**When project autonomy turns into isolation.**

**Understanding the influence of project isolation on project-based learning**

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**Abstract:**

Successfully sharing knowledge through interactions between projects and the organization is, especially in a situation of changing work processes, an important capability for organizations to learn. The aim of this study is to gain insights into the process of project-based learning, specifically by studying how project-based learning relates to project autonomy. Drawing on the data of two teams in collaborative projects, we found that in both projects symbolic, discursive, and spatial practices of isolation were developed that changed the relationship with the permanent organization. We show how these practices contributed to the project teams moving from operating autonomously – whilst still having their goals aligned with the organization – to operating in isolation from the permanent organization. The findings indicate that project autonomy is beneficial for explorative forms of project-based learning, but when turning into isolation project autonomy inhibits the dissemination of knowledge to the wider project-oriented environment.

**Highlights:**

* Project-management literature has ignored the dynamic nature of project-based learning as a process of explorative and exploitative learning
* ‘Project autonomy’ is a useful lens to study the project-based learning
* We identify symbolic, discursive, and spatial practices of isolation, which together strengthen autonomy of a project
* These practices have effects on embedding knowledge in the permanent organization

**Keywords:**

project-based organizations; knowledge sharing; learning; project autonomy; isolation; boundaries

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1. **Introduction**

How knowledge generated within projects can be transferred and applied to the organizational context is a pressing and recurring question in current project management literature (e.g. Bakker, 2010; Grabher, 2004; Pemsel et al., 2016; Söderlund, 2004; Sydow et al., 2004). Being able to share knowledge successfully through interaction between the temporary project and the more permanent organization is seen as an important capability for organizations (Lundin et al., 2015). For many organizations this may be a precarious affair, as they deal with projects that have a high degree of autonomy (Davies and Brady, 2016; Pemsel and Wiewiora, 2013; Scarbrough et al., 2004). According to Hobday (2000), such organizations operate at two, distinct levels: the project level (project management, project control, learning within projects) and the organizational level (strategy, top management, cross-project coordination, learning from and across projects). Due to their autonomy, projects may be less obstructed by rigorous organizational structures and hierarchies, and are therefore places where innovations can often be explored more freely (Bakker et al., 2013; Prado and Sapsed, 2016).

 The autonomy of a project can be advantageous for a number of reasons, such as creating new knowledge (Grabher, 2004) and to stimulate project-based learning (Brady and Davies, 2004). However, transferring knowledge from the project to the organizational context is often fraught with difficulties (Newell et al., 2006; Pemsel and Wiewiora, 2013; Swan et al., 2010). Bakker et al. (2011) call this the ‘project learning paradox’: the autonomy of projects offers opportunities for creating new and innovative knowledge, but disseminating this knowledge is difficult exactly because of this autonomy. Autonomy can create interrupted processes of learning (Hobday, 2000), or may emphasize a strong internal project identification (van Marrewijk, 2007) reinforcing the temporary nature of projects. Moreover, autonomy can turn into isolation and cause a substantial distance between the project and the project-oriented environment (e.g. Courpasson and Younes, 2017; Kidder, 1981). These remarks suggest that, for project-based learning, knowledge should be understood as a dynamic process rather than as a product that can be easily transferred from a project to the wider organization (Newell et al., 2006).

 The aim of this study is to gain further insights into the complex process of project-based learning specifically by studying how project-based learning relates to project autonomy. According to Brady and Davies (2004), project-based learning can be distinguished into different albeit related phases of exploratory and exploitative learning. New projects are usually characterized by exploratory learning, especially so when they engage with innovative ways of working. The exploitative phase occurs when a number of new projects have been undertaken or when projects terminate, that is, when the experiences and knowledge accumulated in project teams are codified and transferred from project to organizational context (Prencipe and Tell, 2001). In this paper, we argue that this understanding ignores the dynamic nature of project-based learning as a process (Pemsel and Wiewiora, 2013; Scarbrough et al., 2004). We show how ‘project autonomy’ is a useful lens that urges us to view project-based learning as a matter of continuously traversing the contextual and negotiated boundaries between the relative temporariness of projects and the relative permanence of organizations (van Marrewijk et al., 2016).

 Based upon the discussion above, the central question in this paper is: how does the autonomy of a project influence the process of project-based learning with the permanent organization? We answer this question by drawing on the data of two projects where new forms of collaborative practices were explored. We chose these projects because both involve inter-organizational collaboration with inherent complex learning processes (Bakker et al., 2011). The difference in the two cases pertains to how both projects started in relation to project autonomy and project-based learning. In the first case, a project team of the Dutch railway system immediately went ‘underground’ to secretly develop controversial plans to build a national and co-located coordination center. This new coordination center had to establish radically new ways of inter-organizational collaboration. The second case illustrates how the project team of a large Dutch municipality examined innovative ways of collaborating with private parties in an urban development project. Whereas the railway team isolated themselves at the start of the project, the team at the municipality did so at a later stage and only after, initially, trying to find ways to stay connected to the permanent organization. Both projects eventually isolated themselves from the permanent organization through symbolic, discursive, and spatial practices of isolation. Although this facilitated explorative forms of project-based learning, it hampered the sedimentation of this knowledge to the organization.

 The contributions of our paper mainly relate to the problematic role of learning in project-based environments (Davies and Brady, 2016; Grabher, 2004; Prencipe and Tell, 2001; Scarbrough et al., 2004). We build on this body of literature by confirming that the difference between project and permanent organization should not be considered as a ready-made categorical difference but one that is practiced and negotiated in situ and on a daily basis (cf. van Marrewijk et al., 2016). We specifically do so by showing how project autonomy is a way to address these dynamics of project-based learning, especially by focusing on the constitution of the delicate tipping point when autonomy turns into project isolation. In this way, our work extends the academic debate on project-based learning by identifying: 1) the triggers leading to project isolation, 2) the symbolic, discursive, and spatial practices through which isolation occurs, and 3) the consequences on project-based learning and how both the temporary and permanent organization play a crucial role in this process.

 This paper proceeds as follows. We first briefly review the project-management literature that has been concerned with relations between the temporary and permanent organization, after which we discuss how ‘project autonomy’ is a useful way to address this relation in terms of project-based learning. We then explain our qualitative research approach and present the findings from both cases. We end the paper by discussing the findings in the light of project autonomy and isolation and draw several theoretical conclusions and practical implications for project-based learning.

1. **Project-based learning in project environments**
	1. *The relation between projects and the permanent organization*

The recent intensification of and difficulties associated with project-based learning asks us to reconsider the relationship between temporary and permanent organizing (Sydow and Braun, 2018; van Marrewijk et al., 2016). Projects are generally considered as being necessarily operating in relative autonomy to be able to reach project goals. As such, they are also places where innovation and change can happen more swiftly (Lundin et al., 2015). To achieve successful interaction between the temporary project and permanent organization, knowledge governance plays a critical role (Pemsel et al., 2016; Pemsel and Muller, 2012). The knowledge-based view assumes that the project and organizational levels should interact to ensure the accumulation of knowledge (Pemsel et al., 2016). In this interaction two challenges are distinguished. The first is related to the internal linking of multiple levels with different knowledge activities within the project (Turner and Keegan, 2001). The second is related to the autonomy of projects versus their interdependencies with the context, or ‘project ecologies’ (Grabher, 2004).

Project-based environments involve a variety of interests and purposes, funding and revenue techniques, contractual agreements and sanctions, legal(izing) processes and procedures by various levels of government, a mixture of public and private initiators, and multiple stakeholders (Cicmil and Hodgson, 2006; Maaninen-Olsson and Mullern, 2009). This variety forms a potentially strenuous context within which projects operate. However, projects not only need to adapt to their context for legitimacy and support, as they also play active roles in shaping that context. That is to say that in order to thrive, projects autonomously craft their plans, purposes, means and ends into the organizational system and, thereby, affect institutional change by co-creating standards of what constitutes a legitimate, acceptable and successful project within a particular socio-political environment (Meyer and Rowan, 1977). Accordingly, the study of temporary constellations in relation to their permanent context necessitates serious theoretical and empirical elaboration and development in the field of project management.

Previous work suggests that the conceptual boundaries between temporary and permanent may be less fixed than usually thought. In her study on film sets, for instance, Bechky (2006) argues that, although film projects are often seen as ephemeral and unstable, they are in fact organized around a structured role system. Moreover, practices in projects may appear to be stable while they are simultaneously in becoming; boundaries and competencies, for instance, are continuously negotiated in situ by project members (Bjorkeng et al., 2009). Complexity, uncertainty and ambiguity are thus central concepts used to describe this type of temporal organizations (van Marrewijk et al., 2008), and collaboration within projects and the project environment can be conflict-ridden and negotiated on a day to day basis (van Marrewijk et al., 2016).

In sum, what these studies suggest is that permanent and temporary are not fixed categories. Instead, these categories only emerge within practice. In other words, differences between projects and permanent organizations, not just inherent to their organizational structures, are actively maintained and constructed on a daily basis. In the context of project-based learning this is an important observation, as it suggests that project autonomy may be an emergent expression of the relation between the project and organization, something shaping when and how learning occurs. Whereas autonomy still implies several ways through which the project and permanent organization maintain connected, isolation is a more ‘extreme’ expression of autonomy where the connection, for the course of the project trajectory, is gone.

2.2 Autonomy, isolation, and project-based learning

One implication of the discussion on the blurring of boundaries between temporary and permanent forms of organizing is that project-based learning is not just a momentary achievement – such as the successful transferal of knowledge as a product – but a continuous performance in which knowledge sharing is a process that is negotiated daily. Yet, the perspective that knowledge is a product is a dominant view in the organizational literature on knowledge. Critics of this perspective (e.g. Blackler, 1995; Newell et al., 2006) argue that knowledge cannot be purely seen as something static that individuals possess, but that knowledge – or rather knowing – is an activity that is embedded within the context of which it is practiced. Knowledge is situated within one’s practices, and sharing knowledge between the project and the organization is not a matter of ‘simply’ transferring this knowledge as it is dependent on the often different meanings of one’s occupation and practices (Brown and Duguid, 2001).

For Lave and Wenger (1991), learning is a social and cultural phenomenon that is not simply transferring abstract and decontextualized knowledge. For them, learning is always a form of situated learning, that is, a process where people collectively connect prior knowledge to a new and specific context. This emphasizes that knowledge is not purely cognitive or mental, as learning entails forms of knowing that are implicit, embodied, aesthetic, or a matter of professional judgement (Gherardi, 2009; Strati, 2007; Willems, 2017). In other words, different communities (e.g. the project team pursuing immediate project goals versus managers pursuing long-term organizational goals) may have very different understanding on how to do something the ‘right’ way. In the context of project-based learning (e.g. the wider organization learning from project knowledge), a focus on knowledge as situated in practices suggests that learning involves traversing communities. Yet, since projects often operate autonomously from permanent organizations this process can be difficult.

 An entity-based view on project-based learning thus fails to account for the dynamics of how projects learn from each other or how organizations learn from projects. Bresnen et al. (2003), for example, studied how a construction company in the UK introduced ‘Regional Engineer Managers’ into several of their departments with the intention to spread engineering- and project-based learning throughout the company. Their case shows how difficult it is to transfer and disseminate knowledge or best practices from members of a temporary community to the permanent organization. Much of the engineers’ knowledge “tended to be embodied and embrained in members of the network of engineers” (Bresnen et al., 2003: 163), suggesting that project-based learning involves the ability to not just transfer knowledge but to transcend boundaries and divisions between communities of autonomous projects and the permanent organization on a daily basis.

 Above, we have discussed that temporary and permanent organizations are not ready-made categories but result from everyday interactions and negotiations. Moreover, local knowledge – which is situated in specific practices of a community – shapes how those boundaries are drawn. Whereas some degree of autonomy in projects is understood as necessary for developing relevant local (project) knowledge (Bakker et al., 2013; Prado and Sapsed, 2016), autonomy may still imply collaboration between the project and the permanent organization (e.g. through collaboration with line managers, control and supporting departments, or legal experts in the organization). In this paper, we mean to say that projects are isolated once they do not only operate autonomously but have also ‘cut the ties’ with existing processes and practices of the organization. Such isolation or secrecy is often observed in the context of innovative, politically sensitive, or controversial projects (Criscuolo et al., 2013; Kidder, 1981) and further contributes to the autonomy of projects by creating strong bonds and a sense of collectivity (Costas and Grey, 2014; Courpasson and Younes, 2017). Yet, it will also shape how knowledge is (or is not) disseminated with the project-oriented environment once the isolated project terminates. This gliding scale between project autonomy and project isolation is the focus of the current paper.

1. **Methods**

For this paper, we use the data from two qualitative case studies. The first study involves an ethnographic research on inter-organizational collaboration in the Dutch railway system, specifically focusing on the newly build national traffic coordination center called Operational Control Center Rail (OCCR). The first author conducted the research between 2013 and 2016, and the fieldwork consisted of extensive observations, 35 interviews, and the analysis of numerous documents. Ethnographic research is aimed at getting an in-depth understanding of the often underlying or implicit aspects of specific (organizational) cultures (e.g. Schwartz-Shea and Yanow, 2012; Ybema et al., 2009). It is a methodology apt to study organizational practices that are not immediately visible or observable, such as processes of organizational secrecy. For this paper we chose to specifically focus on the reconstruction of the development of the OCCR project. We draw on 8 interviews conducted with project team members and project managers who were part of this project. We combined the data of these interviews with the ethnographer’s broader understanding of the OCCR through his field notes and relevant documents.

 The second case relates to a large municipality in the Netherlands, where the whole research team was involved in a study on the municipality as a ‘learning organization’ (Örtenblad, 2002). For the study, we zoomed in on the department of Urban Development, which is involved in the development of large urban areas dealing with a multitude of internal as well as external stakeholders. One goal of the overall research project was to look at the ability of the municipality to learn from projects where new forms of collaboration in area development were implemented. The dataset for this study consists of the analysis of three complex urban area development projects. This paper focuses on one project called Beating Heart. The research is based on internal and external evaluation reports as well as a series of 16 interviews. Together, the group of interviewees represents a cross-section of the organization and involved several project managers and project team members as well as people from the line-organization. The interviews, as well as those of the OCCR case, were recorded and transcribed verbatim.

 We selected these two cases for the following reasons. First, the cases show enough overlap in terms of our theoretical focus. Both projects involved large and complex construction projects, where multiple public as well as private parties together explored new and innovative ways of collaboration to tackle organizational challenges: the OCCR case by means of a control center where different organizations were to be co-located, and Beating Heart by means of finding ways to involve private parties more intensively during the tendering phase of large urban development projects. Second, while both cases show similarities regarding how the project team positioned itself vis-à-vis the permanent organization (i.e. creating project autonomy by means of isolation), the speed in doing so was different. While the OCCR project team developed the project ‘underneath the radar’ from the start to bring a plan that was regarded controversial to fruition, the project team of Beating Heart did so at a later stage. In line with the municipality’s ambition to become a ‘learning organization’, the project team initially attempted to create an open environment where internal and external experts were brought together to stimulate knowledge sharing. The puzzling fact that this project team, eventually, succumbed to an isolation process like the OCCR case, inspired us to investigate the role of project isolation and autonomy in the context of project-based learning.

With these observations in mind we started the analysis of the interviews, field notes, organizational documents and project evaluations. From the close reading of the data, three broad themes emerged. First, in both cases the informants mentioned several internal as well as external factors that they saw as *triggers* for developing a project isolation strategy. The innovative character of both projects was related to the understanding that the project was a way to legitimize organizational performance: in the OCCR case the underperformance of railway operations; in the Beating Heart case the lack of trust in urban development projects and the fear of budget overruns. We concluded that the innovative character of the projects within a complex and politically sensitive context had led to their isolation. Second, we identified several *practices* illustrating how isolation took place and with what intentions. We observed that isolation happened through symbolic, discursive, and spatial practices, leading to a strong internal identification and focus of project team members. Third, we noticed the practices their *consequences on project-based learning*, where isolation stimulated explorative learning while impeding exploitative learning between the project and project-orienteds environment. This affected broader organizational processes such as learning, identification and a sense of belonging.

1. **Case 1: The Operational Control Center Rail**

*4.1. Improving inter-organizational collaboration in a co-located setting*

In 2003, the Dutch railway system, traditionally managed by one organization only, was split up into several different organizations: commercial passenger service operators (including departments of traffic information and rolling stock maintenance), commercial freight operators, and a publicly owned infrastructure manager responsible for, amongst others, traffic control and asset management. The main challenge that emerged from this break was to rethink collaboration, especially in terms of traffic control where the tasks of the different organizations were still highly interwoven. Whereas the movement of trains and the management of disruptions used to be directed by only one organization, the control of operations was now divided between different organizations and, consequently, new forms of inter-organizational collaborative partnerships had to be sought.

This did not happen without a fair share of setbacks and difficulties. A series of harsh Dutch winters in the beginning of the century resulted in several ‘black days’ where the whole system went out of control. People were stuck for hours at stations without any information, and the railway organizations – already in a strained relationship – publicly blamed each other for the breakdowns. Internal evaluations showed that such system disruptions mainly resulted from a lack of communication, and the Dutch government urged the railway organizations to improve collaboration and performance. On Wednesday afternoon April 6, 2005, the computer systems in one of the regional traffic control centers were malfunctioning. This was the start of a series of incidents, eventually culminating in a disruption of the complete railway system. Until the next morning, it was impossible to ride a single train to the city of Utrecht, the major Dutch transport hub.

This incident, caused by a simple broken network adapter, is generally believed to have led to the emergence of the Operational Control Center Rail (OCCR) project, a way to restore public credibility and organizational legitimacy. The OCCR had to become the physical ‘nerve center’ of the Dutch railways where all national disruptions are monitored and managed. The goal of the project team was to improve inter-organizational collaboration by bringing all the rail organizations into closer physical proximity in a new co-located control center. This should result in a ‘learning culture’ at the OCCR where employees are better capable of responding efficiently to the demands of disruptions. As illuminated by a project manager in an interview: *‘Our philosophy was: if we are underneath one roof, we will feel like and become one team, solve problems much better and quicker and, consequently, have more opportunities to evaluate, learn, and improve our operation’* (interview project manager, October 2014). A key assumption was that co-locating the different organizations would stimulate a more informal way of collaboration, and the OCCR was meant as *‘a platform, an environment where people meet spontaneously at the coffee machine’* (interview project team member, November 2014). Ironically, however, and despite the sense of openness that the project team eventually wanted to establish in the OCCR, the project team itself developed the OCCR in isolation and with a sense of secrecy.

*4.2 Triggers for isolation*

The main trigger to isolate the project from the permanent organization was the understanding that the OCCR was a potentially controversial and radical intervention with usual railway operations. It was feared by the project team that this would too easily touch upon and perhaps even worsen the already strained inter-organizational relationships. As one explained: *‘this mutual interdependency* [between organizations] *in railway operations makes it really sensitive’* (interview project team member, November 2014). Due to this sensitivity, changing the autonomous nature of the project into a more isolated one, was a strategy to keep it effectively underneath the radar of the permanent organization and give the project team room to materialize and mature the idea of the OCCR.

A second trigger revolves around finding new form of collaboration between organizations with cultural differences and within an already highly politicized domain. Several respondents assured this: *‘they are different cultures and you must assure every party feels taken seriously’* (interview project team member, November 2014)*.* They thus saw the development of the OCCR as a delicate process that had to consider the, sometimes diverging, organizational cultures and practices of specific communities within an already tense political environment. The project team felt it was necessary to work on the project not just autonomously but in isolation before letting it enter the political arena to become a subject of intense discussion between top-management of the different organizations:

*You enter this strange paradox: if you want to build a mock-up you have to make an official proposal to the Board of Directors, which automatically implies that the OCCR becomes a political issue that will be discussed between the organizations. So, if you don’t tell them about your plans you won’t get what you want, and if you do tell them about your plans you won’t get it either!’* (interview project team member, December 2014).

Developing an isolation strategy is thus not only a decision made by the project team, but should be understood as emerging from the interrelated and sometimes conflicting views and processes of both temporary project and permanent organization. For instance, to materialize the OCCR the project team also depended on organizational support: *‘If we really wanted to build a serious mock-up of the OCCR we would need a lot of money. And this money simply was not there, at that moment’* (interview project team member, December 2014). A lack of funding, in this case, asked for other – creative – solutions, and we can understand the third trigger explaining the isolation strategy of the project as part of the internal processes of the permanent organization conflicting with project goals. Project teams may increase their autonomy by going ‘underground’ in order to avoid politicization of their goals.

*4.3 Practices of isolation*

The OCCR project team isolated the project in three different but connected practices: (1) symbolical practices, (2) discursive practices and (3) spatial practices. To elaborate the symbolic practices, most interviewees explicitly talked about the start or kick-off of the project as a moment in which a ‘pioneering spirit’ was adopted in order to be able to creatively approach controversial and sensitive topics in the railway operations in terms of inter-organizational collaboration. One project manager remembers the project team to be highly aware of the fact that railway organizations were usually biased to find solutions to organizational challenges by resorting to technocratic ideas of improving the system: *‘But we* [on the contrary] *wanted to give substance to the social and psychological aspects of collaboration. One of the ways we did so was to build the OCCR mock-up in, literally, a secret way’* (interview project manager, December 2014). Creating a sense of secrecy and pioneering spirit, the project set a first step in creating more autonomy, isolating the project symbolically from the permanent organization.

Second, discursive practices were found to further isolate the OCCR project. The team perceived their project to be a change project with potentially radical interventions in the railway operations, and many claimed that the project was a way to start doing things differently. Some explicitly talked about creating a ‘strong project culture’: *‘We really drew on the work of Kotter* [a change management guru]*. The project team became this “champions group” that slowly but surely made others enthusiastic for the idea of the OCCR, too’* (interview project team member, November 2014). Although the strategy of the ‘champions group’ was to generate enthusiasm in the permanent organization, the project team openly talked about ‘elites’ and ‘champions’ who led the project. This discursively isolated the project team from the permanent organization further by drawing boundaries between those belonging to the project and those who did not, especially in terms of creating a strong internal focus with committed team members that spoke their own ‘project language’.

 More concrete, still, the project was isolated by spatially removing the temporary team from the permanent organizations. To stay underneath the radar, the first version of a mock-up OCCR was built in the cellars of one of the organization’s headquarters. During the process the different parties realized that, despite the earlier split up between the railway organizations, they were still able to access each other’s operational systems. So, with a bit of creativity the project team built the first version of an OCCR by connecting several different systems onto one screen, such as traffic control, coordination of rolling stock, planning schemes for train personnel, asset management’s maps to visualize the state of the infrastructure and planned maintenance work, etc. The pioneering spirit was reminiscent of a form of informal collaboration where organizational boundaries were easily lifted in order to reach a common project goal:

*Someone from traffic control had some money left from their education budget, and someone else found leftovers from the budget of a renovation of the computer networks… One guy said: ‘Yeah, I can arrange some PCs’ and someone else: ‘I will contact this supplier and ask for a big display and video-wall. I can arrange it at a low price if I promise him that, should the OCCR become successful, he will get a good deal’. So, we made a lot of deals and arrangements, found some desks, and we were ready to start* (interview project team member, December 2014)

It would be too easy to interpret the three isolation practices as only consequential of the intentions of the project team. The secrecy around the OCCR project did not so much concern the hiding of information of the project team from the organization, as secrecy should be understood as a social process that needs to be actively maintained in an ‘ongoing, iterative and dynamic relationship’ (Costas and Grey, 2014: 1424). At the very least, this case shows that organizational structures did not prevent the isolation from taking place, and one could even argue that the three practices were at least passively encouraged by the permanent organization. As discussed, the lack of funding from the side of the organizations to establish an OCCR mock-up contributed, perhaps unconsciously, further to the project team gliding from autonomy into isolation. Yet, even while isolated, several directors were still visiting the project team on a regular base to stay up to date about the project’s developments. This suggests that also from the organizational side it was acknowledged that the project was necessary to reach certain organizational goals (i.e. building a controversial co-located center), but that this could only be done in an autonomous, and at points even isolated project.

*4.4 Dissemination of experiences to the broader organizational context*

After several months of practicing and experimenting, the project team had built a working mock-up OCCR, which they then presented to the Board of Directors of the permanent organizations. The plan was received with great enthusiasm. However, what the pioneers had feared from the beginning, the project soon fell prey to the political context in which both organizations operated: *‘every conversation about the OCCR became a poisoned discussion between the organizations’* (interview project team member, November 2014)*.* The developed practices and knowledge soon became topic of a debate of ownership: is the idea of a control center where national disruptions are managed a task for the ‘objective’ public infrastructure manager or for the largest commercial user of that infrastructure?

 On 10 October 2010 the OCCR project was finally finished and the OCCR was ‘transferred’ to the permanent organizations. It is organized as an association, so the issue of ownership has largely been solved. However, in practice it was deemed difficult to maintain the pioneering spirit and collaborative aims of the initial project team: ‘*In the beginning I really walked around like a lost soul, although it all may have started with a vision… But that’s the danger in every project, the transition from project to line organization’* (interview Facility Manager OCCR, January 2015).Moreover, since most of the plans were initially developed in the context of the specific project, some of the operational procedures and responsibilities in the permanent organizations had to be reorganized accordingly. The dissemination of knowledge and experiences from the project team to members of the permanent organizations was fraught with problems: ‘*There were a lot of complaints from the organizations, and they didn’t feel involved. They had other ideas which we then had to incorporate, so we felt like we could do everything all over again’* (interview project team member on the transition, October 2014).

Culturally speaking, not everyone in the organizations was ready or prepared sufficiently for the changes the project team wanted to realize. The intense inter-organizational collaboration that the OCCR had installed faced some struggles when put into practice: ‘*Some OCCR employees still thought: “I am from this* *organization, I am from that* *tribe. So each respective culture was firmly grounded in everyone’s genes’* (interview project team member, November 2014). It was difficult to maintain the initial enthusiasm due to practical constraints and since the project team had functioned in an isolated setting. A National Coordinator, operationally responsible, reflects on the first year of the OCCR: ‘*The enthusiasm slowly waned. We witnessed an enormous growing curve in the beginning. But we have reached a certain level, for a little while now, and nothing really happens anymore’* (interview National Coordinator OCCR, November 2014).

In sum, the data indicate there are multiple reasons for isolating a project – not in the least to simply be able to reach projects goals. Yet, isolation eventually has consequences for the dissemination of experiences and adoption of project outcomes once the project is finished and these have to be transferred to the permanent organization. Moreover, as our data suggest and as we will elaborate in the following case, project isolation emerges from interactions between both the project team as well as the permanent organizations. We have summarized our findings for this case in Table 1.

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| **Case 1: Operational Control Center Rail** |
| New knowledge development | Innovative ways of inter-organizational collaboration in a co-located coordination centre for better performance on the rail network |
| Initial learning strategy | Achieving a learning culture *in* the project and explore new and innovative ways of collaboration, to eventually intervene in the work processes of the permanent organization |
| Triggers for isolation | Creating a safe environment to actualize a controversial project Cultural differences in a politicized environment Conflicting project- and organizational goals |
| Isolation practices of project | Symbolic: staying under the radar and creating a sense of secrecyDiscursive: talking about ‘champions’ and a ‘pioneering spirit’; creating a ‘strong culture’ with ‘elites’Spatial: ‘Secret project office’ in the cellars of the head quarters |
| Isolating practices of permanent org | Lack of funding and support for the project teamPassively accepting the project and their ‘underground’ status to reach controversial goals |
| Dissemination of knowledge | Politicization of project blocked the dissemination of project outcomes Organizational members still act from their own paradigm Co-created isolated project knowledge could not simply be transferred to new ‘open’ environment of organizations New practices were insufficiently connected to daily operations and had to be changed accordingly; feeling of ‘starting over again’ |

*Table 1. Process of knowledge development during the OCCR project*

1. **Case 2: The Beating Heart city development project**

*5.1 New forms of knowledge on managing public private partnerships*

The Beating Heart is a construction project that started in 2010 to develop a large urban area in a Dutch city. The aim of the project was to develop a complete new neighborhood by integrating and connecting several urban areas, reorganizing the critical infrastructures, such as roads, light rail and electricity networks. Furthermore, new facilities such as a cinema, theater, and shopping centers were build. The aim of the project was to improve the quality of living in the neighborhood and to make it socio-economically more ‘attractive’ to live and work. This was not easy as the project started during the financial crisis that was hitting the field of construction and real estate development. Given the bad performance of large infrastructure and building projects, new forms of contractual arrangements and collaborative practices between public and private parties were sought for. A team member reflects:

*We were in the middle of the crisis and the standard contracts just didn’t work. People found them unreasonable, so we had to find other kinds of partnerships… You eventually conclude that you are not the principal contractor for the entire project so you can’t take full responsibility. But neither can the private parties. So you have to search for common ground, and that also gives some more connection* (interview project team member, September 2016).

The project was therefore initiated as a large-scale public-private partnership and tendered for the market between 2012 and 2013 in the form of a ‘competitive dialogue’, which is a kind of procurement process that allows project partners to negotiate and discuss the objects of a project more intensely (Hoezen et al., 2012). This should lead to shared responsibilities and value-driven decisions later in the project execution. In such an innovative tendering process the parameters of a project are usually set before the start of the tender, but how goals are reached is for example open for negotiation. For the municipality, the Beating Heart project was one of the first large and complex projects to be tendered in this way. They acknowledged that other forms of knowledge and competences were needed for this innovative collaborative partnership than they would use for standard procedures. As future projects would be managed in similar inter-organizational ways, the municipality sought to develop ways to manage this process intra-organizationally to become a ‘learning organization’ so that knowledge generated in projects would become available to the permanent organization.

*5.2 Triggers for isolation*

The main trigger to isolate the project from the permanent organization was the confidential nature of it, especially during the inherently political context of the tendering phase. Due to tender regulations, the sharing of information with people outside the project was prohibited in this phase: ‘*There was this shredder next to the door and when you would leave the building you had to shred every document’* (interview project manager, August 2016)*.* For many team members, the tender phase was characterized by the paradoxical nature of dealing with project demands versus the expectations and goals of their respective departments. Not uncommon for project members, they experienced conflicting loyalties and that a balance had to be found between the diversity within the larger project ecology, belonging to the project team while simultaneously belonging to one’s department. The diversity in the project revolved around the tension between autonomously exploring new ways of public-private collaboration in the tender phase and doing so according to the already existing knowledge and organizational processes. Due to the confidential phase of the tender and the project was a first of its kind, it was difficult for the project members to draw on earlier experiences and to share and develop ideas with their (departmental) colleagues. A project manager reflects in an interview:

*We faced a lot of challenges. Will this work? What are the consequences? If we do this what happens further on in the process? So we tested and explored a lot. It was a really dense file, which took us a lot of time and energy to fully grasp* (interview project manager, September 2016).

The second trigger was the employment of external experts from private firms. They were hired to bring in ‘external knowledge’ on innovative tendering procedures with specific experience in public private partnerships to help the municipality to engage in new and unknown ways of collaboration. One of the motivations to bring external experts or consultants into the project was that it was not perceived valuable to develop this specific knowledge internally at that point of time. The idea was that this external knowledge could relatively easily become part of the project team by embedding these experts within the project. Although bringing in external experts did help in disseminating their specific expertise within the project, it also diluted existing connections between the project and the permanent organization. Furthermore, it was not always seen as realistic that project members would actually learn from the external experts due to time pressures.

Like the OCCR case, how the Beating Heart project increasingly moved from relative autonomy into isolation should also be understood as happening from interactions between both the temporary project and the permanent organization. Time pressures, for instance, were often seen as a more general phenomenon that constrained the project team members to effectively pursue project goals:

*We have organized our system by means of content. We have a number of disciplines where some people in departments decide how and what we have to do. So you may end up with somebody in a project who has no mandate from his department. That person has to go back for permissions every time. So, when you think you have finally made three steps forward, someone tells you it can’t be done.’* (interview project team member, September 2016).

The previous quote alludes to an interesting observation. Project team members experienced a lack of mandate when having to make certain decisions, suggesting that in these instances team members felt insufficient autonomy to set and pursue project goals. From the organizational perspective this could be interpreted as ways to stay connected to the project and as a strategy to facilitate the conditions to learn from what happens within the team. Yet, within the project this was interpreted as impeding learning. Team members experienced a less than desirable level of autonomy as they had to manage conflicting loyalties, cope with working under (time) pressure and aligning decisions with organizational processes. We could thus wonder whether, in this case, isolation may also be a more ‘extreme’ strategy of project members to defend their autonomy when faced with greater organizational involvement impeding reaching project goals in a timely fashion.

*5.3 Practices of isolation*

The symbolical practices of isolation were observed in the Beating Heart case mainly in reference to the strong identification of project team members with the project. Project members perceived the tender process to be ‘exciting’ with ‘lots of discussions’ in a dedicated team. This was further reinforced by the fact that the project team was associated to a larger national program and platform that included multiple partners who were working on the same urban development project. This national program was also symbolically seen as separate from the municipality, for instance by having its own website and a specific ‘corporate identity’. Many interviewees experienced working within such a dedicated and autonomous team as very positive as it made the team more decisive according to them. On the contrary, related to the positive self-image of the project team was the negative perception of the municipality as a slow, bureaucratic organization: *‘even if it* [being innovative and creative] *is stimulated, it will immediately fall prey to a number of rules, or budgets or abstractions that take the soul out of our work’* (interview project team member, September 2016)*.* Thus, by drawing these symbolic boundaries, the project team could differentiate between the project and the municipality, metaphorically ‘cutting the ties’, at least temporarily, with the permanent organization. Furthermore, project managers mainly used their informal networks to attract project members, thereby arguably reinforcing the project spirit as people were sought with perhaps different functional background but similar mindsets. These symbolic practices led to a greater divide between the ‘insiders’ and ‘outsiders’ of the project.

Discursive practices were found in the positive labeling of distance. Interviewees regularly referred to the role of ‘distance’ when talking about the success of the project, and they stressed that the successful outcome of the tender was partially resulting from the fact that the project was isolated from the daily, bureaucratic and political context of the municipality: ‘*The distance works well, especially internally. This was important during the tender, as this was an exciting process with lots of discussions. But as a team we also felt connected’* (interview project manager, September 2016)*.* The discourse around the Beating Heart project often included terms emphasizing its ‘uniqueness’ and ‘complexity’, and that its project members were considered to be *‘the very best people of the municipality’* and that the team included several *‘advisors that were a heavy-weight in the market’* (interview project manager, September 2016). As already discussed, including external experts was seen as a trigger that contributed to an isolation strategy. More fundamentally, still, in this case the external experts were also used as a discursive practice to draw distinctions between project and municipality: framing team members as the very best or as external experts can be seen as ‘the burden of proof’ to claim greater autonomy.

Interviewees emphasized that for the complex context of the project and the search for new ways of collaboration with private parties, creative ‘out of the box’ thinking was needed. Moreover, as they often had to find exceptions to existing rules and procedures, project members allowed themselves to do things differently. Thus, discursively labeling the distance between project and organizations as something positive, the project team members carved out a space where it was easier to act according to their own discretion, finding exceptions to existing rules and procedures, and creating more flexibility to achieve their project goals.

Some spatial practices emerged that created clear boundaries between the project and the municipality. For instance, the project occupied a new location away from the permanent organization in which only project employees were allowed access: *‘We literally locked ourselves up in a building with shielded windows. Only project members were allowed inside, and we really created this team-spirit. This commitment was very important’* (interview project manager, September 2016)*.* Moreover, and as discussed earlier, the nature of the tendering phase required the project to operate in isolation on several aspects. Besides being situated in another physical space, referred to by many as ‘the closed bastion’, the boundaries between the project and the rest of the organization were also physically protected by, for instance, the document shredder or the shielded windows. These artefacts were both ways to adhere to regulations that did not allow the free sharing of information while simultaneously reinforcing isolation in a physical sense: the almost ritualistic shredding of documents defined what belonged to the project team with its special project space and what belonged to the rest of the organization.

In sum, from the rationale of the project team this spatial intervention in combination with the symbolic and discursive practices of isolation stimulated a dynamic environment through which team members could realize specific project goals more freely. These practices together created the conditions for the project team to somehow circumvent the political and bureaucratic structures of the municipality, for instance to prevent having to create support for every decision and, instead, be able to explore more creative solutions necessary to handle complex situations. Moreover, the different practices of both the project team and the organization reinforced each other and, thus, collectively contributed to a greater sense of project isolation. The individual departments, for instance, responsible for projects on a political level, introduced more control mechanism to try and make the practices within the project more transparent. Yet, for project managers, often understood as the link between the project and individual departments, as well as team members it was deemed important to continue operating autonomously, to navigate the complexity and diversity of the project as well as to prevent being hampered by existing bureaucratic procedures. As a reaction, there emerged a certain kind of ‘jealousy’ from members of the permanent organization. Team members were increasingly seen as ‘a bunch of freewheelers’ who were doing a lot of things that, in the perspective of the organizational members, was only marginally related to organizational goals. This further triggered the isolation of the Beating Heart project. Isolation appears to be as much a process resulting from intentions of the project as well as intentions of the organization.

*5.4 Dissemination of experiences and knowledge on new forms of public private partnerships*

One of the goals of the municipality was to engage in new forms of collaboration by generating and exploring new knowledge and competencies that resulted from innovative ways of shaping the tendering phase as a ‘competitive dialogue’. Simultaneously, it was important to secure this knowledge and competencies within the organization, so it would become available for future projects. Paradoxically, however, because the project team operated in isolation, learning within the project was stimulated while learning between project and the permanent organization was hampered. Within the project, team members collectively sought for and found creative ways to solve problems by themselves, and knowledge between different disciplines was shared relatively easy, for instance during informally organized occasions. At the same time, however, and due to this strong level of autonomy, this knowledge was often not ‘accepted’ by the permanent organization as organizational members found it hard to see the ‘fit’ of the specific project knowledge with their own work, or they simply did not understand enough of the context of the project to value that knowledge. This can partially be explained by means of which ‘kind’ of knowledge is deemed valuable for which community: project team members valued the knowledge that was explored in relation to the process of the tendering phases, whereas departments seemed to see more value in knowledge as a ready-made product with a focus on content or best practices (cf. Newell et al., 2006). Remarkable, for example, was that many of the Beating Heart project team members also formed the core of a subsequent and similar urban development project. Yet, these team members were not unanimously positive about this approach where it is assumed that knowledge and best practices can be transferred between projects relatively easily. The local and specific context of the Beating Heart project made it difficult to apply these practices one-on-one in the new project, with its own local and specific context.

In this case we see that the isolation of projects can lead to the fact that knowledge and lessons learned stay limited to individual project members and does not easily spread through the permanent organization, even if the permanent organization wants to pursue a strategy to become a ‘learning organization’. Although these individual team members are simultaneously part of the permanent organization we can expect at least some ‘spillover’ effect, especially in terms of team members’ implicit knowledge. Yet, this may be insufficient, as learning within the project does not automatically lead to organizational learning. This partially results from differences in learning dynamics, where learning in projects is often more short-term and based on specific practical project demands, whereas organizational learning involves a more thorough and long-term process of embedding this knowledge within the organization (e.g. Prencipe and Tell, 2001).

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|  **Case 2: The Beating Heart city development project** |
| New knowledge development | New forms of knowledge and competences on managing public-private partnerships and innovative ways of tendering |
| Learning strategy | Permanent organization wants to become a learning organization; embed lessons learned on tendering phase within organizational context  |
| Triggers for isolation | Confidential nature of the tendering phase; navigating tensions in relation to processes and goals part of the permanent organization Keeping project separate from daily political turbulence and slow bureaucratic proceduresEmployment of external experts from private firms  |
| Isolation practices of project | Symbolic: drawing on the confidential aspects of the tendering phase to create a ‘strong project culture’ with a ‘specific identity’; reinforced by a separate website and ‘corporate style’Discursive: talking about ‘insiders’ and ‘outsiders’ emphasizing the ‘uniqueness’ of the project requiring ‘the best people of the municipality’; attributing a positive image of ‘distance’Spatial: locating the project team in a ‘closed bastion’, including artefacts (shredder, shielded windows) that contribute to a sense of secrecy |
| Isolating practices of permanent org | Reinforce the isolation of the project by casting team members as ‘a bunch of freewheelers’, being ‘jealous’ about the autonomy of the project, not accepting or valuing knowledge generated within the project team |
| Dissemination of knowledge | The informal sharing of knowledge *within* the project while dissemination *between* project and organization was hard as the organization ‘refused’ the lessons learnt as being valuableThe problem of treating knowledge as a ‘product’ that can then be applied to other project context: project created knowledge on the tendering *process* while the permanent organization valued knowledge *products*  |

*Table 2. Process of knowledge development during the Beating Heart project*

1. **Discussion and conclusions**

In this study we explored the effects of project autonomy on the dynamic process of project-based learning in two explorative projects. The findings show that both projects aimed to explore new collaborative practices (in a co-located coordination center in the OCCR case and in a new tendering process in the Beating Heart case) with the goal to translate new knowledge and competencies to the permanent organizations. Apparently, in both cases triggers of isolation emphasized the boundaries between the project and permanent organization. These triggers spanned internal as well as external motivations. In the OCCR case we saw how the controversial idea of a co-located control center was, at least indirectly so, stimulated by the fact that the railway organizations found themselves in a crisis of legitimacy; similarly, in the Beating Heart case the intentions to seek for innovative ways of collaboration was a consequence of the low trust in urban development projects. Although the speed of isolation was different in both cases, the data suggest that complex and innovative projects follow similar mechanisms that contribute to project isolation. As other studies have also illustrated, strong autonomy or isolation can, especially in the development of innovative ideas, be very productive in reaching project goals and consequently contribute to organizational performance (Criscuolo et al., 2013; Kidder, 1981).

 The dynamic nature of project-based learning was observed in the process of project isolation, in which we distinguished three different, but interrelated practices. First, projects draw boundaries between the project and organization through symbolic practices: by creating a sense of secrecy and by staying underneath the radar or out of sight, the project can develop its innovative ideas better as it becomes less quickly affected by organizational and political processes that are perceived as a hurdle to reach project goals. Second, discursive practices contribute to constructing the meaning of the project as fundamentally distinct from the organization (e.g. emphasizing its uniqueness), which, in turn, establishes a strong project culture with an identity distinct from those ‘outside’ the project. Third, spatial practices, arguably a more ‘extreme’ way of isolation, involve the physical removal or putting at distance of the project from the organization. These three practices mutually reinforce each other. Isolation, for instance, leads to further identification of project members which, in turn, contributes to a greater perceived isolation (e.g. organizational actors who become jealous and, as such, reinforce the project’s isolations). By unraveling these practices of isolation and their interrelations, we have been able to address and build upon the recent critique that the distinctions between temporary projects and permanent organizations are not ready-made categories but should be seen as emerging from a complex, dynamic and ongoing process in which distinctions are drawn in everyday negotiations and practices (Bechky, 2006; van Marrewijk et al., 2016).

Our findings suggest that project isolation in the case of explorative, innovative or controversial projects may be a widespread phenomenon that, moreover, can actually contribute to eventually realizing organizational goals. Based on our cases, we claim that an important contribution of this paper relates to how the phenomenon of project isolation should be understood, namely as a delicate process in relation to project autonomy and project-based learning. Rather than casting it as something that is either positive or negative, we have shown that project isolation is a joint accomplishment of both the project and the organization: isolation involves a dynamic and ongoing process where it is decided to move beyond a regular sense of autonomy and temporarily ‘cut the ties’ between project and organization to reach project goals more effectively. Reaching these project goals – at least ideally – simultaneously contributes to the organization’s sense of legitimacy and performance.

We should, however, also be cautious to glorify these more extreme expressions of project autonomy. As we have seen, it may be a necessary development for truly innovative projects in which a strong identification is an important aspect of reaching project goals. But from the perspective of the permanent organization, isolated projects are like a double-edged sword: they positively influence the outcome of the project but hinder the solidification of these positive results in becoming part of the broader organization. In this paper, we have specifically analyzed this in the context of project-based learning. As we have illustrated, the effects of project isolation on learning *within* projects may be beneficial (e.g. involving outside expertise, disseminating knowledge informally, developing innovative ideas). However, this strong internal focus may negatively affect learning *between* different projects or *between* the project and permanent organization. Isolation may be a necessary step for innovative projects, but once the project terminates there is no infrastructure immediately ready to disseminate the knowledge with the organization and to make it structurally available for others. Innovative knowledge then runs the risk of staying implicit and remaining attached to individual project members only. Moreover, this knowledge is very contextual. Deriving generic knowledge from this local project knowledge is cumbersome. What constitutes knowledge in projects, in this respect, can become a contestable question (e.g. Newell et al., 2006) tied up with specific communities: the permanent organization may disqualify specific knowledge or lessons learnt because they do not recognize these as being valuable for the broader organization, and this is reinforced by isolation, as isolation strengthens the ‘not invented here’ feeling. In other words, knowledge is not recognized, because it is produced within a specific community and situated within the practices of this community (Brown and Duguid, 2001). In both our cases, the consequence of isolation on project-based learning remains remarkably similar: knowledge and project practices stay within the project and individual team members, and hardly enter the organization.

Our paper contributes to the project management literature focuses on the problematic role of project-based learning (Davies and Brady, 2016; Grabher, 2004; Prencipe and Tell, 2001; Scarbrough et al., 2004). We corroborate earlier findings that learning in project environments is difficult due to, among other themes, the different temporal trajectories of the temporary and permanent organization. Our findings, however, also build on this body of literature by offering project autonomy, and especially project isolation, as a way to rethink these different temporal trajectories. Project autonomy urges us to see the difference between temporary and permanence not as a ready-made categorical difference. It is practiced and negotiated in situ and on a daily basis (cf. van Marrewijk et al., 2016), a process in which projects as much as organizations themselves are enrolled. It shows the double-edged effects of project autonomy in innovative projects on project-based learning. If cutting the ties is indeed a necessary step for projects to reach project goals, we must also ponder how the ties can be knotted back together after the termination of a project. Or, perhaps better put, we need to understand how organizations can at once stimulate projects to operate autonomously and pursue innovate ideas, while simultaneously ensure that projects stay connected to the broader organization so they do not become isolated in terms of learning.

Overall, we see that project-based learning is problematic. Without a dedicated learning strategy and an open organizational learning culture, the character of the organization can hinder learning processes. This is partly due to the dominance of projects on the capacities of many organizations, but is also caused by the great dependence of knowledge and expertise of individuals. Project teams are often compiled with highly skilled professionals – employees and or external advisors – who are driven by solving problems and take pride by being part of a team rather than an organization. Project autonomy strengthens this team-based process, which benefits the project and therefore the organization in relation to direct performances, but it also weakens the organization in terms of knowledge development.

Further research could consider the phenomenon of project isolation in different circumstances. For example, is it indeed the case that project isolation is related to the need to innovate or to restore organizational legitimacy? Perhaps there are cases where much less complex or less controversial projects also decided to isolate from the organization, and it would be interesting to see if this happened according to similar dynamics as sketched in this paper or that there might be other reasons that motivated this move. Moreover, we focused in this paper on two projects that were generally understood as ‘successful’: the OCCR project team realized a co-located control center and the Beating Heart project team finished the tendering phase on time. We expect that project isolation, in the context of projects that ‘failed’ (i.e. projects that were never finished or that did not finish in time or without exceeding the budget), may have a rather different meaning and more negative connotation.

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