1. Introduction

This editorial reports on the findings from a one-day theory symposium held in advance of the PMI Global Congress 2012 in Vancouver, Canada. Twelve researchers in the project management domain participated in an intensive discussion about developing a comprehensive set of theories to describe, explain and predict aspects of projects and project management.

In advance of this meeting, several participants had agreed to discuss one specific theory-building strategy\(^1\) — to bootstrap from existing theory about permanent organizations. To do this, one has to have a filter through which extant theory is passed. The symposium proposed such a filter, a set of characteristics which distinguish permanent from project organizations. The symposium and therefore this editorial are not intended as a review of previous theory building initiatives.

The structure of this editorial follows the structure of the symposium. First, we present a discussion about the motivation and goals for developing comprehensive theories for the project domain. Second, participants provide some “case studies” based on their attempts to theorize about projects. Third, a typology of the difference between projects and permanent organizations is proposed. Finally, we suggest how this typology can be expanded and used by researchers as a filter through which to view projects and develop theory in the future.

2. Motivation and goals for project theory

The symposium identified a number of shortcomings in research that are reported in project management conferences and journals, including:

- Studies that reference, but do not build upon results of previous research, thereby forgoing the opportunity to build a cumulative stream on a specific topic.
- Studies that accept theories from other domains such as organizational theory as if they ought to apply unproblematically to projects.
- Studies that report on project and project management phenomena, inventing new language to describe them, thereby missing the opportunity to adapt existing organizational theory to project organizations.

Such limitations result in studies that are often practically focused and rich in descriptive detail but may be specific to a given context, and not broadly applicable. Such work is not easily generalized and developed into heuristics that can be understood and applied by practitioners. This is particularly true of case study research where without a theoretical approach, the heuristics developed may have a “motherhood” flavor rather than much predictive value. They lack the “aha” effect that stimulates reflective project managers to advance practice.

These limitations also mean that most of our studies are not publishable in top management journals. To the extent that our work is confined to project management journals, it will languish unused and un-cited by researchers from other fields. If our influence remains limited and we remain isolated as a field, the result will be diminished availability of funding and vulnerability to institutional pressures.

In the project research community, we believe that projects are the engine of growth and innovation and therefore should be seen as critical to senior leaders in industry and government. Unfortunately, we have not been able to make that case clearly and leaders rarely consider the management of projects to be of concern to them. With theory that is parsimonious and predictive, supported by rich empirical data, our research will be more credible, more understandable and more actionable by these senior managers.

In short, we felt that much of project management research is “mired in the middle”, neither sufficiently rigorous for the academy nor sufficiently insightful for practitioners.

Why has this happened? Many ideas were proposed, including:

- The newness of the project research discipline and the fairly recent introduction of the organizational focus to supplement the technical focus.
- The lack of formal training of many project researchers in organizational disciplines (i.e. psychology, economics,
organizational theory), leaves us without the tools to fully understand and describe organizational aspects of project phenomena.

- The allure of the complexities of specific project phenomena results in researchers doing case study after case study, rather than building theory.

These issues are not unique to project management research. They are stages of growth that other fields (i.e. information systems, innovation, entrepreneurship) are progressing through.

Although management theory has been accused of lacking in usefulness and therefore impact (Soderlund and Maylor, 2012), we believe that statements of principles about cause and effect, based on research grounded in the reality of practice, are a worthwhile goal of scholars. Therefore we do not seek to divorce research from the messiness of practice, but to integrate our knowledge about practice into models and messages that can be both tested empirically and also translated into maxims for project managers.

What might be the goals of developing more rigorous theory about projects? On the journey towards creating a set of shared concepts, constructs and measures, we will move from pure description to explanation and perhaps to prediction about project management outcomes. We will be able to publish in a wider set of journals such as Organization Science, Academy of Management Journal, and Human Resource Management. Researchers from other fields will become interested in projects as a unit of analysis and will publish studies about projects in our (and their) journals. Project-based research will become more visible and important within the wider academic community; thus strengthening our academic influence. This journey will not be easy or without cost. We must raise our sights, improve our game, and compete with other organizational researchers for precious journal space. However, the end goals are worth it, we believe, and necessary for us to pursue in order to carve out a sustainable role in the academic community.

3. Case studies

Three researchers participated; each of their stories is summarized below followed by comments about their research choices.

These researchers told stories of how they had tried to build theory. These are summarized below. Because it was agreed that the symposium would focus on the application of organizational theory to project contexts, the discussion focused primarily on their challenges and successes.2

Dr. Brian Hobbs reported on a research program with Dr. Monique Aubry which investigated the emergence of a new organizational unit called the project management office. Over an eight year span, they conducted 2 large surveys and many case studies investigating PMOs and published their findings widely in project management journals and in three books (Aubrey, Müller and Glückler, 2012; Aubry, Hobbs, Müller and Blomquist, 2011; Hobbs and Aubry, 2010). Dr. Hobbs reported on their search for a theoretical lens within which to explain their findings about the frequent changes in structure that PMOs undergo. Organizational change models, actor network theory and the competing values framework were each considered, but failed to adequately explain the broad themes and trends in the data. Their search has produced rich descriptions based on both qualitative and quantitative data, provided several elements of explanation, but has not produced predictive results.

We discussed what the research might have looked like if they had made the comparison in advance with other forms of emergent organizations, for example the quality assurance office or the strategic planning department. One issue they faced was that until one knows what the phenomenon looks like, it’s difficult to draw comparisons because the distinguishing features are not clear. Some participants thought that there might be a four step process to investigate similar phenomena — initial descriptive data collected for discovery, identification of comparators, search for relevant explanatory theory, then a theory-driven data collection. This process suggests that we include relevant theory early, assess its usefulness based on its domain and assumptions, and take what is relevant into the research design.

Dr. Li Liu presented insights from studies which tried to predict the control mechanisms that would be used and their effects on project performance. Consistent with findings from an emerging stream on portfolio of control, they found that the portfolio of control modes employed by project organizations differed from that predicted by the organizational control theory (e.g. Liu and Borman, accepted for publication). In hindsight, they felt that it might have been possible to anticipate these differences because of the prevalence of contractors within the project organizations, whereas the original theory was created using data from organizations who employed mainly internal staff.

Another study presented by Liu (Liu and Leitner, 2013) explored the notion of organizational ambidexterity, which is often enacted in “permanent” organizations using the mechanism of structural separation (e.g. one unit focuses on exploitation of existing products, services and markets, while another focuses on exploration of new products, services and markets). Projects, however, achieved ambidexterity using temporal separation (e.g. exploration at one stage, exploitation at another). Could this finding have been anticipated by examining the difference between traditional and project organizations with respect to structure and time pressure? Possibly. Regardless, this finding is a cornerstone in the task of creating control theory for project domains based on the observation that projects need to innovate in some stages and to follow routines efficiently in others. The researchers didn’t need to introduce new theoretical language to develop a theory of within-project ambidexterity.

Dr. Paul Bannerman (2012) used organizational learning and capability development theory in a project context to try and predict project performance. The study found, in contrast to most traditional permanent organizations, that project organizations struggle to learn or develop new capabilities if they are not already available at the start of the project. Systemic learning and

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2 As this is not a research article, we will not be comprehensive in our citations. We include only enough citations to lead the reader to the author’s work.
capability barriers result from a focus on delivering the required output, the temporary and inter-organizational nature of the team, and difficulties in accessing and interpreting prior learning. By contrasting the characteristics of projects with those of permanent organizations, this work may form the basis of a new theory of learning and performance within project organizations.

Banermm (2010) also examined the organizational structure of projects. Multiple structural forms were found in project organizations, not just the simple team-based structure assumed by many practice-based prescriptions. Unlike permanent organizations in which organizational structure is a variable at managers’ disposal to manipulate, project structure is largely inaccessible to the project manager, exposing the project to unmanaged risks. Additional theorizing beyond that which is currently available in organization theory is needed to handle this exposure in project organizations.

These case studies demonstrated that extant organization theories may be usefully adapted, based on careful data collection, into project settings. These adaptations could also offer meaningful insights to enrich the original organization theory.

We suggest that future research use an a-priori juxtaposition of organizational theory against project realities as input to research design. This approach should result in a more informed data collection plan, more discriminating use of existing concepts and terminology, and more robust findings.

4. Projects and permanent organizations

The symposium had agreed to think about how theory based on permanent organizations could be used to create theory about project organizations. One approach is to take a 5 step process:

1) Identify the key similarities and differences between the two kinds of organizations
2) Select a theory lens for a particular research study
3) Understand what kinds of organizations and what questions the theory purports to explain
4) Identify the gaps between this intent and the realities of the projects that the research study is investigating and
5) Craft the research design with these in mind — modifying the data collection plan as necessary.

Because step 1 is a prerequisite for the other steps, we next attempted to identify some of the similarities and differences between traditional and project organizations, recognizing that this had been done several times before (e.g. Lundin and Söderholm, 1995; Söderlund and Tell, 2011; Turner and Müller, 2003) and that we would need to accept a “straw man” model of each. The results are shown in Table 1 below, categorized into 6 headings: Duration, Strategic Intent, Timeline, Human Resources, Governance, and Career Progression. In the middle column, we identified some characteristics of the traditional and project organizations. In the third column, we show some of the implications of the differences and similarities. We do not claim that this list of observations is complete or even true; they represent our discussion at the symposium and are intended as input to theory building and research design and theory building.

5. Insights and roadmaps

There were two overarching conclusions from this symposium. The first was the confirmation of the original hypothesis — that focusing on organization theory and identifying when and how it might inform project phenomena might give us a path to developing our own theories. The second, unintended insight, was that projects have much in common with specific types of traditional organizations (e.g. start-ups, M&As, alliances). They may also provide some distinct features and offer a test bed for enriching organizational theories.

We concluded that:

- The “temporary organization” characteristic of projects is only one theoretically relevant aspect. There are many differences, including those in Table 1, which can form the basis for project-based theory.
- There is no overarching theory which will explain all projects or even all aspects of a single type of project. Because projects are organizations, we will need many theoretical lenses through which to describe, explain and predict their behavior.
- There is enough about projects that is organizational so that the use of existing organization and management theory as a starting point has merit. We shouldn’t invent new constructs or language unless there is a clearly established theoretical and empirical need to do so.
- In addition to organization theory, other theoretical lenses have promise — for example, economics, strategy, and individual level theories such as expectancy theory.

The symposium also indulged itself in some blue sky thinking about improving our influence within the academic and senior practitioner communities. The ideas included:

- Writing review articles about organization theory — what limitations organization theory has in dealing with projects, and how project theory might enhance organization theory.
- Studying history to understand how management theories got legitimized and what we can learn from their emergence and growth.
- Building organization and management theory courses into project management PhD curricula.
- Developing a journal like HBR — which couples captivating stories with models and typologies and ties these to organization level outcomes.

In summary, we believe that organizational theories have much to offer to the advancement of project management knowledge, both in terms of their explanatory power and the rigor in their methodology. Care needs to be taken when adapting extant organizational theories to project settings, especially in relation to the differences as identified in Table 1, because these differences might alter the form and substance of these theories. On the other hand, projects might offer an interesting test-bed for
enriching organizational theories. We hope these insights will encourage project management researchers to adopt and adapt organizational theories in their work and build a set of robust explanations about project organizations.

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