect typical metrics of organizational growth as discussed in sections two to four. For example, the organization has been required to move to larger premises twice to accommodate its larger staff numbers. However, other changes reflect changes in identity, culture and discourse as discussed in sections two to four above. Before presenting our data, in the proceeding section we will summarize our research methods.

5.2 Data gathering and analysis

Despite practical problems of conducting longitudinal research (Pettigrew, 1990), regular interviews, survey questionnaires, observations of regular meetings and diary studies of informal conversations and coding of notable events have been recommended by various researchers (for example, Perks, Gruber & Edvardsson, 2012). Such methods help to represent the “temporal sequence of events that unfold” around innovation (Van de Ven & Huber, 1990, p. 213).

In keeping with these recommendations, we observed meetings and informal discussions at Truffle shortly after inception. We recorded thick descriptions and field notes in diaries. Unstructured one-to-one interviews were conducted with all ten employees who had worked at Truffle for at least six months in the summer of 2011. This followed the first 36-months of study and was designed to consolidate pertinent observations. A list of participants can be found in Table 1. Interviews took place during standard working hours in non-work related environments. Interviews lasted between 60-90 minutes. The interviews were unstructured but the interviewer probed each participant in relation to the research questions. All interviews were conducted by one of the researchers to ensure consistency in probes. All interviews were recorded and transcribed prior to analysis. All names and sensitive information concerning the organization and participants in the study have been anonymized through pseudonyms.

Table 1. Description of participants, position in company, time in the organization and team. At the time of data collection these participants represent all employees and managers in the organization.

-Insert Table 1 here-

6. Findings

As our study answers the research question through two sub questions, we present relevant findings below in two sections. Thick descriptions, field notes and illustrative quotes have been used to answer the research questions. The quotes from our interviews allow members of Truffle to speak through their own cultural resources. We have used open coding as described by Strauss and Corbin (1990) to organize the data. Following on from this, we interpret the data with recourse to social practice theory (Bourdieu, 1983a), as introduced in

section four above, to provide a framework “to understand how firms can make sense of and navigate in radical innovation” (Möller, 2010, p. 361).

6.1 Management interventions at Truffle

One of the most profound changes since the radical innovation at Truffle has been that the founders have become managers (Parker, 2004). That is to say, as Truffle has evolved into a larger organization through its radical innovation, the founders have recognized the need to change the way they support the organization’s culture. They have long-known the importance of creativity. Michael, one of the founders, explains that “*everything starts with the idea, the creative.*” In addition, early on they recognized the importance of an organic organizational culture. As Michael explains: “*Our approach has always been, for want of a better word, an organic approach and that was representative of our name and choosing the name [Truffle] as a company.*” But, since their successful radical innovation, they no longer they see themselves as part of the organic culture. Now they see themselves as setting the agenda of the organization – which Möller (2010) describes as a key part of creating radical innovations.

This shift is reflected in the physical layout of the organization. As Truffle grew, its original open-plan shared workspace became impractical. In response, the workspace was first split into two sections: the founders shared an office and all other staff shared a single workspace which included a gaming space. However, this could not accommodate further growth. At the time of our interviews, they were moving into new workspace with ten rooms which, Michael acknowledged would “*have a dramatic effect on how we are set up, we won’t be as open plan.*” To counter this, they have installed a recreation room. It represents an attempt

to maintain some element of the original, open, organic culture within the new premises. It is a space where they can be in work but not at work.

The organization structure has also been redesigned as a result of Truffle's radical innovation. As the company expanded its offerings in software development, they have recruited more technical experts. As a result, the organization, which once prided itself on its open, shared workspaces as a metaphor for its culture, has now split into two teams: creative and technical. The creative team continues to develop innovative marketing solutions for Truffles' clients. The technical team supports them. Recognizing the potential for this division to undermine the organization's culture, the founders insisted on a weekly meeting for all staff. In the meeting, staff update each other on their work and share ideas. The meetings are unstructured, informal and egalitarian. There is no scheduled start time or agenda and meetings have a very social feeling.

Truffle has also instigated more formal management practices to help them administer their projects. In particular, the organization has invested in scheduling and project management software and a customer relationship management system to ensure they keep abreast of projects. These systems structure the workloads for all projects and employees and have come to structure more of Truffles' activities including invoicing and quoting for work. Again, in an effort to compensate for this increased structuring of the work, the founders have sought to produce spaces for Truffle to exist as a culture away from these structures. As Michael puts it, the founders have started "*[to pay] attention to how the relationship can be brokered outside of the pressures of the primary work environment.*" This takes the form of football games and trips "*down the pub...most Fridays.*" In addition, the founders have instigated a policy where all staff are funded to engage in non-work related training. Michael

explains the logic behind these initiatives: the *technical* team, he states, need to be “[protected] from some of the plethora of ideas that sometimes the creative types have to get their head into” while the *creative* team needs the freedom “to just talk.”

We can see, then, how the founders of this organic organization have shifted their role within the organization. Many of these changes relate to formal characteristics of the organization but, as we have seen in this section, the response by the founders of Truffle has also involved attempts to maintain an open, organic and shared culture. In so doing, the founders have cemented their position above the shared culture of the organization. No longer are they equal members of the organization but now they have responsibility for managing the organization and this importantly includes taking responsibility for the organization’s culture. Now, in short, they have to intentionally engineer an organic culture when previously they were equal participants in an organic culture that developed serendipitously.

6.2 Experiencing radical innovation at Truffle

So far, our account has focused primarily on the founders of Truffle. In this section, we will look at that other members of the organizations. Their interpretations are largely framed in terms of their individual experiences of the organization’s development and, as such, experiences are equivocal throughout the organization.

In terms of space, for example, some staff at Truffle are now skeptical of the extent to which the office can be considered anything other than a place of work. A Senior Producer, Edward, explains that the changes to Truffle have made the workspace into “*an office.*” In this regard, we are alerted to an immediate difference between Edward and Michael, the

Managing Director. Whereas Michael talks about Truffle as “a space” or “a studio”, Edward talks about it as “an office.” Indeed, Edward himself notes this distinction:

“It feels more like an office now and I notice I don’t call it a studio anymore I call it the office because it feels like an office, it doesn’t feel like a studio. The studio felt like a studio ... in the early days ... but it just feels like an office now because the dynamic of how it is and how it’s managed is more like an office as opposed to a studio.”

Edward, as one of the longest serving members of the organization, contrasts the early days at Truffle and his present experiences. He points out that this might well influence his interpretation of Truffle as it is now. He continues: “people who weren’t there from the start wouldn’t have known the difference, they just know what it’s like now so for me it’s quite a change.” He explains that, the new office arrangements, in particular, have made work repetitive and less social. He states:

“The day becomes repetitive because we are listening to Radio 1 a lot and I know it’s not really something that should affect it a lot but because of that the office environment has changed...It’s not me being anti-social, if I want to speak to someone outside of work I will but in work I have to just basically put my headphones in and get on with it because otherwise it won’t get done and that’s an element that’s different in that we don’t seem to sit even during work and talk to each other.”

In other words, for Edward, his desire to work in an open plan and social office, which he experienced in the early days of Truffle, has led him to respond to the new workspace in

precisely the opposite way than that intended by the founders. He puts his headphones on during work and shuts out his colleagues entirely. Here, it is worth contrasting Edward's experiences with earlier observations from the study. In its early years, music was a key part of the culture at Truffle. The founders would regularly take staff shopping for vinyl records to play in the studio during work hours. Now, though, they only listen Radio 1 (see Korczynski, 2011 for a further discussion of the symbolism of music in the workplace). It is this difference between the music in the studio then and in the office now which Edward uses to structure his experiences of Truffle. The result is that Edward now experiences Truffle as a "*normal job.*"

Considering the open-meetings, we also see how attempts to manage radical innovation can produce unintended consequences within an organization. With no agenda and no requirement on staff to attend these meetings many staff miss them to concentrate on their work. As Tracy, a Junior Creative, puts it: "*we're meant to have group meetings on Monday mornings but of late, just coz everyone's busy, especially, you know, (Creative Director, Managing Director and Technical Director) are always swamped as well, so a lot of the time that hasn't been happening lately.*" In place of the meeting, smaller meetings are organized by particular groups of staff. So, the open meetings that were designed to encourage the organization to come together as one have resulted in more disparate meetings.

Finally, looking at the attempts to counteract the formalization of work processes by facilitating staff to socialize and pursue their creative desires outside of the organization, we also see the unintended consequences of managing radical innovation. Edward explains that since the organization has put more formal processes in place he has started to see Truffle as "*more like a production line and a production company.*" Of course, this was precisely the

danger that the founders acknowledged. However, their attempts to deal with this danger have been counter-productive for Edward. Unpicking Edward's explanation for his interpretation, again, we see him rely on a comparison between his early experiences of Truffle and his current experiences. Edward states:

“If I had a choice of working half a day with everyone on a creative project at Truffle or spending half a day with some friends doing something completely different that is another interest I have, I'd choose getting out of the office every single time. Whereas maybe two years ago I would have chosen to do something creative [at Truffle], if I have half a day to do creative stuff I go home because if I have half a day I would rather go and do something I wanted to do, the whole point of me working now is to enjoy the things I do outside of work rather than trying to work with each other. It goes back to, I guess, it's less personal now so instead of me wanting to do creative stuff with everyone else, I don't. I just want to go and do my own thing.”

Comparing the explanations given for the management of innovation at Truffle in the previous section with the interpretation of those in this section, two features of our study come to the forefront. First, we can see that, as predicted, as a consequence of the radical innovation the organization has had to become more managed. Second, we can see how attempts to manage radical innovation going forward are constrained by past experiences. We might account for this as nothing more than anxiety about organizational change and nostalgia for past times. But whatever their cause, it is clear that such comparisons across time have consequences for the ways that workers experience their organization after a radical innovation.

7. Discussion: making sense of radical innovation at Truffle

We can now answer the main research question (what impact does a successful radical innovation have on an organization?). We have seen how a successful radical innovation can effect, rather than be effected by, an organization's culture. As we have seen in answering our first research sub-question, Truffle's founders have become managers. They now attempt to engineer an organic culture where, in the past, they were an equal part of a truly organic organizational culture. But this past is not irrelevant to the current organizational culture. Rather, as we have seen in answering our second research sub-question, members of the organization use their past experiences to make sense of the organization in the present.

While organizational culture and sense-making are clearly important concepts for our case. There is something missing in between them. What we need is a framework that shows how an organizational culture is constructed by making sense of the past. That is to say, we need a framework to understand the organization as what Pettigrew (1979, p. 570) calls "a continuing system with a past, a present, and a future."

In this regard, we can return to Bourdieu (1983a), who operationalizes his concept of fields in order to understand how past innovations structure future ones. He offers a range of schematics, typically incorporating some form of closed two-by-two matrix, to translate the logics of commerce and autonomy into a specific field. For example, when writing about the rules of art he compares new and old art as one axis and profitable and unprofitable art as another. In the remainder of this section, we will adapt his ideas to produce our own schematic for the field of radical innovation at Truffle.

-Insert Figure 1 here-

Figure 1. Fields of radical innovation: The impact of radical innovation on the manager's experience of the organization as a result of the management interventions. Adapted from Bourdieu's (1983a), for the field of radical innovation at Truffle we see mechanistic and separate cultures reflecting the commercial, and organic and inclusive representing the autonomous.

-Insert Figure 2 here-

Figure 2. Fields of radical innovation: The impact of radical innovation on the employee's experience of the organization as a result of the management interventions. Adapted from Bourdieu's (1983a), for the field of radical innovation at Truffle we see mechanistic and separate cultures reflecting the commercial, and organic and inclusive representing the autonomous.

From our analysis, the logics of production which Bourdieu (1983a) labels commercial and autonomous produce two axes of the field of radical innovation at Truffle. The first contrasts mechanistic and organic cultures – the former represents the commercial and the latter the autonomous. The founders use this axis to position themselves within the field of radical innovation. As we can see in Figure 1 (left), prior to the radical innovation the Managers took features of the organization, from its name to its shared workspace as landmarks representing their experiences of Truffle as an organic organizational culture. Equally, as we can see in Figure 2 (left), other early members of the organization such as Edward shared this view of the organization along this axis. The second axis we develop to interpret our interview data contrasts separate and inclusive cultures – the former represents the

commercial and the later the autonomous. Like the interpretation of the mechanistic and organic axis, prior to the radical innovation, the managers and the employees agree in their view of the organizational culture being inclusive (Figure 1 and 2, left).

The founders use these axes to make sense of the changes brought about by their radical innovation. They have instilled mechanistic working practices in the organization, changed the office space, and split the organization into distinct teams. But, rather than shift their view of the organization, they have shifted their position within the organization culture. In becoming managers, they have separated themselves from the organization culture.

Likewise, by creating separate teams, the founders disclose a new disposition to Truffle as a field of separate groups within a shared culture. In contrast, other participants use the inclusive to separate axis to illustrate how their disposition to the field of Truffle has changed through the radical innovation. Whereas the founders use their new separation as a way of maintaining their experience of Truffle as an organic culture, others shift their disposition through both axes. For Edward, in particular, landmarks such as the music in the office, which once referred to an inclusive nature of Truffle, are now used to support his disposition toward Truffle as a separate and mechanistic organization. Indeed, this shift even takes a physical form as he now separates himself from his colleagues through using headphones to block out the music of the office.

We can see this difference represented visually in Figures 1 and 2. In Figure 1, which we use to represent the changes in Truffle from the perspective of the founders, the landmarks such as the workspace and working practices represent a shift from inclusivity to separation but not a shift from an organic to a mechanistic culture. As such, we interpret the founders as repositioning these landmarks within the field without there being much effect on the field

itself. For the founders, it might not be the same organic culture as it was before their radical innovation, then, but it is still an organic culture. In contrast, in Figure 2, we can see how other long-serving members of staff use their experiences of the radical innovation to shift the field. Here, the same landmarks are now taken to represent precisely the opposite of what they originally stood for. In this case, the landmarks are not repositioned; rather the field is redrawn around them. As such, even the same landmarks, such as going record shopping, no longer mark the organic and inclusive nature of the field. Instead, they represent precisely the opposite.

From this visualization it becomes clear how the practice of radical innovation has led to a splintering of the field. By repositioning the landmarks and redrawing the field in different ways, the founders and other senior employees are now finding that their experiences of the organization are quite different. The question remains, though, whether these differences will eventually divide to such an extent that they can no longer work together in the practice of innovation. If this happens, we predict, senior employees such as Edward may have no option but to leave the organization. The founders will then be able to confirm their dominance over the field – that is to say, their power to define the field – for new staff whose experiences will not be colored by the past of the organization.

8. Summary

This research set out to establish the impact of radical innovation on a creative industry organization. Based on work in organization studies, we suspected that the management of innovation within such an organization would have unintended consequences across time. We addressed this through two objectives: establishing what management interventions were put in place to manage rapid growth and success as a result of the radical innovation, and

what impacts these interventions had on Truffle employee's experience of the organization. We subsequently demonstrated how literature borrowed from the sociology of culture (Bourdieu (1983a) can provide insights into the implications of management interventions.

The study on which this paper is based has been conducted over a 36-month period with a digital design agency based in the UK. This agency has grown quickly over its three-year existence by offering innovative marketing solutions for its clients and, in one instance, has already produced a radical innovation in the form of an award winning piece of market research technology. However, through a longitudinal approach, the study has witnessed how the company's successes have led to the adoption of explicit project management, human-resource and accounting systems. While the company has undoubtedly been financially successful, some of these practices have led to employee frustrations and a feeling among some staff that the company is no longer open to innovation. As such, based on a unique longitudinal dataset, we suggest that the organization of successful innovations can present barriers to future innovation within an organization as they provide landmarks which members of the organization use to construct their own experience of that organization's culture.

Here, we have seen how attempts by managers to actively maintain an organic culture within their organization can be counter-productive for particular employees involved in creating and executing future innovations. The former's shift supports Möller's (2010) belief that managers must set the agenda within an organization if that organization is to produce innovation. However, the latter finding suggests caution. It shows us how taking on the agenda-setting role can, itself, undermine attempts to maintain an organic organizational culture. When some members of an organization become managers, other members of the

organization inevitably find their relationship to their work and the organization changes. To provide a framework to understand this we have turned to Bourdieu's (1983a) concept of fields. The temporal aspect introduced by Bourdieu's (1983a) framework helps us to appreciate the differences between management attempts to create an organic culture in an organization – which has been the focus of the extant research – and management attempts to maintain an organization culture – which has been relatively overlooked in the marketing innovation literature.

9. Implications

Our findings are based on a single case and this means we must be cautious about drawing wider conclusions. But we believe that it is only by exposing the effects of radical innovation within an organization that further research can investigate how managers can balance the need for efficient and effective administration with the need for an open organizational culture that can accept new ideas and new meanings. Indeed, research exploring social processes such as sense-making rarely allow researchers to offer set courses through which managers can optimize their organizational practices. However, it is worthwhile considering possible managerial implications for managers and long-serving staff. It may be that following a radical innovation managers of organizations have to find ways of dealing with the frustrations of long-serving staff. At one extreme, this might involve resetting an organization's culture by accepting that long-serving staff may want to leave or need to leave. Theoretically, this could be thought of as manager's establishing their dominance over the field of radical innovation. Practically, it would allow them to change the frames through which members of their organizations make sense of the organization. Alternatively, it might involve allowing senior staff to share the agenda-setting role by setting out clear paths for progression.

In summary, the contribution of our research is, as follows: theoretically, we have related the discussion of innovation to wider social theories of practice and, thus, introduced temporal and cultural dynamics in to the account of radical innovation; methodologically, we have provided an example of a longitudinal study; and, finally, in managerial terms, the paper gives some indication where divisions occur within an organization concerning the construction of meaning between managers and employees following a radical innovation.

10. Acknowledgements

The empirical data collection for this research project was funded by the Marie Curie Actions research grant FP7-MC-ERG, project number 256599. The authors would like to thank all of the company employees and managers for giving up their time to participate in the project. We would also like to thank Professor Carl Rhodes for providing insightful comments on early drafts of the paper and to acknowledge the three reviewers and editors for excellent guidance in developing the paper.

11. References

- Becker, H. S. (1982). *Art Worlds*, London: University of California Press.
- Beech, N. (2011). Liminality and the practices of identity reconstruction. *Human Relations*, 64(2), 285-302.
- Bilton, C. (2010). Manageable creativity. *International Journal of Cultural Policy*, 16(3), 255-269.
- Bourdieu, P. (1983a). The Field of Cultural Production, or: The Economic World Reversed in P. Bourdieu, *The Field of Cultural Production: Essays on Art and Literature* (pp. 29-73), London: Polity.

- Bourdieu, P. (1983b). The Market of Symbolic Goods'. In P. Bourdieu, *The Field of Cultural Production: Essays on Art and Literature* (pp. 112-141), London: Polity.
- Bourdieu, P. (1984). *Distinction*, London: Routledge.
- Bourdieu, P. (1986). The Production of Belief: Contribution to an Economy of Symbolic Goods', Reversed in P. Bourdieu (1993), *The Field of Cultural Production: Essays on Art and Literature* (pp. 74-111) London: Polity.
- Burns, T., & Stalker, G. M. (1966). The management of innovation. (2nd ed.). London: Tavistock.
- Büschgens, T., Bausch A., & Balkin D. B. (2013). Organizational culture and innovation: a meta-analytic review. *Journal of Product Innovation Management*, 30(4), 763-781.
- Child, J. (1972). Organizational Structure, Environment and Performance: The Role of Strategic Choice. *Sociology*, 6(1), 1-22.
- Cluley, R. (2009). Chained to the Grassroots: The Music Industries and DCMS. *Cultural Trends*, 18(3), 213-225.
- Collinson, D L. (2003). Identities and insecurities: selves at work. *Organization*, 10(3), 527-547.
- Cooper, J. R. (1998). A multidimensional approach to the adoption of innovation. *Management Decision*, 36, 493-502.
- Daft, R. L. (1978). A dual-core model of organizational innovation. *Academy of Management Journal*, 21, 193-210.
- Dougherty D., & Corse, S. (1995). When it comes to product innovation, what is so bad about bureaucracy? *The Journal of High Technology Management Research*, 6(1), 55-76.
- Duncan, R. B. (1976). The ambidextrous organization: Designing dual structures for innovation. In R. H. Kilmann, L. R. Pondy, & D. P. Slevin (Eds.), *The management of organization: Strategy and implementation* (vol. 1) (pp. 167-188). New York: North-Holland.

- Green, S., Gavin, M., & Aiman-Smith, L. (1995). Assessing a multidimensional measure of radical technological innovation. *IEEE Trans Engineer Manage*, 42, 203–14.
- Korczynski, M. (2011). Stayin Alive on the Factory Floor: An Ethnography of the dialectics of music in the workplace. *Poetics*, 39(2), 87-106.
- Leadbeater, C. & Oakley, K. (1999). *The Independents: Britain's new cultural entrepreneurs*, London: Demos.
- McRobbie, A. (2002). Clubs to Companies: Notes on the Decline of Political Culture in Speeded Up Creative Worlds. *Cultural Studies*, 16(4), 516-531.
- Menguc, B., & Auh, S. (2010). Development and return on execution of product innovation capabilities: The role of organizational structure. *Industrial Marketing Management*, 39, 820-831.
- Möller, K. (2010). Sense-making and agenda construction in emerging business networks – How to direct radical innovation. *Industrial Marketing Management*, 39(3), 361-372.
- O'Connor, G. C. (1998). Market learning and radical innovation: a cross case comparison of eight radical innovation projects. *Journal of product innovation management*, 15, 151-166.
- O'Doherty, D. P. (2004). Speed Limits: out of time in organization studies. *Culture and Organization*, 10(1), 77-98.
- Oakley, K. (2004). Not so Cool Britannia, The Role of Creative Industries in Economic Development. *International Journal of Cultural Studies*, 7(1), 67-77.
- Olson, E. M., Walker, O. C., & Ruekert, R. W. (1995). Organizing for effective new product development: The moderating role of product innovativeness. *Journal of Marketing*, 59, 48–62.
- Parker, M. (2004). Becoming manager or, the werewolf looks anxiously in the mirror, checking for unusual facial hair. *Management Learning*, 35(1), 45–59.

- Perks, H., & Roberts, D. (2013). A review of longitudinal research in the product innovation field, with discussion of utility and conduct of sequence analysis. *Journal of Product Innovation Management* 30(6), 1099-1111.
- Perks H., Gruber T., & Edvardsson B. (2012). Co-Creation in Radical Service Innovation: A Systematic Analysis of Microlevel Processes. *Journal of Product Innovation Management*, 29(6), 935-951.
- Pettigrew, A. M. (1979). On Studying Organizational Cultures. *Administrative Science Quarterly*, 24(4), 570-581.
- Pettigrew, A. (1990). Longitudinal field research on change: Theory and practice. *Organization Science*, 1(3), 267–92.
- Story, V., O'Malley, L., & Hart, S. (2011). Roles, role performance and radical innovation competences. *Industrial Marketing Management*, 40(6), 952-966.
- Strauss, A. L., & Corbin J. (1990). *Basics of qualitative research: grounded theory procedures and techniques*. London: SAGE Publications, Inc.
- Thomas, R. & Linstead, A. (2002). Losing the Plot? Middle Managers and Identity. *Organization*, 9 (1), 71-93.
- Thompson, P., Jones, M., & Warhurst, C. (2007). From conception to consumption: creativity and the missing managerial link. *Journal of Organizational Behavior*, 28(5), 625-640.
- Totterdell, P., Leach, d., Birdi, K., Clegg, C., & Wall, T. (2002). An investigation of the contents and consequences of major organizational innovations. *International Journal of Innovation Management*, 6(4), 343-368.
- Van de Ven, A. & Huber, G. (1990). Longitudinal field research methods for studying processes of organizational change. *Organization Science*, 1(3), 213–19.

Verganti, R. & Öberg, Å. (2013). Interpreting and envisioning — A hermeneutic framework to look at radical innovation of meanings. *Industrial Marketing Management*, 42(1), 86-95.

Veryzer R. W. (1998). Discontinuous Innovation and the New Product Development Process. *Journal of Product Innovation Management*, 15(4), 304-321.

Wiersema, F. (2013). The B2B Agenda: The current state of B2B marketing and a look ahead. *Industrial Marketing Management*, 42(4), 470-488.

Dr William Green is a Lecturer in Innovation at University of Leicester School of Management. As a member of the Institute of Ergonomics and Human Factors, his research explores the role of technology in the production of innovation. He has recently led projects funded by Marie Curie Actions, Technology Strategy Board and Health Education East Midlands.

Dr Robert Cluley is a Lecturer in Marketing at Nottingham University Business School and an Honorary Lecturer at St Andrews University. His research explores marketing from a social perspective. He has published in journals including *Organisation Studies*, *Organization* and *Marketing Theory*.