



Governance-as-practice for major public infrastructure projects: A case of multilevel project governing

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Received 29 September 2017; received in revised form 15 February 2018; accepted 27 February 2018

Available online 27 April 2018

Abstract

The aim of this article is to advance a conceptualization for governance-as-practice, based on current developing streams of processual and practice studies — strategy-as-practice and project-as-practice. Although project governance has gained recognition as an important object of inquiry, what is actually done by different actors having to manage those projects has been studied much less. This article presents a qualitative research based on a multiple-case study of four major public infrastructure projects in Quebec, Canada. Considering the role of material artefacts in this process, along with organizational change, the results show how projects performative practices were enacted against the ostensive ones, uncovering a process of multilevel project governing. The main contributions are: 1) to unfold the knowledge articulation process of an institutional project governance framework, as it is translated into projects, and 2) to understand and document governmental practices in order to reflect on them and gain deeper insights about project governance. © 2018 Elsevier Ltd. APM and IPMA. All rights reserved.

Keywords: project governance; public infrastructure projects; governance-as-practice; multilevel project governing; multiple-case study

1. Introduction

As a subfield of project management, project governance has been gaining increased attention over the last decades (Ahola et al., 2014). In the editorial from *International Journal of Project Management's* special issue on ‘Governing projects under complexity: theory and practice in project management’, Pitsis et al. (2014) argue that the subfield of project governance has the potential to become a mainstream domain of research, theory and practice. While project governance is still difficult to conceptualize, there is a growing corpus of research on this question, both in project management literature and in general management literature (Biesenthal and Wilden, 2014). Biesenthal and Wilden (2014) have systematically reviewed existing research on project governance, and they found that the most widely used theories are either economic theories (agency theory, transaction costs, resource dependency theory) or behavioral theories (stakeholder theory and stewardship

theory). However, there have been few attempts to understand project governance from a practice perspective (e.g. Bjørkeng et al., 2009; Pitsis et al., 2014). Mobilizing processual and practice theoretical perspectives to complement current theories of project governance is important to tackle, in order to consider the dynamics of this process and the interplay between institutional policies and projects – the way they influence and shape one another. It is hoped that the concept of “governance-as-practice” proposed in this article will contribute to the field of project management, but more largely to organizational theory, in line with the argumentation of Pitsis et al. (2014).

Over the past decades, the practice turn in social sciences has been gaining influence and recognition (Schatzki et al., 2001). The practice perspective, composed of many streams and being far from a ‘unified theory’, has been contributing significantly to a renewed conception of the organization by emphasizing a processual view of organizational matters (Nicolini, 2012). This paper builds on a research project seeking to understand the governance of major public infrastructure projects from a practice perspective. A multiple

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case study of four major public infrastructure projects in Quebec, Canada, was conducted in order to unveil how a governance framework is translated into practice, from its institutional form to its enactment by project actors. As several countries have been adopting governance frameworks in the past decade (Samset et al., 2016), it is somewhat inferred that by adopting one, people will comply with it, thus improving projects performance by increased respect of time, costs and scope. Yet, even if a governance framework is institutionalized, this does not mean that people will necessarily act accordingly to the original intention. Governance is something that people do rather than something organizations own (Whittington, 2006). Thus, studying project governance from a practice perspective is essential to complement our current knowledge. This research gap is quite important to tackle, as the level of investments put into major projects is quite high, and the overall performance of these projects is still deficient (Flyvbjerg, 2014). In line with the call for papers from *International Journal of Project Management's* special issue on 'Projects, Organizations and Institutions', this paper seeks to address the embeddedness of projects into wider organizational and institutional contexts, and the interfaces between projects and organizations, and between projects and institutions. The research conducted aimed at unveiling how governance was operationalized (translated) by project actors working in different settings, and how these different levels (projects, organizations and institutions) interplayed. Thus, the specific research question is the following: *How is project governance made into project governing?* The following sections present the theoretical background, the methodological approach, the findings, a discussion of those along with main contributions.

2. Theoretical background

This section briefly presents the practice perspective, along with some specific streams that are mobilized in this study: strategy-as-practice and project-as-practice.

2.1. The practice perspective

Although there is no such thing as a unified theory of practice, Gherardi (2012, p.2) presents that "practices constitute a mode of ordering the flow of organizational relations". She further elaborates:

Practice [...] may be assumed as an empirical unit of analysis in order to study how, within a practice, people reach a practical agreement starting from heterogenous understandings and modes of cooperation with the material world (*ibid*, p.202).

In this theoretical perspective, social practices are given primacy over individual agency and intention (Golsorkhi et al., 2010, p.7). Chia (2013, p.47) contrasts two ontologies: the ontology of *being* and the ontology of *becoming*, the latter being closely associated with the practice perspective. An ontology of becoming assumes change so that stability has to

be explained, and focuses on processes, practices and material relations rather than on individuals and organizations (*ibid.*). An ontology of becoming is also intimately associated with social constructionism (*ibid.*). As Chia (2013, p.49) put it:

Such a process philosophical viewpoint promotes a decentred and dispersive view of 'the individual' and 'the organization' as a fluxing concatenation of event-clusters and patterned relationships that resists clear identity, simple location and static representation.

Thus, working practices are sociomaterial, temporal, collectively enacted, with distributed agency (Gherardi, 2012). Building on the theory of routines as practices (Feldman and Pentland, 2003), in this article the terms 'ostensive practice' and 'performative practice' are used to distinguish between practices as 'what people engage with' and as 'what people do' (Johnson et al., 2007). In line with Gherardi's (2012) methodological insights, we have focused on the translation process of an institutionalized artefact into practice, from ostensive practices to performative ones (reference taken out for review). For each project practice related to project governing, its level of enactment was evaluated, which correlates with a collective appropriation by project actors, a re-embedding in a localized time and space (Leonardi and Barley, 2010).

According to Langley (1999), process data often involve multiple levels and units of analysis with blurred boundaries and varying temporal embeddedness. Johnson et al. (2007) have argued for developing a research agenda which covers not only actors' practices from a micro perspective, but also organizational actions and institutional field practices (respectively *meso* and *macro* perspectives). While Hällgren and Söderholm (2011) recognize that much practice research focuses on the micro level of practices, it is important to consider the multilevel nature of practices. Here is how Gherardi (2012, p.173) emphasized this point: "Considering the institutional environment and the institutional forces surrounding a texture of practices enables us to better link the micro-analysis of practicing with the macro-analysis of the circuits of practice reproduction and the power effects generated by practicing." Next, two streams of practice theories are presented. First, strategy-as-practice, and second, projects-as-practice.

2.2. Strategy-as-practice

One of the most influential illustrations of practice-based studies conducted in the general field of management is strategy-as-practice, which re-institutes the significance of what managers are actually doing (Johnson et al., 2007). Emerging as early as in the end of the 1990s, strategy-as-practice has since then established itself as an important stream involving many researchers from social sciences (*ibid*, Golsorkhi et al., 2010). As argued by Whittington (2006), traditionally, strategy was conceived and studied as something organizations *had*, rather than something people *do*. Not only are strategy-as-practice researchers concerned with what people engaged in strategizing actually do, but they seek to address the interfaces between what is going on from a micro-perspective to wider organizational and institutional phenomena (Johnson et al.,

2007). This focus on practices bridges notions of agency and structure while considering the role of material artefacts in enabling and constraining them (Golsorkhi et al., 2010). As such, strategy-as-practice researchers have proposed an extended research agenda seeking to study more deeply the multilevel nature of practices through investigating relationships between activities, organizations, and institutions, both from a content and a process perspective (Johnson et al., 2007). This theoretical stream is quite closely connected to institutional work, which emerged out of a hybridation of institutional theories with the practice perspective (Lawrence et al., 2011; Nicolini, 2012). As the practice turn is becoming increasingly recognised as generating new theoretical insights in social sciences, strategy-as-practice has inspired other emerging streams of organizational studies: institutional work, leadership-as-practice, and projects-as-practice, among others (Vaara and Whittington, 2012). The latter is briefly presented in the next section.

2.3. Projects-as-practice

In the field of project management, some scholars have recently adopted the practice turn and have introduced ‘project-as-practice’ (Bjørkeng et al., 2009; Blomquist et al., 2010; Hällgren and Söderholm, 2011). Although still underdeveloped, those approaches are rapidly expanding (Florice et al., 2014). Cicmil and Hodgson (2006) questioned the normative and rational underpinnings of project management and invited researchers to use other, more critical approaches, including the practice perspective. Similarly, a UK-based research network – Rethinking Project Management – “highlighted the growing critiques of project management theory and the need for new research in relation to the developing practice” (Winter et al., 2006, p.638).

According to Biesenthal and Wilden (2014), project governance is a construct which's nature remains unclear, due to multiple definitions found in the literature. Yet, they consider that key project governance definitions share the view that “project governance is primarily concerned with aligning project objectives with an overarching organizational strategy, and that it is necessary to create stakeholder benefits across different organizational levels” (Biesenthal and Wilden, 2014, p.1294). Consequently, conceptualizations of project governance should reflect this multilevel nature, from the project level, the PMO level, and the organizational level (*ibid.*). However, the institutional level should be added to that in order to encompass the others (Miller and Lessard, 2000; Morris and Gerdali, 2011). This resonates with Sydow et al.'s (2004, p.1477) call to “account (often simultaneously) for the issues of embeddedness and knowledge/learning in a multi-level and processual perspective”. In line with an epistemology of practice as dwelling, Chia (2013, p.48) poses that “the study of the process of ‘organizing’ therefore replaces the study of ‘organizations’.” Building on this, some researchers are now investigating the field of project governance from a practice perspective, in the form of ‘project governing’ (Foss et al., 2010; Pitsis et al., 2014; Sanderson, 2012). As project governance as a concept might extend beyond project management (Biesenthal and Wilden, 2014), this paper develops the concept of ‘governance-as-practice’ which,

applied to major public infrastructure projects, refers to multilevel project governing. In order to do so, the next section reviews the methodological approach taken.

3. Methodological approach

The research strategy is qualitative, heuristic, and based on case studies which have been purposefully sampled, according to maximum variation sampling (Patton, 2002). The overall aim of the explorative study was to address the process of translation of a governance framework for public infrastructure projects into practice. Following an in-depth case analysis of one project (reference taken out for review), a multi-case study has been undertaken in order to unveil how a specific governance framework is translated in various situations, what common patterns emerge and what are the significant distinctions. The number of cases has been decided between the researchers and fieldwork representatives. At first, a single-case, in-depth study was proposed by the researchers, but it was convincingly argued by fieldwork representatives that studying three or four cases applied to different contexts could generate more robust findings that could prove transferable to other projects. The multiple case study also offers the advantage of triangulation, to test concepts that are ultimately be more reliable than the single case (Eisenhardt, 1989).

The general context for all cases is the socio-political context of Quebec (Canada). Four cases have been selected, each one being a major public infrastructure project - defined as over \$50 million (CAD) - currently in the front-end phase (Williams and Samset, 2010). Two projects are in the initiating phase, one initiated by a museum, under the Ministry of Culture and Communication, and one initiated by a courthouse, under the Ministry of Justice. The two other projects are in the planning phase, and are both hospital extensions, both under the Ministry of Health and Social Services. Thus, the unit of analysis is the project, which has to conform to the Quebec governance framework (QGF). This institutional framework, adopted in 2008, was revised in 2010, and again in 2014. The *Secrétariat du Conseil du trésor* (SCT, Quebec Treasury Board), is responsible for the updates of this framework, which has been formalized in 2014 as a legal document entitled: ‘*Directive sur la gestion des projets majeurs d'infrastructure publique*’ (Secrétariat du Conseil du trésor, 2014). The QGF presents a stage-gate model, a project lifecycle of five phases, of which the first three ones have to go through a decision-making point by the Council of Ministers.¹ The governmental project manager is *Société québécoise des infrastructures* (SQI).² This organization was created in November 2013, and

¹ Of those three phases, only the second (initiating) and the third (planning) are covered by this research, as the front-end phase has not been investigated. However, this crucial phase is the heart of the governance framework, as it allows to develop a thorough understanding of the societal need for a public infrastructure project in order to be approved and undertaken to the next step.

² SQI may also support the project manager in some instances, in those cases, its role includes performing quality assurance of the main project deliverables. Also, projects under the Ministry of Transport (*Ministère des Transports, de la Mobilité durable et de l'Électrification des transports*) are not within the mandate of SQI.

resulted in the fusion of two previous organizations. SQI is responsible for the production of projects' documentation, yet, a separate internal unit is also in charge of validating projects documents for quality assurance. The main deliverable to be developed in the initiating phase for approval by the Council of Ministers is an opportunity case (DO, *Dossier d'opportunité*), and a business case (DA, *Dossier d'affaires*) in the planning phase. Clients of a project are, most of the time, threefold: the Council of Ministers (the paying client), the Ministry sponsoring the project and the operator of the infrastructure (the user).

The strategy for data collection included a pilot project in 2014 to test the conceptual framework and the initial analysis of public data. This initial conceptual framework was inductive, as the researchers involved had some previous and intuitive knowledge of the overall phenomenon. The initial conceptual framework included some basic elements such as a governance framework (an artefact), a process (the translation made by the actors) and an outcome (to be defined), but it was subsequently revised through iterations and improved to reflect accurately the research findings (see Fig. 1). Field research has been conducted from September 2015 to June 2016. Data collection is based on a set of approaches: non-participant observation in project meetings, semi-structured interviews and a documentation analysis. Interviews have been carried out with different project actors, following the snowball strategy, starting with project managers and then with the main team members involved in the projects, until saturation (Patton, 2002; Yin, 2009). Additionally, other interviews have been conducted specifically on the QGF, regarding its objectives, and the perceived performance of it to improve overall projects success. Table 1 presents a summary of collected data.

Data collected were transcribed and coded using qualitative data analysis software NVivo. The main analysis strategy consisted of using the abductive approach, starting with a flexible frame and revising it according to insights generated by empirical data (Alvesson and Sköldbberg, 2009). Starting from the conceptual framework of the doctoral thesis, we initially coded the interviews, and revised the coding as well as the framework in an iterative cycle, in order to develop a heuristic theory (Van de Ven, 2007). From a focus coding on main themes addressed – the practices in our study (called first order concepts in Gioia et al., 2013), we move to an axial coding – the three levels of requirement being institutional, organizational and project level (second order themes in Gioia et al., 2013). In order to do so, one of the four projects (Project 1³) was used to develop an initial, in-depth analysis⁴ (reference

³ This project was selected as it presented the most complete set of practices, and it was fairly easy to represent them on a timeline. Thus, how practices are numbered in the results section (P1, P2, ...) is approximately the chronological order observed with reference to this practice in Project 1. For the other projects, establishing a temporal order proved more confused, as several practices were recurring/ongoing. No comparisons are offered in the regard of temporality in the inter-case analysis, though it would be interesting to explore this avenue further.

⁴ The preliminary results of this article were presented to a SQI representative and to a research conference. Following those initial validations, some iterations were made and contributed to enrich the results and discussion.

taken out for review). Other analysis procedures included temporal bracketing and a systematic analysis of various governmental documents (Langley, 1999). This case-study analysis allowed unfolding the process of translation of the QGF, from the institutional framework into the project, as various actors made sense of the ostensive practice (through appropriation) and enacted it as a performative practice. From this detailed intra-case analysis, a set of twelve practices have been observed, which we classified in three different categories: (1) 'structuring' practices — required in the governance framework at the institutional level; (2) 'normalizing' practices — required at the organizational level; and (3) 'facilitating' practices — performed at the project level.

Following this in-depth case study, the three other projects were each analyzed separately. For each project, a timeline was established, along with a summary of the main episodes and practices which had occurred. An inter-case study followed in order to validate the main patterns encountered about the multilevel nature of this process of translation (Eisenhardt, 1989). The analysis was done iteratively, bringing partial and preliminary results which were presented and generated subsequent analysis. An intermediary meta-matrix was established (Miles and Huberman, 1994), which listed all practices along with the way they were translated (in the initiating phase and in the planning phase): from the artefact (institutional or organizational), to the ostensive practice, and then to the performative practice.⁵ Because of words constraints, we had to synthesize data further, thus we elaborated a synoptic matrix which is presented below (Table 5). In order to illustrate clearly how we have evaluated the level of enactment of those practices into projects, Table 2 below presents one example for the practice: P5-Participating in project coordination meetings.

We unfortunately lose some thickness in the data collected, yet, making sense of it was facilitated. The conceptualization of 'governance-as-practice', as illustrated in Fig. 1, was also revised at that point. The projects timeline was put aside as their analysis were inconclusive and brought no additional value to the reader; the main points were instead incorporated in Table 3.

According to George and Bennett (2005), a research which is designed to have both within-case analysis and cross-case comparison is the strongest means to derive inference from case studies. Chosen data analysis strategies (the abductive approach, temporal bracketing and systematic analysis) are high in accuracy and somewhat limited in simplicity and generality, even though the transferability could be important (Langley, 1999). This approach to theory development using discovery, flexibility and reflexivity has been encouraged by several influential researchers (Alvesson and Kärreman, 2007;

⁵ This meta-matrix was again submitted to a SQI representative for validation, along with the integrated timeline of the four projects, the projects summaries and the initial findings. A presentation to project management academics (professors and students) was also held at that time in order to present preliminary results and the conceptual framework.

Table 1
Data collected for the research.

	Number of interviews	Number of meetings observed/Number of hours	People interviewed
QGF	15	–	Governance framework experts: representatives from Secrétariat du conseil du trésor (SCT), Société québécoise des infrastructures (SQI), and other external experts (academics and consultants).
Project 1	7	8/29 h	SQI project manager, the responsible of quality assurance at SQI, the hospital/Health Ministry project managers, the SCT analyst, an architect and the consultant who wrote the business case.
Project 2	7	7/31,5 h	SQI project managers (2) and manager, the hospital/Health Ministry project managers, the SCT analyst, an architect.
Project 3	9	5/15,5 h	SQI project manager, the strategic advisor at SQI, the Ministry of Justice project manager and business analyst, the Ministry of Public Security/Director of Criminal and Penal Prosecutions project managers, the SCT analyst.
Project 4	6	1/1 h	SQI project managers (2), the responsible of quality assurance at SQI, the museum/Ministry of Culture project managers, the SCT analyst.
Total	44	21/77 h	

Klag and Langley, 2013; Locke, 2011). Having explained the methodological approach to this study, the results are presented in the next section.

4. Main findings

As it was explained in the section above, the findings result from an inter-case study of four projects. First, the main characteristics and key episodes of the projects are presented, followed by the ostensive practices. Then, the performative practices as enacted in the projects are synthesized and discussed.

4.1. The projects

The four projects constituting the four cases, all based in Quebec (Canada), are summarized here. The objective of Project 1 is to expand three specific medical services into a new constructed extension of an existing hospital. Project 2 aims to replace temporary structures in a hospital that were set up to treat patients with kidney failure into a permanent installation for hemodialysis. The objective of Project 3 is to renovate and expand a decaying law court in a small municipality in Quebec. Project 4 aims to renovate a museum located in a very busy location of a large city in Quebec. All are defined as major public infrastructure projects: Project 1 total budgeted costs are about \$150 million (CAD), and the three other projects are smaller in scope - approximately \$50 million (CAD) each. Table 3 below lists the main characteristics and key episodes of the four cases.

During the time of the fieldwork, all four projects have lost their project manager for various reasons (one being the long duration of those projects); yet, not all projects seem to have suffered from that, as transitions and replacements were carefully managed by SQI. While Project 1 delivered the business case in time, the three other projects had some delays to deliver - from about four to nine months. The main issues of those projects as raised by respondents, along with impacts on their governance is discussed in Section 5.1 below. Next are discussed the ostensive practices related to those four projects.

4.2. Ostensive practices

The results of the multiple case analysis show a confirmation of patterns observed from a detailed, in-depth analysis of Project 1 which was done previously⁶ (taken out for review). The multilevel nature of the practices is present for all cases, as they all have to conform to the QGF. Thus, for projects in the initiating and in the planning phases, three categories of practices apply: (1) ‘structuring’ practices — required in the governance framework at the institutional level; (2) ‘normalizing’ practices — required at the organizational level; and (3) ‘facilitating’ (or enabling) practices — performed at the project level. Table 4 presents, grouped in those categories, the ostensive practices at the initiating and planning phases. This table was developed according to various artefacts, government documents, rules, templates, etc., and the common understanding of ‘what people engage with’ (Johnson et al., 2007).

Overall, the practices required at the initiating and planning phases are similar; most of the time the planning phase will develop further the practice started at the initiating phase. The number of the practices (P1, P2, ...) is approximately the chronological order observed with reference to this practice in Project 1.⁷ When a practice was in essence the same, yet needed a separate title for initiating and planning, we have detailed accordingly (P3.1/P3.2, P10.1/P10.2 and P11.1/P11.2). Then, we categorized the practices in three categories according to the level at which they were required, as stated by material artefacts (the governance framework, or *Directive*, at the institutional level, and the organizational rules and frameworks at the organizational level). Overall, there is only one practice that is required at a different level at the initiating phase: P11.1-Elaborating the Project Management Plan (PMP). This practice is an organizational requirement at the initiating phase, while it

⁶ This first, in-depth analysis uncovered twelve practices. In this comparative case study, another practice was added: P13-Performing stakeholder analysis, as it is quite central in the initiating phase.

⁷ As explained in the methods section, it proved more complicated to analyse the practices from a chronological order in the other projects, thus, a multiple case temporal analysis is out of scope of this research, although some insights are offered.

Table 2
Example of evaluation for the enactment of a practice.

Project	Evaluation	Justification
1	++	Coordination meetings have been established every two weeks for this project. Some were postponed, depending on the needs of the project. In addition, participants in these meetings varied as required. According to respondents, several key project members were so busy on other projects that they missed important meetings, furthermore, other project members were in different locations so a visioconference was used.
2	++	According to the PMP, project coordination ('statutory') meetings occur on a monthly basis. The meeting planned on Oct 27 2015 was cancelled as professionals had to finish their report for PPS 75%. The objective of Nov 10 2015, meeting was to plan the completion of PPS 100%. The Nov 24 and Dec 8 2015 meetings were cancelled. On Dec 8–9 2015, an estimation meeting was held to consolidate project costs.
3	+	During the time of the fieldwork, several meetings occurred with the project team. Specific objectives were to be attained: a stakeholder analysis workshop, a workshop to determine possible options, two risk analysis workshops and a conference meeting to organize the validation meeting at SCT. However, there was no proposed calendar or coordination meetings planned.
4	+++	During the revision of the DO until August 2015, team meetings were held every week, on Wednesday afternoons. According to a respondent, this was a good initiative from the project manager to set up those mandatory meetings, as things did not progress well until there was a strong commitment from all team members to revise this project and coordinate all efforts.

becomes an institutional requirement in the planning phase (P11.2-Actualizing the PMP).

4.3. Structuring practices

Five practices are listed as institutional requirements: P3.1/3.2 (Determine options and define chosen option/Detailing the chosen option); P9-Performing risks analysis; P10.1/10.2 (Elaborating the opportunity case (DO)/Elaborating the business case (DA)); P11.2-Actualizing the PMP (planning phase); P13-Performing stakeholder analysis. P3.1/3.2 is quite substantial; we could refer to it as a 'meta-practice', especially in the planning phase, as there are important outputs related to establishing the project schedule and costs.⁸ P9 is also a very important practice, as the output is quantified as a risk reserve which is included in the project budget. P10.1/10.2 is the ultimate deliverable to be attested and authorized by the Council of Ministers – it includes all project documentation.

4.4. Normalizing practices

Six practices are listed as SQI organizational requirements: P1-Granting/managing contracts; P4-Participating in project steering committee; P7-Performing an Integrated Design Process (IDP); P8-Performing value analysis; P11.1-Elaborating the PMP (initiating phase); P12-Performing quality assurance (QA). For P1, depending on the delivery method considered for the chosen option, requests for proposals and contracts other than for professionals might be awarded in the planning phase (most notably for construction management, design-build, turnkey or PPP methods). The purpose of P4 is to help decision-making. Participating in project steering committee is important for governing the project, guiding and deciding on issues. Much of the conciliation between the parties takes place during these meetings, decisions are made and important issues are raised. For P7, a formal procedure has been

⁸ Arguably, establishing the project schedule and establishing the project costs could be labelled as practices. Yet, we chose to include them implicitly within practice 3.1/3.2, as the specific processes and activities related have not been observed during the fieldwork. One exception is an 'estimation meeting' which was held for Project 2, but we included this meeting within practice P5-participating in coordination meetings.

introduced at SQI in 2015 for all new projects of \$50 million (CAD) and over. P8 was mandatory during the planning phase with the previous version of the QGF. However, since 2014, SCT does not formally require it, but it encourages the adoption of this practice, which is required at the organizational level, according to SQI documentation. P12 is a new practice for SQI since 2014, as before quality assurance was done by external reviewers hired by SCT. This practice was still being developed at the time of the fieldwork. However, organizational expertise increases as learning takes place.

4.5. Facilitating practices

Three emerging practices have been identified at the project level, for which no official documentation required explicitly that they be enacted: P2-Implementing a project management office (PMO); P5-Participating in project coordination meetings (although SQI require that a project governance structure be established in the PMP, including mechanisms such as project meetings, the project manager has some flexibility to adapt those according to the project needs); P6-Conciliating between main stakeholder. As we can see from this list, those practices are related to the human-side or 'soft skills', central in behavioral and relationship schools of project management (Söderlund, 2011). The enactment of those practices has been outlined as an important success factor in several studies (e.g. Cooke-Davies, 2002; Chan et al., 2004). Having reviewed the practices from their ostensive side, we now turn to their performative side, as it has been observed in the four projects.

4.6. Performative practices as enacted in the projects

For the four projects under study, we have evaluated the level of enactment of the ostensive practices in the project teams, as 'what people do' (Johnson et al., 2007). This evaluation (strong, medium, low, or non-existent) is the researchers' view, based on a qualitative meta-matrix describing in more details how those ostensive practices were deployed in the projects (Miles and Huberman, 1994), see Table 2 above for an illustrative example. If a practice scores as 'medium' or 'low', it does not mean that the requirement (institutional or organizational) is not met; rather, it means that the

Table 3
Main characteristics and key episodes of the four cases.

	Sector of the infrastructure project	Phase of the project	Key episodes
Project 1	Health	Planning	Fall, 2013 Political command: to revise the functional and technical program and DAI (DO under former governance framework) March 2014 DAI revised. Did not pass approval at Council of Ministers (CM) as an additional technical feasibility report is required Aug, 2014 Technical feasibility study done, DAI revised into DO Oct, 2014 DO approved, at CM Dec, 2014 Ministerial letter authorizing the start of planning phase (DA) June 2016 DA submitted to CM for approval
Project 2	Health	Planning	Sept, 2014 Political command: to undertake DA, no DO requested as this project is “urgent” April 2016 Initial planned date for DA submission to CM for approval (June 2015) Aug, 2016 Revised date for DA submission to CM for approval (June 2016)
Project 3	Justice	Initiating	Aug, 2014 Start of DO with SQI team April 2016 New PM affected to this project June 2016 Planned date for DO submission to CM for approval (Aug, 2015) Dec, 2016 Revised date for DO submission to CM for approval (May 2016)
Project 4	Culture	Initiating	2013 Project Information Sheet approved, start of DAI June 2014 SCT validation meeting, DAI/DO needs major revisions August 2015 SQI project manager affected to another project (promotion) Dec, 2015 Planned date for DO submission to CM for approval (June 2015) May 2016 Official announcement of federal funding for this project Sept, 2016 Revised date for DO submission to CM for approval (May 2016)

sociomateriality of this practice (team gatherings, workshops, the social co-construction of the project, the level of embeddedness of the practice in the project team, etc.) is ‘medium’ or ‘low’ (Gherardi, 2012). Again, those exploratory findings are based on the data collected, observed during the fieldwork and triangulated with participants’ interviews. When we could not directly observe the enactment of practices, we inferred the evaluation based on interviews.⁹ Table 5 presents, grouped in the same categories (structuring, normalizing and facilitating practices), the evaluation of the enactment of performative practices for the four projects.

From this table, several general findings become apparent. Although we have to be cautious not to generalize those results, as the context and the people within each project are unique, there is nonetheless interesting patterns and differences that are worth exploring further. A first evidence is that for the two projects in the planning phase, the overall level of enactment of those practices is stronger than for the starting projects.¹⁰ However, how and whether the enactment of practices affects the governance of a project is still a relevant question - some insights are offered in Section 5.1 below. For now, we focus on results relating to the specific practices and categories.

4.7. Structuring practices

Overall, structuring practices are quite strongly enacted, more so in the planning phase. While the other practices within

that category are more focused on project management parameters, in P3.1/3.2, project team members focus on project content (the functional and technical program/the concept, preliminary plans and specifications). Yet, the level of detail to be attained in those plans needs to find balance (including the number of options to be analyzed at initiating), as project schedule and costs are elaborated out of this practice. Similarly, for P9, risks workshops are held with great care, as the result is a quantification of risk reserves to be included in the project budget. The elaboration of DO/DA (P10.1/10.2) is done in parallel with the development of the project content or product (P3.1/3.2). DA for Project 1 was mandated externally, the other DA seemed to be more work for resources involved and a complex undertaking which caused additional delays, as no DO had been done in that urgent project. In P11.2, the PMP is lowly enacted for Projects 1 and 2, as it was being implemented at SQI at the time of the fieldwork. Some team members seemed a little confused about differentiating this practice from elaborating the DA (P10.2), to which it is appended. In Project 1, the PMP was done by the project manager just before DA was completed. For Project 2, the PMP was produced quite early by the project manager and then sent to the main stakeholders, who returned their comments several months later, which were subsequently included. Lastly, for P13, there was a low enactment of stakeholder analysis in the planning phase, no workshops were specifically held on that, only previous documents were updated. A specific stakeholder analysis workshop was held for Project 3, yet it seemed laborious as some participants were not familiar with this practice. P13 still needs to be more strongly enacted, especially since there is a big emphasis in the QGF on the importance of managing stakeholders, and on accounting for the social acceptability of the project.

⁹ When no data were available for a specific practice in a project, we explicitly said so: (N/A).

¹⁰ It also appears that data was not available or missing for many practices as performed for Project 4. The project was in stand-by at the time of the fieldwork. We attended one project meeting and interviewed six key team members, thus providing a partial view of this project.

Table 4
Ostensive practices.

Practice	Initiating phase	Planning phase
Practices at institutional level "structuring"		
P3.1-Determine options and define chosen option (initiating)	This practice is the main input to the opportunity case. According to the client's needs, possible options have to be evaluated, and the chosen (recommended) option is defined. A Functional and Technical Program (FTP) is produced, delivery mode is determined, risks are analyzed, and the project schedule and cost are established.	This practice is the main input to the business case and leads to the formalization of project schedule and cost. Architects lead the team to detail the chosen option and coordinate the different disciplines. The SQI project manager ensures that the overall process is respected, while project members of the SQI internal expertise support and question professionals. At the end of each stage (concept, PPS 66% or 75%, PPS 100%), a report is made by SQI resources, to which professionals must respond. The level of development of those plans varies depending on the project complexity and risks level; it is decided by the steering committee.
P3.2-Detailing the chosen option (planning)		The quantitative risk analysis is updated and developed; similar to the initiating phase. Mandated professionals and internal SQI expertise team member usually participate in workshops.
P9-Performing risks analysis	Risks workshops are carried out with the project team (SQI, and clients) and animated by SQI resources specialized in risks. A first workshop aims to qualitatively assess, for each option, risks and their potential effects. Then, a second workshop is held to quantitatively analyze the chosen option. Results of the analysis are used to calculate risk reserves and are recorded in the project budget. They reflect the level of detail of the chosen option. The main risk categories studied: strategic risks, design and construction risks (change in scope), social risks, site and environmental risks, financial and legal risks.	
P10.1-Elaborating the Opportunity Case (DO) (initiating)	All practices carried out during the initiating phase lead to the development of the opportunity case (Dossier d'opportunité, DO), which will be reviewed for quality and submitted for approval by the Council of Ministers. As much as possible, the DO is drafted internally at SQI by a dedicated resource (a strategic advisor), which is guided by the project manager.	All practices carried out during the planning phase lead to the development of the business case (Dossier d'affaires, DA). Similar to the practice as performed during the initiating phase.
P10.2-Elaborating the Business Case (DA) (planning)		
P11.2-Actualizing the project management plan (PMP) (planning)	(see 11.1-Elaborating the PMP)	This practice aims to assist the project manager in structuring, managing and facilitating the project. According to SQI procedures, the PMP should be updated at the beginning of the planning phase and approved by the project steering committee.
P13-Performing stakeholder analysis	A stakeholder analysis is performed with the project team, animated by internal resources from SQI. For each evaluated option, stakeholders are identified along with their potential influence. For the chosen option, stakeholders have to be identified, along with their interests and potential risks for the project.	The stakeholder analysis for the chosen option is updated (stakeholders register, PMP), and the client is responsible for developing the communication plan.
Practices at organizational level "normalizing"		
P1-Granting/managing contracts	A service agreement is established at the beginning of the project between SQI and the client ministry. Other contracts might be awarded if needed, depending on the project needs and available internal SQI resources.	Professional contracts (architects, engineers, etc.) are awarded at the beginning of the planning phase. They are formalized at SQI according to government regulations. A separate authorization is required from the client ministry of the project in the case of change orders and program changes.
P4-Participating in project steering committee	The members of the project steering committee are defined in the service agreement between the client and SQI. In the SQI initiating phase procedure, it is stated that a steering committee must be formed when the governance structure is defined and that the committee has to meet during the development of the DO.	The meetings are about every 3 months, plus others if necessary. The composition of the committee may vary according to the needs but is generally: the SQI project manager and his / her superiors, project managers (ministry and the organization initiator of the project) and their superiors. A project progress report is usually submitted prior to the meeting, and a videoconference is widely used.
P7-Performing an Integrated Design Process (IDP)	This practice aims to foster active collaboration between all project stakeholders in order to optimize the quality of infrastructure requirements, concepts, plans, specifications.	Similar to the initiating phase.
P8-Performing value analysis	SQI requests that a value analysis be made when elaborating FTP for all projects over \$ 5 million, either in a progressing way via an IDP (recommended by SQI) or by workshops.	Value analysis has to be done when the concept is elaborated, or, at the latest, at PPS 50%. The objective is to explore and analyze various conceptual solutions in order to optimize the project quality/response to needs, and its costs. The results of this analysis (report and cost reduction) are integrated to the business case.
P11.1-Elaborating the PMP (initiating)	This practice aims to assist the project manager in structuring, managing and facilitating the project. According to SQI procedures, the PMP should be done at the beginning of the initial phase and approved by the project steering committee.	(see 11.2-Actualizing the PMP)

Table 4 (continued)

Practice	Initiating phase	Planning phase
P12-Performing quality assurance (QA)	SCT Directive requires that the opportunity case be certified by SQI, the organization initiator of the project and the client Minister before submitting to SCT for formal advice and to the Council of Ministers for approval. SQI requires a quality assurance process before attestation, including 39 steps, for a duration of about three months. The objective of this practice is to involve quality assessors at the beginning of the process, before the DO is completed. The project manager organizes punctual meetings to present the project for preliminary validation, both internally at SQI and with SCT and clients.	Similar to the initiating phase.
Practices at project level "facilitating"		
P2-Implementing project management office (PMO)	No organizational rules for setting up a PMO. Unlikely to happen in the initiating phase, as resources are usually working part-time on a specific project.	No organizational rules for setting up a PMO. As for most projects, resources are usually working part-time, setting up a PMO requires a very large scope and dedicated resources to be considered of value for the project team.
P5-Participating in project coordination meetings	SQI requires that a project governance structure be established in the project management plan, including mechanisms such as project meetings (it is suggested to be once every other week or every week when needed), yet the project manager has some flexibility to adapt according to the project needs.	Similar to the initiating phase. The architect conducts these meetings, keeping track of technical issues, timelines and budgets. When strategic issues are raised, the project manager and the client follow up on them, bringing them to the project steering committee as required.
P6-Conciliating between main stakeholders	No formal rule in this regard, implicit in the PMP in the section "Project governance structure". Conciliating is a practice that is done on an ongoing basis, in project steering committee meetings, in coordination meetings, by e-mails, videoconference and by phone calls.	Similar to the initiating phase.

4.8. Normalizing practices

Overall, normalizing practices are quite strongly enacted in the planning phase, but much less so for the two starting projects. For P1, it is quite normal, when the resources are found internally at SQI for initiating a project, there is no need to grant or manage external contracts. P4 is also quite strongly enacted in the projects, even though no data were available for Project 3 at the time of the fieldwork. P7 is a recent initiative introduced by SQI in 2015, so its enactment has been limited in the projects studied. There was one workshop held for Project 1, led by external consultants, and for Project 2, a respondent (SQI project management expert) mentioned that the elaboration of PPS was "very optimal" as it depends on the individuals. P8 is also quite strongly enacted at the planning phase, with corresponding workshops held for the two projects animated by mandated professionals. Projects in the initiating phase did not enact P7 nor P8, and as far as the PMP is requested in P11.1, the enactment of it was quite low. Again, these were all practices being implemented at SQI at the time of the fieldwork. For P12, this important practice was enacted at medium level for three out of the four projects, as this newly established practice caused some confusion. Few people had undertaken this internal quality assurance process. For Project 1, the strategic advisor who had been involved in the project from the start had just transferred in the quality assurance team, so this allowed a strong enactment of this practice. In conclusion, it is to be emphasized that SQI is quite a young organization, having been created in November 2013, so the results show that there is still change, procedures established,

for which people have to adapt to in order to enact those in their projects.

4.9. Facilitating practices

Overall, the human related practices were quite strongly enacted in projects, except for P2, as only one project has implemented a PMO. At the time of the fieldwork, SQI was considering normalizing this practice for major projects but it was still being done on an individual basic according to project teams. Respondents agreed that a PMO had a positive impact on the project and facilitated coordination among professionals and the consultation of medical groups. For P5, there was some issues in the enactment as some important resources were not systematically attending coordination meetings (Project 1), as some meetings were postponed or cancelled (Project 2), or as no coordination meeting were planned in addition to specific workshops (Project 3). For P6, the enactment was quite strong for all projects, with some levels of complexity for Projects 1 and 3. In Project 2, conciliating has happened on an ongoing basis, yet, it has been difficult, with some conflicts which were not promptly resolved, impacting the project regarding some important issues. To sum up, here is a quote from a SQI project manager attesting how central facilitating practices need to be: "It is a coordinating and planning effort, with the participation of numerous stakeholders. Both internally and externally. So, we have to deploy a massive coordination effort, to lead all those people to deliver." Having reviewed results from the ostensive and the performative sides of practices, we now discuss those findings.

Table 5
Performative practices as enacted in the projects.

		Structuring' Practices					Normalizing' Practices					Facilitating' Practices				
		P3.1-Determine options and define chosen option	P9-Performing risks analysis	P10.1-Elaborating the Opportunity Case (DO)	P10.2-Elaborating the Business	P11.2-Actualizing the project management plan (PMP)	P13-Performing stakeholder analysis	P1-Granting/managing contracts	P4-Participating in project steering committee	P7-Performing an Integrated Design Process (IDP)	P8-Performing value analysis	P11.1-Elaborating the PMP (initiating)	P12-Performing quality assurance (QA)	P2-Implementing a project management office (PMO)	P5-Participating in project coordination meetings	P6-Conciliating between main stakeholders
Planning	Project 1	+++	+++	+++	+	(+)	+++	+++	(++)	++		+++	+++	++	+++	
	Project 2	+++	+++	++	+	(+)	+++	+++	(+)	+++		++	-	++	++	
Initiating	Project 3	+++	++	++		++	N/A	N/A	N/A	N/A	+	++	-	+	+++	
	Project 4	++	N/A	(++)		N/A	N/A	(+++)	N/A	N/A	+	++	-	+++	+++	

Legend:

- +++ Strong enactment of the practice in project team.
- ++ Medium enactment of the practice in project team.
- + Low enactment of the practice in project team.
- No enactment of this practice in project team.
- () Level of enactment inferred by the researchers based on interviews (no direct observation).
- N/A No data available on this practice.
- This practice is required/enacted at another level.

5. Discussion

This section elaborates on three aspects of project governance. First, the relationship between the enactment of practices and their impact on governing is tackled. Second, we explore the link between sociomateriality of the governance framework and project governing. Third, we propose a conceptualization of ‘governance-as-practice’.

5.1. The enactment of practices and project governing

Before discussing the interrelation between the enactment of practices and project governing, it is helpful to address the role of formal governance in this interplay. The QGF, as an artefact, embodies the formal governance expected to be delivered; it both enables and constrains governing and the enactment of practices (Golsorkhi et al., 2010). The QGF is a governmental tool which instigates the process of project governing; it is the initiator of going from ‘governance’ to ‘governing’, a mediator between the governmental vision and people's actions (Lascoumes and Le Galès, 2004). On the other side, project

governing allows for the operationalization of project governance through the enactment of practices. Overall, the results tend to suggest that there is a link between the enactment of practices and project governing. How the enactment of practices influence project governing and address specific project issues is a question that would need more empirical investigation. Yet, for now we advance the following proposition: *the enactment of practices, especially the ‘facilitating’, emerging ones at the project level, has a positive influence on project governing.*

Project 1 team is the one who enacted more strongly the most practices; the DA was delivered on time, and, according to us, their project governance was well-executed and had positive impacts. Project 2 team also enacted quite strongly many practices, yet less than for Project 1. They had some difficulties to coordinate/conciliate between the different stakeholders, also given that this urgent project had by-passed the initiating phase, this resulted in some delays. As Projects 1 and 2 were both in the planning phase, there were already professionals working full time on those projects, which might explain why more practices were more strongly enacted than for the projects in the

initiating phase. Moreover, Projects 1 and 2 were in the health sector, while the two others were in other sectors. The health context is quite specific, bringing more complexity overall according to many respondents; also, there have been important changes in this sector regarding project management over the last years, Project 3 underwent a complex course of actions at the time of the fieldwork, lacking vision and framing. There has been less practices enacted less strongly in this project; there was no project steering committee in place, and few coordination meetings. Project 4, although harder to assess for us, seems to have been properly governed from an internal perspective, but as the official announcement of federal funding came in May 2016, this impacted the project initial schedule.

Therefore, having in place an active and efficient project steering committee (P4), coordination meetings (P5) and proactively conciliating between main stakeholders (P6) seem to favor project governing, and enhance project governance. The close coordination of project team members and mobilisation around project objectives might not address larger issues such as political ones (Flyvbjerg, 2014), yet having a commitment from the main stakeholders to deliver on time and on budget is a first step in the good direction. After all, many project issues seem to have more to do with human aspects than with technical or economic ones. For example, here are some main issues as raised by respondents of all projects: the impacts of organizational change, role confusion, human resources mobility, the number of stakeholders involved, decision-making, lack of coordination and burdensome administrative processes. Enacting practices with all team members might help to get through difficult issues more easily. This is in line with Touati et al.'s (2015, p.19) results: “distributed governance process, implemented in the context of the development of collaboration practices between levels of care in the management of diabetes (case 1), contributed to the emergence of a better adaptation.” Next, we come back to the link between institutional artefacts and project governing.

5.2. Sociomateriality of the governance framework and project governing

A governance framework is an institutionalized artefact, as people have to comply with it – it is ‘structuring’ in the case of project governance. Governance (embodied through artefacts, the ‘material’) and governing (embodied through practices, the ‘social’) are mutually constitutive, such as the ostensive and the performative aspects of practices are, forming ‘mutually dependent ensembles’ (Orlikowski and Scott, 2008). From an ontological perspective, there is no clear distinction between the social (governing) and the material (governance), those are interrelated and interplay as a “dynamic materiality configures and reconfigures the practices and possibilities of different modes of engagement by multiple users” (Feldman and Orlikowski, 2011, p.1248). Building on Feldman and Orlikowski (2011, p.1249), artefacts do not stand alone with inherent properties, but “their material characteristics and capabilities are relevant only in relation to specific situated practices”. Some argue that flexibility is needed in order to

navigate through all those formal and informal requirements, but to what extent should it be brought? Some research has been conducted specifically on this matter (e.g. Miller and Lessard, 2000), but our research allows a broad understanding which could be used to begin a reflection on this important point. Some have questioned the role of artefacts while hoping for patterns of action (Pentland and Feldman, 2008). Hales and Tidd (2009) have argued that what is most fundamental, over artefacts, is the representation of artefacts made by actors (their ostensive and performative sides). Learning how to make sense of a governance framework along with institutional and organizational change is also an important dimension, as highlighted by this project manager “the *Directive*, we learn how to dissect it, we learn to live with a new process that we did not know. Arguably in all that, there are adaptations that we make”.

From a sociomaterial point of view, we have seen governance in action, from a micro-perspective, and our results highlighted that fine grained, mundane practices are constitutive of project governance, much more so than is usually conceived in the literature (e.g. Too and Weaver, 2014). A question that came up during the course of this study was whether we were really witnessing project governance or only the management of those projects. After all, “governance is not management and the functions must be separated” (*ibid.*, p.1387). So, what are the fundamental distinctions between project management and project governance, and the links between them? In fact, there is no clear line between project management and project governance, as this blurred zone is typical of empirical processual analysis as presented in Langley (1999). Yet, as Biesenthal and Wilden (2014) have suggested, project management is mainly concerned with operational control and execution of the project work, while project governance is a ‘higher-level structure’ to define processes and structures to govern multiple projects. By studying the enactment of practices in a project, we observed the way the institutional governance framework was translated into practice, but we also witnessed project management in action. This micro perspective on activities is important to understand project governance, which cannot strictly happen at a ‘higher-level structure’; it has to be translated by actors and enacted into projects.

Müller et al. (2015) have made a distinction between ‘project governance’ (governance of individual projects), ‘governance of projects’ (governance of groups of projects, such as portfolio), and ‘governmentality’ (the way to govern). In line with Foucault's concept of ‘governmentality’ and its interpretation by a group of scholars that it is an action system focusing on action and instruments (Hatchuel et al., 2005), it is therefore useful to consider state action as decentralized and fragmented, but also as a ‘fundamental locus of power’ (Arellano-Gault et al., 2013, p.158). While public instruments and tools are broad categories (a policy such as a governance framework being one of them), the use of several of them as seen and described in the governing practices uncovered in this research allows for a certain auto-regulation and control of project actors. By putting in place several mechanisms and

controls for project governing, decision-making is made more visible, especially when accountability is enforced. This is in line with Müller et al.'s (2017) conclusion that more governance mechanisms correlate with higher success. However, decentralization and pluralism might generate less desirable outcomes, especially when there is a lack of leadership, when resources are scarce or when the temporal horizon of a project is too long (Denis et al., 2011). By studying practices at a micro-level, we were able to understand more about the way instruments and tools were used in major public projects in Quebec. Next, we develop a conceptualization based on how the QGF is translated into practice.

5.3. Governance-as-practice

Building on the theoretical background of the practice perspective, we propose a definition of 'governance-as-practice' and a visual representation based on our multiple-case analysis. First and foremost, it has to be emphasized that our conceptualization is based on the specific context of Quebec (Canada), as the institutional framework has been translated into practice. As Johnson et al. (2007, p.36) have explained: "Social and economic contexts are not outside, but totally internalized in everything that happens. In this sense, although some might resist these terms, the practice perspective both looks more deeply into the micro-activity inside organizational process and attends more seriously to the macro-context outside process." We agree with those authors that the study of practices from a micro-perspective is more powerful when contextualized and related to other levels - such as organizational and institutional - from a theoretical perspective (*ibid.*). Also, as suggested by Langley et al. (2013), representing processes visually and their dynamics is often an essential part of communicating theorizations; we have thus been attempting to respond to this call. Building on Johnson et al.'s (2007, p.7) definition of strategy-as-practice, we propose the following definition for 'governance-as-practice': a concern with what people do in relation to project

governance and how this is influenced by and influences their organizational and institutional context. Here, agency has been examined as a distributed phenomenon. Thus, Fig. 1 presents our conceptualization of 'governance-as-practice' for major public infrastructure projects.

The point of departure is the institutional QGF, the artefact that has to be complied with. The translation process of this governance framework by project teams into practice is direct in the case of structuring practices, and more diffuse in the case of normalizing and facilitating practices, as those are enacted within a project in order to respond to objectives and imperatives. Yet, there is also a double process of translation, as the QGF is translated into organizational artefacts which provide more details and guidance to project team members: a 'macro-process', rules and frameworks. This organizational artefact is then translated into practice by team members, directly in the case of structuring and normalizing practices, and in a more diffuse way in the case of facilitating practices. Thus, there is a double, and direct, translation from the artefacts to the enactment of structuring practices, which are directly required in the institutionalized QGF but also at the organizational level. As this has been illustrated by a respondent (SQI project manager): "The command that we have received, it is via the *Directive* [the QGF], so it is our main reference. The other document [the macro-process and other tools and methods] is more detailed, so we refer to it as we progress in the project lifecycle, in order to understand what is next. I think that those two documents are complementary, they do not serve the same purpose". Normalizing practices are more influenced by organizational rules, yet they indirectly respond to institutional requirements. Facilitating practices are emergent at the project level, enacted so that the project team can better respond to both organizational and institutional requirements. Governance-as-practice is therefore an ongoing, iterative process, and the outcome is multilevel project governing. The interplay of the enactment of practices at multiple layers has a dynamic dimension which is fuelled through the reflexivity of project actors. As suggested by Jarzabkowski and Wolf (2014),

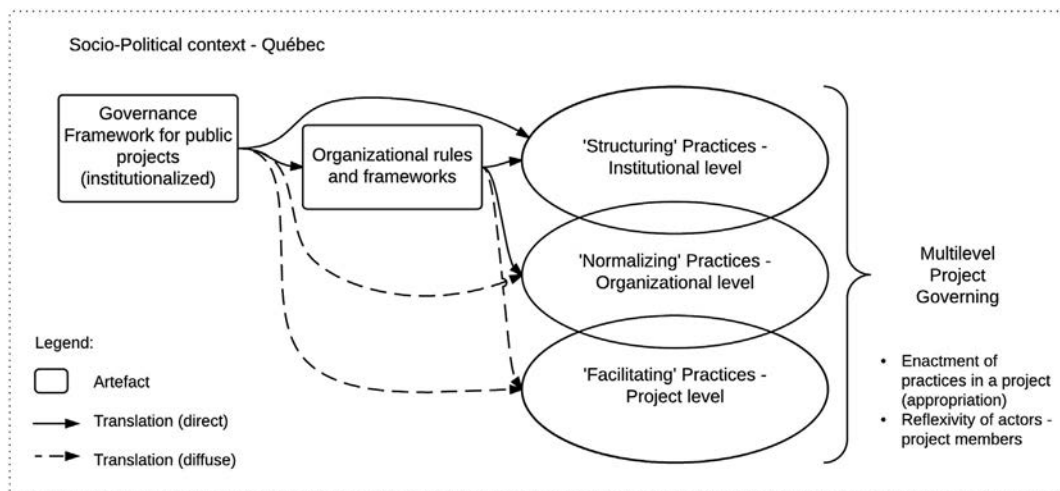


Fig. 1. The process of project governing for major public infrastructure projects.

their study of ‘practical coping’ can be conceived as a process with a dynamic dimension, as a continuum of ‘structured emergence’, from ‘deliberate’ coping to ‘emergent’ coping. Similarly, we argue that project governing is a continuum to which practices are enacted at different levels: more structured at the institutional and more emergent at the project level. This conceptualization is in line with Biesenthal and Wilden's (2014) call to account for the multi-level nature of governance and characterize it across different organizational layers. There is still much to be uncovered in the interplay between those layers. As suggested by Wright and Nishii (2007), it is the linkages between the different processes that provide avenues for exploring relevant issues in order to develop theoretical understanding. The exploration of multilevel relationships is one avenue proposed by Mathieu and Chen (2011) to advance further the multilevel paradigm in management research. For now, we now turn to our conclusion.

6. Conclusion

This research aimed to study how project governance was made into project governing. Based on processual and practice perspectives, the main theoretical contributions are 1) to make a proposition about the influence of the enactment of practices on project governing, and 2) to propose a conceptualization for ‘governance-as-practice’ which attests the importance of sociomateriality of artefacts and practices. Through an exploratory, qualitative multiple-case study, we investigated how project governing was enacted by actors, as the institutional project governance framework was translated into projects. The results of the QGF translated into four major public infrastructure projects are presented and thoroughly discussed. The enactment of practices is a multilevel process which impacts on three levels of analysis: the project, the organizational and the institutional. The process of project governing is conceived as dynamic and multileveled. Given that the enactment of practices at each of those levels plays a different but complementary role, studying their linkages along with their temporality is an interesting avenue for future research. Another avenue is to uncover linkages between the enactment of practices, organizational learning and change, which might ultimately impact institutionalized tools (Lawrence et al., 2011). For governmental actors and people involved in major infrastructure projects, the main contribution of this research is to understand and document current practices in order to reflect on them and gain deeper insights about project governance. The research design could be replicated to other countries, in order to study whether these results are generalizable for other governments and governance frameworks.

There are some inherent limits to this study. The first one concerns the generalization of the results. While it is confined to the Quebec government and institutional framework, the multiple-case strengthens the validity of the results as applied in this context. Also, we had a limited access to the fieldwork in terms of time, access to project meetings and documentation – given that those major projects have a project-life cycle of many years. Lastly, we have based our evaluation of the

enactment of practices on our assessment. Thus, people's perceptions and interpretations have not been a focus of this study, and again this avenue would be promising for future research. We hope that studying ‘governance-as-practice’ will increase knowledge in the field and beyond, as most studies up to now have focused on the formal, institutionalized governance framework.

Conflict of interest

There is no conflict of interest.

Acknowledgements

This doctoral research was funded by the Social Sciences and Humanities Research Council of Canada and the ESG UQAM Chair in Project Management. The author wish to thank the Quebec government for allowing this research to be conducted, and all participants who contributed to make this possible. An earlier version of this paper was presented at EGOS 2017 conference. The author is grateful to Monique Aubry, Nathalie Drouin, Joseph Facal, Atif Ansar, two anonymous reviewers, the guest editors and participants of the EGOS 2017 conference who attended this presentation for their useful comments on earlier drafts of this article.

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