

CREATING ROUTINES FOR INNOVATION: INSIGHTS FROM AN ORGANISATIONAL EXPERIMENT

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Abstract

While organisational routines and innovation may seem to be antithetical, there is a long association in the literature between them, exploring both the routinisation of innovation activities, and innovation in routines themselves. However, progress has been somewhat sidetracked by disputes over the definition and purpose of routines, to the neglect of understanding where they come from and how they develop. Moreover, there are few empirical examples that explicitly attempt to trace the formation and development of organisational routines. This paper outlines evidence from a year-long ethnographic study of a recently formed company that was established to implement small-scale innovation projects. It offered a natural experiment through which attempts to establish new routines for innovation could be observed. To help structure these observations, the paper revisits the original distinction between the cognitive, motivational, and normative dimensions of routines made by Nelson and Winter (1982) and explores the dynamics between them.

Keywords: learning networks, innovation, organisational routines, practice, SMEs

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1 INTRODUCTION

“To understand routines is to understand organizations.” (Becker 2008: 3)

Although it is easy to consider the relationship between organisational routines and innovation as antithetical, the literature has long drawn a positive connection between them (e.g. Nelson and Winter 1982; Schumpeter 1970 [1947]). This is based on the argument that innovation, like any other organisational activity, is amenable to routinisation grounded in regular patterns of knowledge and action. However, while the study of routines has a lot to offer our understanding of innovation, there are a number of ambiguities and omissions in the literature that need to be addressed. Not least of these concerns questions about how routines are created and the extent to which they can be the subject of active design or modification. As Becker (2004) has suggested, the literature has been largely preoccupied with clarifying the definition and purpose of routines. While these are important issues, there has been less attention directed towards the question of where routines come from. Cohendet and Llerena (2003) are an important exception, offering a framework for understanding the emergence and development of different routines associated with alternative sorts of communities within organisations. However, they provide no extensive empirical evidence in support of their framework. This paper aims to address this absence by considering the empirical case of a recently formed company established to pursue a series of small-scale innovation projects. This company was the subject of a year-long ethnographic study by one of the authors. Studying the company from its inception offered an unusual opportunity to observe, *in vivo*, the attempted development of routines for innovation and to explore the conditions that have influenced their emergence.

To guide our interpretation of the case, we follow the call by Coriat and Dosi (1995), repeated by Cohendet and Llerena (2003), to return to the original distinction between the cognitive, motivational, and normative dimensions of routines proposed by Nelson and Winter (1982). From a cognitive perspective, routines operate as coordinating mechanisms and repositories of organisational knowledge. From a motivational perspective, routines are associated with different incentive systems and political relations, operating to stabilise potential conflicts of interest within organisations (‘routines-as-truce’). Finally, in their normative dimension, referred to as ‘routines-as-target’, they act as norms or ideals, either for keeping existing routines in check or for providing targets for their future improvement. This distinction has often been lost in the subsequent literature, which has focused mainly on the cognitive and coordinating aspects of routines.

We argue that the interactions between these dimensions help explain alternative pathways of formation and development that routines may undergo. This is particularly the case under conditions of radical change where shifts in the normative dimension set new targets to aim for. This creates pressures to transform the cognitive, rule-based element of routines and how they are performed in practice. However, since routines also embody particular organisational interests, it is likely that any such changes will disrupt the status quo and overt political negotiations or outright conflict may ensue until a new stabilisation of interests can be achieved. Exploring this framework in relation to our empirical illustration, the paper seeks to address two related questions. Firstly, given that routines are frequently depicted as a strongly inertial force, what are

the kinds of conditions that influence the formation of new routines or the radical transformation of existing routines? Secondly, once processes of routine formation or transformation are set in motion, how do the cognitive, political, and normative dimensions interact in guiding their subsequent development?

The remainder of the paper is structured as follows. In the next section we consider some of the main conceptual challenges facing research on organisational routines and outline a conceptual framework based on the interplay between the cognitive, normative, and motivational dimensions of routines discussed by Nelson and Winter (1982). In the second part of the paper we introduce the case study and attempt to use the proposed conceptual framework as an analytical lens through which to interpret the events that unfold.

2 ORGANISATIONAL ROUTINES: SOME CONCEPTUAL CHALLENGES

While suggesting that the literature on routines has been sidetracked by disputes over definition (Becker 2004), it is nevertheless important to understand what routines are to ground the discussion of where they come from. Becker (2005) indicates three broad ways in which routines have been defined: as collective behavioural regularities; as rules and procedures; or as dispositions to behave or think in specific ways. The first refers to observable patterns of concrete, collectively interlocking activity that have some element of recurrence and consistency (Cohen and Bacdayan 1994; Nelson and Winter 1982; Winter 1964). In contrast, the second definition emphasises potential rather than concrete activity by focusing on regularities of shared organisational knowledge in the form of rules, procedures, and heuristics that guide, but do not determine, collective activities (Cyert and March 1963; Egidi 1996; March and Simon 1958/1993). The third perspective also highlights the potentiality of routines, but instead of concentrating on social rules themselves, either looks at shared individual habits that help to sustain rule-following behaviour (Hodgson 2007; Hodgson and Knudsen 2004a; b); or at the generative character of routines as alternatively combinable grammars of action (Pentland and Rueter 1994).

There is ambiguity about whether routines can involve elements of all of the above, and if so, what the relations are between them. Grant (1996: 15), for example, appears to exclude the rule-following dimension of routines by suggesting that they are able “to support complex patterns of interactions between individuals in the absence of rules, directives, or even significant verbal communication.” Hodgson (2008: 19) explicitly adopts a unitary position in arguing that the concept “cannot usefully denote both potentiality and actuality. It has to denote one or the other, but not both ... Accordingly, routines are not behaviour; they are stored behavioural capacities or capabilities.” (see also, Hodgson and Knudsen 2004a; Hodgson and Knudsen 2004b). Others depict routines in a more multi-dimensional fashion, arguing that the interplay between their behavioural, rule-based, and dispositional aspects offers important insights into how they operate. For example, there are attempts to theorise the simultaneous character of routines as both ostensive and performative, where the former refers to the ideal or rule-based aspect of the routine, while the latter is its specific enactment within a given context (D'Adderio 2008; Feldman 2000; Feldman and Pentland 2003). We take the position that a multi-dimensional treatment of routines is able to provide insights that are likely to be missed by a more unitary approach. The distinction between the ostensive and performative elements of routines is an important one which will inform our interpretation of the empirical example.

Importantly, while mutually conditioning, the relationship between these different dimensions is not fixed. The ostensive aspect does not straightforwardly determine how routines are enacted in practice. The latter is a situated and active accomplishment which always contains the scope for differing degrees of variation, ranging from the non-performance of a routine in a specific situation, to major or minor modifications to its content (Orlikowski 2000; 2002; Suchman 1987). Since routines require active agency in order to be constituted and reproduced, there is always the potential for change as people consciously or unconsciously attempt to adapt and reshape routines to meet the demands of unfolding situations and how they are interpreted (Orlikowski 1996). As Sewell (1992: 20) has argued, “[t]o be an agent means to be capable of exerting some control over the social relations in which one is enmeshed, which in turn implies the ability to transform those social relations to some degree”. The capacity to influence change to routines is bounded, in the sense that the range of possibilities for altering them is not unlimited, but within such constraints their potential for modification is widely variable. How far this is the case, and the degree to which changes are consciously pursued or the result of more emergent processes, are important questions arising from this which we will return to below.

The relationship between the ostensive and performative dimensions is also shaped by the inevitable incompleteness of social rules for all but the simplest of activity sequences. Rules are rarely, if ever, comprehensive and able to account for every situation and eventuality (Reynaud 2005). They are always liable to be misunderstood or misapplied and it would be excessively burdensome, if not impossible, to supply the necessary information to prevent such misunderstandings (as a number of the ‘breaching’ experiments conducted by Garfinkel (1967) clearly demonstrated). Taking inspiration from Wittgenstein, Taylor (1993) has suggested that rules can never contain the principles of their own application. If rules are purely about formal internal representations of what should be done, as the dominant information processing model suggests, then the only way that errors of application can be corrected is through the provision of further rules, which could potentially lead to an infinite regress of rules about rules *ad infinitum*. However, Taylor has argued that rule following is only possible against an unarticulated background of understanding, or ‘form of life’ to use Wittgenstein’s (1953) terminology, comprising an embodied, practical mastery acquired in the form of habits, dispositions, tendencies, and so on. Crucially, the incompleteness of rules and their achievement against a background of practical know-how mean that there is always scope for improvisation within rule-guided action. The creativity at the core of rule following behaviour is also highlighted by the ‘et cetera principle’ in ethnomethodology which suggests that communication is usually based on a mutual assumption of incompleteness (Garfinkel 1967).

The literature on the performativity of routines has opened up new avenues in considering their role in organisational change. There has been an understandable tendency to focus on routines as sources of organisational stability, continuity, and order. From here, the issue is typically framed as how change is possible despite the stabilising influence of organisational routines. Important progress has been made with the suggestion that change is actually endemic to routines because there is always some scope for their performance to be modified each time they are enacted (Orlikowski 1996; Pentland and Rueter 1994). Nevertheless, there is still a tendency to depict change to routines as an incremental process, consistent with their role in evolutionary economics as the organisational analogue of biological genes (Cohen *et al.* 1996). However, the literature on routines-as-performances also opens up the possibility of

characterising them as subject to altogether more active agency and potentially the target of intentional design. This in turn suggests that routines may be the basis for more radical or discontinuous organisational transformation. This has been acknowledged within the literature on dynamic capabilities (Teece *et al.* 1997; Teece and Pisano 1994; Winter 2003). For example, Zollo and Winter (2002: 340) define a dynamic capability as “a learned and stable pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness.” This suggests a clear role for directed learning processes, which in turn emphasises the role of deliberate agency. However, as Hales and Tidd (2009) have argued, efforts to understand how such patterned capabilities for encouraging change are constituted in practice through specific sequences of action in particular contexts are still very much in their infancy. Related to this, there have been few attempts to study in empirical terms the processes through which new routines are created and the varying trajectories of their subsequent evolution (although see, Brady and Davies 2004; D'Adderio 2008).

Since there has been less attention on the formation and/or radical transformation of organisational routines, the theoretical vocabulary for addressing these issues is somewhat lacking. The distinction between the cognitive, motivational, and normative dimensions of routines, we suggest, offers a useful way into understanding what prompts the formation and subsequent development of new routines (see Figure 1). Originally introduced by Nelson and Winter (1982), the implications of this framework were never fully elaborated (although see, Cohendet and Llerena 2003; Coriat and Dosi 1995). Most attention has been directed to the cognitive dimension of routines, including their role in coordinating organisational activities and interactions by promoting regularised, rule-guided behaviour; establishing rules-of-thumb or heuristics for information processing; economising on scarce cognitive resources; and so forth. As Cohendet and Llerena (2003: 274) suggest: “Routines guarantee the regularity and predictability of individual behaviour necessary for collective action. This property refers to the characteristic of routine as organizational memory, and expresses the cognitive and co-ordinating dimension of the routine.”

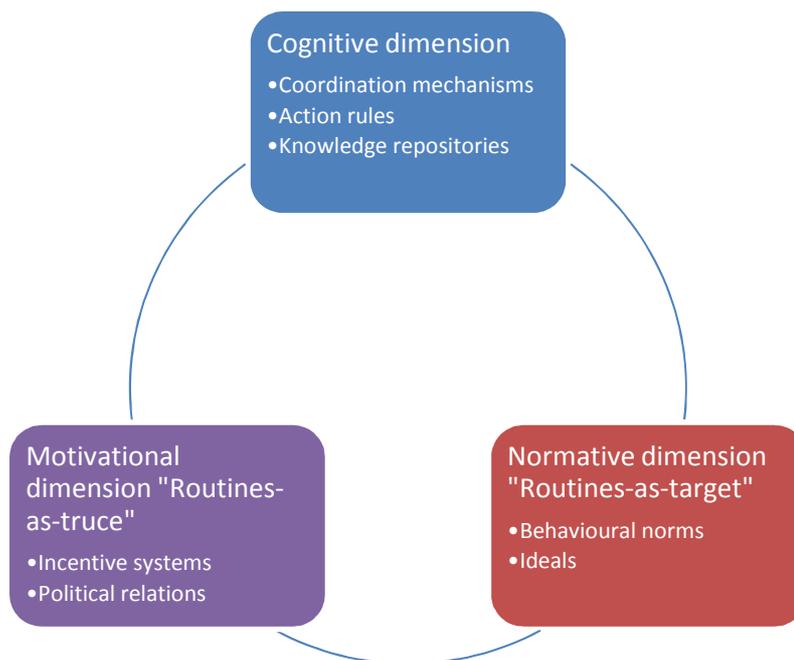


Figure 1 – Interlocking dimensions of organisational routines according to Nelson and Winter (1982)

However, the other two dimensions are equally important. The normative dimension refers to their character as norms or targets against which context-specific performances can be judged (similar to the distinction between ostensive and performative aspects). Crucially, these can relate both to established routines, but also to implicit or intentional ideals guiding future change. For established routines, active organisational work is needed to reproduce them along broadly similar lines. As Nelson and Winter (1982: 112), comment, “[j]ust keeping an existing routine running smoothly can be difficult. When this is the case, the routine (in its smoothly functioning version) takes on the quality of a norm or target, and managers concern themselves with trying to deal with actual or threatened disruptions of the routine. That is, they try to keep the routine under control.” The literature on the performativity of routines suggests that the ability to exert total control over the consistency of routines is always incomplete, resulting in some degree of variation. Thus, even ‘smoothly functioning’ routines are likely to change progressively over time through their repeated performance. This is very much the image of incremental change that has dominated the literature on organizational routines. However, the notion of routine-as-target also opens up the potential for altogether more radical changes. This is because such targets can act as transformative ideals towards which organizational actors direct their efforts. This offers an alternative to the image of routines changing gradually through largely involuntary mechanisms. As Cohendet and Llerena (2003: 277) have argued: “The application of the notion of routine to the competence-based approach is still too strongly inspired by a ‘natural selection’ vision of the organization, and does not yet give enough weight to a managerial vision of the firm.” This is not to say that a concept of effective managerial action should displace the notion of change as an emergent, indeterminate, and open-ended process, but rather that an appreciation of the possibilities and limitations of active design offers an important complement to more anonymous evolutionary influences (Pandza and Thorpe 2010; Simon 1988; 1993).

The final motivational dimension relates to issues around incentive systems and political relations, operating to motivate given behaviours and establish a ‘truce’ between competing organisational interests. According to Nelson and Winter (1982: 108), “... some sort of stable accommodation between the requirements of organizational functioning and the motivation of all organizational members is a necessary concomitant of routine operation. What signals the existence of an accommodation is not the conformity of behaviour to standards of performance laid down by supervisors or codified in job descriptions, but that members are rarely surprised at each other’s behaviour”. In this sense, there is a close interconnection between the development of social norms and expectations and the establishment of stable political interactions between organisational members. However, this does not mean that routines are always passively and unquestioningly followed. Once again, the understanding of routines as situated performances suggests that they are constituted and reproduced through ongoing negotiations which at times may take the form of political conflict.

The real benefit of a multi-dimensional approach to organisational routines derives from considering the interplay between the different elements. As we shall see in relation to the empirical example below, shifts in the normative dimension may prompt changes to the cognitive or coordinating role of routines, which are by no means neutral in terms of their political implications. This can lead to dilemmas between, for example, enhancing routines to improve problem-solving or coordination and risking potentially disruptive political conflict, or avoiding upsetting the status quo and suffering lock-in and

inflexibility. There are important parallels here with the literature on the relationship between exploration and exploitation in organisational learning (Bierly *et al.* 2009; Jansen *et al.* 2006; March 1991). However, this has typically been presented as a trade-off, with routines orientated to one or other approach tending to dominate as they compete for scarce organisational resources. While initially recognised by March (1991), the interplay between exploratory and exploitative routines and the implications of their coexistence has received somewhat less attention, although the benefits of balanced approaches have long been proposed, especially through the notion of organisational ambidexterity (Tushman and O'Reilly 1996). He and Wong (2004) mention in passing that there may be tensions in pursuing coexisting strategies of exploration and exploitation, but the interactions between different styles of routine have not really been extensively explored. We begin from the principle that organisational activity is comprised of a collection of interlocking routines and that the interplay between them is an important and under-researched focus of investigation. In this we agree with Hales and Tidd (2009: 566-567) who argue that the “majority of discussions of routines seem tacitly to consider them in isolation, discretely actioned to produce discrete outcomes”, instead of considering their concurrent operation as associated ‘architectures’. It is with this notion of the multi-dimensionality and interlocking nature of coexisting routines that we approach the empirical example reported in the next section.

3 CREATING INNOVATION ROUTINES: AN ILLUSTRATION

The empirical illustration offered in this paper is about a newly formed company, Innovate Ltd.¹, that was established to identify, select, develop, and commercialise small-scale product and service innovations. The directors and shareholders of the company are all formerly members of a learning network facilitated by the University of Brighton, belonging to the same group that met on a monthly basis to share ideas, discuss common problems, and learn from each other. After a year and a half of these meetings, it was decided that many of the ideas coming out of their discussions had the potential to be taken further as innovation projects. Innovate Ltd. was formed to pursue these projects, which would be complementary to, but separate from, their day-to-day businesses in such diverse areas as IT, design, communications, and landscape gardening. Following the formation of the company, the group faced the challenge of reorienting its activities from informal peer-based learning to the rather more formal task of undertaking specific innovation projects. As such, the development of this company from its inception onwards offers something of a ‘natural experiment’ for investigating issues relating to the constitution of organisational routines.

As we have suggested, the literature on routines has focused more on conceptual development than how to operationalise the key concepts empirically. In part this may be symptomatic of the non-trivial challenges of conducting empirical research into routines. As with other studies of the day-to-day practices of everyday life, the frequently mundane and taken-for-granted character of organisational routines means that they may elude the attention of the observer. Equally, it can make it difficult for participants to offer their own accounts relating to practices which they may not be focally aware of, if at all (c.f. Polanyi 1966). There is a parallel here with research on organisational knowledge, particularly concerning the problems of identifying tacit

¹ The names of the company and various participants have been changed to preserve anonymity.

knowledge (e.g. Nonaka 1994; Szulanski 1996; 2003; von Hippel 1994). Where organisational routines are subject to formalisation and codification in the form of written procedures, codes of practice, templates, contracts, and so forth, it is relatively straightforward to identify them. However, returning to the distinction between the ostensive and performative dimensions of routines, even the most detailed, formal routine needs to be performed and this performance depends crucially on a tacit background of knowledge which is much more difficult to uncover. This challenge is amplified for routines that are almost entirely informal. Where this is the case, there are few if any traces left behind, leaving researchers to make inferences about routines from observable patterns of behaviour and what participants say about them.

In line with our emphasis on the performativity of routines, the research strategy we employed focused primarily on longitudinal ethnographic methods to allow their emergence to be studied *in vivo*. This is consistent with the methodological orientation of other practice-based approaches (e.g. Cook and Yanow 1993; Gherardi 2006; Orr 1996; Wenger 1998). Four main types of data were collected. Firstly, one of the researchers observed the activities of the company over a twelve month period. Monthly meetings were the principal forum through which members discussed strategic and operational issues relating to the company. Consequently, observation of these meetings offered critical insights into how the activities and direction of the company were collectively negotiated. A second crucial source of data was the online message board which the company members used as another important forum for discussion. Indeed, since the company is very much a secondary activity in comparison with the members' main businesses, the message board became the principal channel for communication between the monthly face-to-face meetings. Thirdly, company documentation was collected, including agendas and minutes of meetings, reports, legal agreements, and so forth. Fourthly, supporting material was collected in the form of largely impromptu interviews with participants, offering insights into their perspectives on the company.

The interpretation of the data was informed by the analytical framework discussed in the previous section. This involved attempting to identify patterns in terms of the interlocking cognitive and coordinating practices of the participants, the formal and informal procedures, rules, and frameworks that they elaborated and how these were enacted, and political and motivational issues relating to their shared activities. The interpretation of the data was undertaken jointly by the research team, but also crucially inviting input from participants about our interpretations. Since we are interested in how different routines, and their varying dimensions, emerge and interact over time, we have structured the following account as an unfolding narrative. In doing so, we have segmented the story into a number of phases as a way of highlighting different processes in the formation and development of routines. Rather than a teleological scheme suggesting any necessary progression of stages, this is an interpretative device whereby our bracketing of the narrative permits certain elements to come to the fore.

3.1 Prologue – the learning network

Instead of beginning the story about Innovate Ltd. at the point when the company was formed, it is important to appreciate something of its pre-history in order to understand the events that subsequently unfolded. Although it may seem meaningless to talk about organisational routines before the existence of an organisation to which they can relate, it is important to recognise that the company did not appear fully formed out of

nowhere. As with any newly formed company, those involved in its formation carried with them knowledge and beliefs shaped by their previous experiences which, in turn, are likely to influence how the activities of the company are negotiated. Beckman (2006) has argued that the prior affiliations of founding members of companies help to shape the behaviours of new firms. Where the founding team is largely drawn from the same previous company, the firm is more likely to engage in knowledge strategies focused on exploitation. The suggestion is that common affiliations encourage shared ideas and social bonds that promote rapid agreement on actions. In contrast, members with more diverse affiliations typically follow a more exploratory strategy because they are drawing on a more varied pool of ideas and contacts. However, this study only considered previous company membership without considering other types of affiliation, such as membership of professional institutions, clubs, and networks.

What makes the current case interesting is that the founding members of Innovate Ltd. exhibit both different and common affiliations across various domains of activity. Thus, except for two individuals, the members of the new company all came from different businesses. Additionally, since the company is effectively a side-venture, each of these other businesses represents the main focus of activity for the new company's members. This split affiliation has important implications for the time, resources, and attention that Innovate Ltd.'s members are able to dedicate to the company. At the same time as coming from quite different company backgrounds in rather diverse business sectors, however, the members of Innovate Ltd. crucially shared one common prior affiliation – they were all long-standing participants in the same learning network group which had been together since the end of 2006. Consequently, the founding members brought both a diversity of perspectives and experience from their separate business endeavours, but also shared common experiences in terms of their network participation. We argue that the routines built up during this period of learning network activity were a major influence on the subsequent interaction style and strategic orientation of the new company's management team.

The learning network is an ongoing programme that comprises numerous small groups, each with around 15-20 owners and/or managers from small- and medium-sized enterprises. Innovate Ltd. emerged from one such group. The guiding principle of the learning network is to create a partly structured platform for managers to learn together without making it so rigid as to stifle the creative potential of group interactions by over-specifying the content of activities to be undertaken. The idea is to provide an enabling framework which promotes a collective cycle of reflection in which problems are defined, potential solutions are generated, actions selected and implemented, and the outcomes of these actions reviewed and evaluated. Each element of this cycle is loosely structured internally, in the sense that it establishes a relatively open space within which the group is able to follow any number of directions in their discussions. However, the sequence and broad agenda for each of the activities is standardised to the extent that the meetings are designed to follow the same general pattern.

This is divided into five main activities: (1) Business planning – where each month one of the group members presents a summary of their business activities, describes the opportunities and challenges faced by the company, and outlines their business plan. This forms the basis for a discussion among the group through which problems are defined and possible solutions suggested. (2) Feedback on business planning – in this segment of the meeting managers who have previously presented their business plans are asked to report back on their progress with implementing actions identified from the discussion. (3) Action learning – this part of the meeting is open for any of the

participants to raise issues that they would like help on and invite suggestions about possible courses of action. (4) Feedback on action learning – where group members recount any actions they have taken as a result of suggestions from previous meetings. (5) Business development workshops – each month there is a workshop run by a specialist from outside the group on specific topics, such as finance, marketing, human resource management, e-commerce, etc. Group meetings are facilitated by an independent professional facilitator, sometimes with the help of an assistant. Their role is defined by the designers and managers of the programme to be one of ensuring that the general structure of activities described above is followed and of guiding the group members through the process of reflection without exerting unnecessary influence on the issues discussed.

As we have explored in detail elsewhere (Marshall and Tsekouras 2009), the actual performance of these general routines varies from group to group according to such influences as group dynamics, group composition, facilitation style, and so forth. One of the key differences is in the type of relational norms that develop and evolve. For the group that went on to form Innovate Ltd., there were indications that it took longer than some of the other groups to develop positive socio-emotional characteristics, such as openness, solidarity, attachment, and so forth. However, these features of group dynamics did ultimately emerge, and once they did the group developed into one of the more cohesive of all the groups. As the project manager responsible for this and other groups in the region recalled:

They were the slowest, the group was large and took longer to form. There weren't the responses that I had in my other groups. My other groups were way ahead of [this one]; they were trusting one another earlier. Whether it was the size or the individuals who knows, you can't say exactly. [Now] they are the group that is working the closest. It took a long time to come but when the group got smaller, down to 18, 16 people and even less, they got much closer.

A key feature of strong group dynamics is the belief of participants that their fate is entwined with the group (Lewin 1948). When this is highly developed it encourages a solidaristic orientation towards the group as a potent collective force. This was vividly expressed by one of the members, Hester, in the following terms:

...we as a whole are better than me as one person because I will have a view and I will be dogmatic and I will stick with that view because I think I'm right. But if ten of you tell me it's all ***** and it should be green and not red then it will be green...

It is arguably an indication of the value that the members placed on their group membership that they decided to continue meeting even though they had come to the end of the formal university subsidised programme (which lasted just over a year). They negotiated an arrangement whereby the university would continue to provide facilitation if the group met the costs of hiring the room for their monthly meetings.

3.2 Phase 1 – formation

It was at one of these later meetings, just over a year after the group got together, that the idea of forming a company first arose. The idea was tabled because two of the members, Matthew and Hester, had taken part in a training course on managing

innovation, also run by the University of Brighton. For one of the subsequent meetings they offered to present a summary of what they had learned to the wider group during the time-slot allocated for business development workshops. This was agreed and a presentation was duly made. However, rather than offering an abstract explanation of how to manage the different stages and processes of innovation, they used a business idea about a new web-based service that Hester had been thinking about to illustrate the principles. This prompted a lively discussion during which it became clear that she did not wish to pursue this venture on her own without the help of the group. It was then suggested that perhaps the group could form a company to take the idea forward. This was something that Hester was in favour of:

I like the collaboration because I think this group...everyone has different things to offer ... I think the value of that gives any idea whether it's mine or whatever, more chance of success than me running the business – because we've all got day-to-day businesses to run as well – by myself.

As it turns out, Hester's was not the only idea for an innovation project – Matthew also had a proposal that he wanted to develop and it then transpired that there were several potential ideas across the group for things that they could pursue collaboratively. It was from these discussions that the plan to form a joint company took shape and a consensus emerged that this was something that the group could and should do.

While establishing the company marked a major change of purpose for the group, this did not immediately provide the impetus for the extensive formation of new routines. This can be interpreted by looking at the interplay of the three dimensions of the conceptual framework introduced above (see Figure 2). Along the normative dimension (routines-as-target), the notion of establishing a company for developing collaborative innovation projects represented a new ideal for the group to aspire to. Similarly, the innovation model that Matthew and Hester had learned about through their training course also offered a blueprint for the group's actions. These targets were ostensibly supported along the motivational dimension by a strong consensus around the proposed

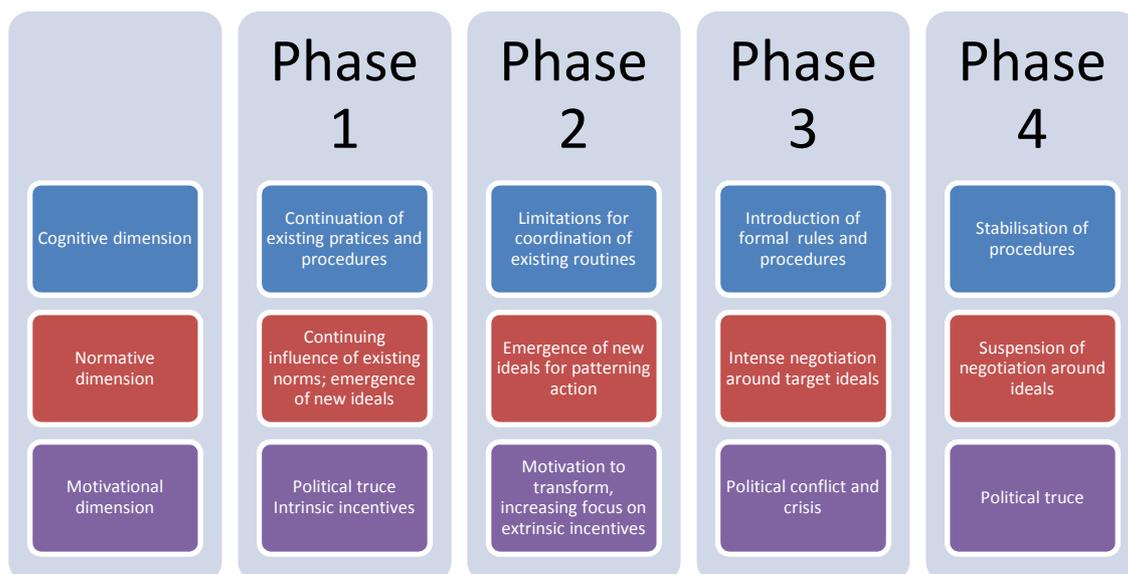


Figure 2 - Phases in the development of routines at Innovate Ltd.

plan accompanied by enthusiasm and excitement for what it might achieve. With these two elements apparently aligned it might be expected that changes to the third cognitive dimension would follow unproblematically, with modifications to the mechanisms,

interlocking practices, and patterns of knowledge through which the group coordinated its shared activities. This is not to say that nothing changed along this dimension – the new company was registered and by doing so the new directors became bound by a series of legal requirements governing their duties, accounting practices, reporting requirements, and other elements covered by company law. In this sense, the act of company formation imposed the need to introduce at least a minimum set of governing routines to meet their legal obligations.

However, beyond this, the approaches for managing the company were not dissimilar to those the group previously used to manage its learning activities. The tacitly agreed rules guiding the learning network group included such features as non-hierarchical relations between the members, principles of democratic decision-making, equality of perspectives, and respect for other opinions. On establishing the company, these collectivist principles were largely carried forward unaltered. All 18 members within the group were given the opportunity to join the company, which they all did. Moreover, given the choice between becoming a director or a shareholding member, all but two of the group took up the former role. This created a flat, if top-heavy, organisational structure where more or less everybody had the same formal authority to shape the direction of the company. This was reinforced by the style of decision-making that was adopted. In the minutes of the company's first meeting, this was officially recorded as "by simple majority". However, in practice, decisions were predominantly made by seeking to achieve consensus among all the directors. As might be expected, different individuals varied in their capacity to influence such decision-making processes. To some extent, this reproduced group roles that had emerged during the learning network period. Two members in particular, Matthew and Marcus, exerted a quiet authority on the group from the outset. As the project manager explained: "... they probably weren't quite as loud as the others but they were very assertive and people respected them greatly because they were intelligent thinking people and when they said something it was important." However, as the group, and later the company, changed in composition and number some of the members' behaviours changed. For example, Jacky and Claire, who run a company together, had been relatively quiet during the learning network period. Jacky especially said very little during group meetings. As Innovate Ltd. developed, however, they both took much more active roles and became increasingly outspoken.

The learning network provided a forum for exploring new ideas and collective problem-solving and, initially, this shared model of group behaviour provided the blueprint for managing the company. Central to this was the continuation of the monthly group meetings, which retained an action learning component, reinforcing the sense of continuity. In the early meetings, there were high levels of enthusiasm and motivation among the members, and discussions were extremely lively. This was a period of experimentation and exploration, where wide-ranging ideas about the nature and purpose of the company were considered. In doing so, the group drew on established cognitive routines that had been built up in the learning network. Consistent with the repertoires the group had learned through their earlier interactions, discussions were characterised by a reflective orientation whereby almost every idea and proposal was subject to open debate and critical scrutiny. In terms of the conceptual framework, it can be suggested that continuity in the cognitive and coordinating practices of the group was underpinned along the normative dimension by the ongoing influence of social norms generated through the group's action learning activities. Similarly, along the political and motivational dimension, the emphasis at this stage was on activities supporting group cohesion and identity-formation. Continuing the interaction style of

the learning network helped to reinforce the social-emotional benefits of belonging to the group.

3.3 Phase 2 – inertia and conflict

As time went on, the limitations of the pre-existing routines started to become evident to some of the members. The experimental orientation was arguably appropriate for the early stages of the innovation projects that the company was seeking to undertake, but as they moved to development and towards implementation, such openness could ultimately become a hindrance (Brady and Davies 2004; Gilsing and Nooteboom 2005). Of more concern to some of the directors, however, were the continuing discussions about the shape the company should take and its governing routines. There were fundamental issues here about the structure of the company, the rights and responsibilities of directors and shareholders, and especially designing a system of incentives that would offer an acceptable balance between individual contributions and rewards. Given the large number of people who were participating in decision-making, this process was unsurprisingly laborious, issues were rarely fully resolved, and, in the continuing spirit of exploration, each new problem was approached from first principles. With the same issues returning meeting after meeting, tensions and frustrations within the group started to mount. As the project manager explained, initial enthusiasm about the venture began to wane and disagreements became more common:

... at the formation of Innovate Ltd. it was really positive. It brought everyone together. A lot of energy, enthusiasm, and joy. We are one! But as we have gone on, that entity ... has caused all sorts of problems. Because people see it differently and have different perceptions. All have different perceptions and it holds different importance to everyone ... As time has gone this has caused friction because people see it as more or less important to their everyday lives.

Some members saw the need for more formal procedures and protocols, while others wanted to preserve the informality and collectivist ethos out of which the idea for Innovate Ltd. emerged. Which view would achieve ascendancy was ultimately influenced by a shift in the balance of interests and motivational basis of the group. While participating in the learning network, more intrinsic forms of motivation were dominant. Members took part in a joint process of giving and receiving advice which, although it was based on the expectation that their individual businesses would benefit, also involved strong elements of solidaristic behaviour. After forming the company, more extrinsic forms of motivation began to exert greater influence, centring primarily on prospective financial rewards. Despite efforts to maintain existing group norms of informality, questions about contribution and reward, that were not so relevant within the learning network, repeatedly came to the fore. Eventually it was agreed that the company needed to have a more formal basis for its operations.

3.4 Phase 3 – formalisation and crisis

As a result, a smaller executive committee was established and given the task of producing a document outlining the structure and procedures of the company. When presented to the wider group, this document was initially welcomed. However, it soon became clear that there were still crucial issues that had not been resolved. This led to an ongoing period of renegotiation where elements of this document were continually

disputed and reworked. Eventually, about eight months after the company was formed, a crisis point was reached where several members resigned within a short space of time. The reason most gave for this was frustration with constantly debating the structure of the company rather than advancing the portfolio of innovation projects. One message of resignation, from Michael, read as follows:

Sorry to say that I've decided to resign from Innovate Ltd. This may not come as a great surprise to those of you present at the last meeting. I don't feel comfortable with the direction we're going in and can't face going through the whole process regarding the structure of the business again.

This all came to a head at one of the monthly meetings, after which four members tendered their resignation. Following this, one of the remaining directors, Derek, posted a message to the company message board commenting on what he saw as the problem and proposing another reworking of the incentive system.

Following this week's rather eventful and turbulent meeting I would like to make some observations, comments and proposals. I think at the beginning of [the company] we all assumed that the commitments, responsibilities and rewards of the various projects would be shared between the whole group, not necessarily equally, but at least shared. The issue of funding/contributions to any particular project now significantly alters that ... The fact that 4 members of the team have decided to leave this month suggests to me (rather obviously) that they do not believe the returns justify the commitments whether that be in terms of time or financially. In the light of these issues I believe the ownership proportions are unfair. Therefore, I would like to propose an alternative.

He goes on to propose a new percentage split between the individual innovation projects and the company which he argues is more equitable, offering higher returns to those who contribute and minimising the benefits of free-rider behaviour. Unfortunately, suggesting yet another change to the company's mode of operation seemed to fan the flames of disagreement. As another member, Larry, commented on the message board: "We agreed the terms only recently. If we now want to constantly chop and change the system – count me out".

3.5 Phase 4 – regrouping and consolidation

At this point, the continued existence of the company looked to be in doubt, but the remaining members managed to stabilise the situation. This was achieved mainly by suspending attempts to reach formal agreement on the group's activities, switching the focus during meetings and on the company's online message board to positively supporting group cohesion and morale, and consciously avoiding conflict. Hester made a plea for the remaining directors to remember the purpose behind Innovate Ltd. and recapture the original enthusiasm: "... I want to drive this forward – not petty arguments ... can we please get back to the PASSION". This was followed by a message from Larry that succinctly outlined the history of the company and offered his perspective on how it was diverted from its original purpose:

In the beginning, there was Hester, she had an innovative idea and realised that to bring this to fruition, she would be best served by inviting a group of people who wished to develop their own businesses to contribute to the development of

her idea ... This led to the formation of Innovate Ltd. The object of Innovate Ltd. was to encourage the presentation of innovative ideas to be scrutinised and, if adopted, to be developed. It quickly became clear that the company required a procedural structure to eliminate all meetings being devoted to these problems. A committee was appointed to create a structure to the Company and, when presented, was adopted by the group. Problem solved, now all meetings would be devoted to pursuing the company's objectives, namely the development of innovative ideas. This did not happen, every meeting spends more time questioning procedure and failing to pursue the company objectives. Result a succession of resignations caused by frustration as the Company continues to fail to fulfil its objectives. Unless the members accept the existing procedure and get on with developing the proposed innovations, I believe it will fail. Vote FOR or AGAINST.

The majority of directors were in favour of this course of action, seeing the continuation of the company in the short term as more important than agreeing its precise modus operandi. There was, however, one dissenting voice. Matthew expressed concern that any attempts to find more effective approaches for managing the company appear to have been abandoned

I asked very valid questions last week and I find it quite extraordinary that no one could reply and say that what was in place worked or otherwise. The only question that was being responded to was whether or not to discuss the issue, a totally benign question if at first you could not answer whether the structure being used was viable!

As a result, he joined the growing group of directors who decided to leave the company. In terms of the motivational dimension, this process of attrition basically established a new political truce – those who remained were in favour of the suggested course of action, those who disagreed felt the need to exit. Along the normative dimension, this involved the temporary suspension of the search for new ideals or targets for the process of routinisation to contribute to. However, this did not necessarily mean that the management team could entirely ignore questions about improving the company's activities. For one of the team, Margaret, the turbulence experienced by the company and its inability to arrive at a stable consensus was framed as a normal process of evolution:

I DO think that as Innovate Ltd. is itself a business, it will go through the normal phases of business life i.e. it will evolve along the way, as surely all our own businesses have and do ... As Innovate Ltd. matures I think it will settle down to a pattern, but at the moment it is in its infancy.

The attempts by the remaining members to recapture something of the initial excitement and sense of commitment associated with the early days of the company acted to divert attention away from issues that were causing disagreement. After repeated persuasion by another director, Michael was even prompted to retract his resignation, asking whether the remainder of the team would agree to have him back. The response was an overwhelming and warmly expressed vote in favour. The shift from negotiating improvements to governance routines to reinforcing the social cohesion of the group preserved the company, but it was unlikely that the formation of more structured routines could be deferred indefinitely. Many of the politically charged issues could be ignored, but that did not mean that they disappeared. Indeed, six months after the

eventful meeting where the company headed into crisis, there were signs that some rather familiar issues were being revisited. For example, there were discussions about what kind of shareholder agreement would be acceptable. On the positive side, this suggests that relationships within the management team were again stable enough for such issues to be debated without too much danger of damaging rifts being reopened. What is perhaps of some concern, however, is the time and effort that has been expended on introducing what are really quite basic governance routines. Nevertheless, one year later and the company is still in existence.

CONCLUSION

Using the example of Innovate Ltd., this paper has attempted to trace the evolution of organisational routines from the formation of the company and through its subsequent development. In doing so we have emphasised the multi-dimensional character of routines and their coexistence as architectures of organisational activity. In particular, we have been guided by the largely neglected distinction between the cognitive, normative, and motivational dimensions of routines originally proposed by Nelson and Winter (1982). Although this is very much a preliminary and provisional attempt to employ this conceptual framework, we would argue on the basis of our initial efforts that there are several benefits in revisiting and extending it. These help to address some of the limitations of the existing literature on organisational routines. Felin and Foss (2004), for example, have criticised this literature for sidelining individual-level processes and heterogeneity in favour of a collectivist theoretical orientation. They lay much of the blame for this on Nelson and Winter (1982). However, by revisiting the latter's threefold characterisation of routines, it is easier to appreciate that the collective order implied by routines is not a naturalistic state of affairs, but instead is the result of active agency and ongoing negotiation (whether explicit or implicit).

The social constitution of routines, involving both individual and socially shared practices and processes, is more difficult to discern when organisational conditions have been normalised. Under these conditions, the recurrent and relatively stable character of routines lends them an appearance of durability. However, by focusing on the empirical example of the emergence of a new organisation, where the individual members are struggling to establish stable patterns for their actions and interactions, it becomes clear that embedding new routines is by no means a trivial accomplishment. Moreover, by emphasising the multi-dimensionality and interlocking character of coexisting routines, issues about integrating multiple routines into consistent organisational architectures come to the fore. As the example of Innovate Ltd. indicates, tensions and contradictions may arise in the interplay between different routines and their various dimensions. Guided by the continuing influence of exploratory routines established during their tenure as a learning network group, the members of the company found it difficult to establish stable patterns of activity for supporting the innovation projects for which the company was established. As Nelson and Winter (1982: 131) have suggested, "success at the innovative frontier may depend on the quality of support from the 'civilized' regions of established routine". The dilemma is what to do when attempting to innovate on both fronts at the same time. Our example suggests there are serious limitations to doing so. In this case, a paradox emerged. Attempts to transform the cognitive and normative dimensions of the group's routines to meet the demands of their newly-formed company resulted in political conflict. This threatened the cohesion of the group and the continuing existence of the company. However, by then suspending further negotiation in order to achieve a political truce, the impetus for improving the

company's activities was removed, which in turn may adversely affect its long-term economic viability. How, or indeed whether, they manage to get out of this Catch-22 situation remains to be seen.

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