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COMMENTARY

Idiosyncratic musings on studying cases

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After much consideration and deliberation, I have selected the title above for this brief manuscript, mirroring the interactionist perspective suggested by Weick (1979), and the related shift from organization to organizing. Indeed, in contrast with the myriad of "making the case for case studies" texts I found while searching the library database, I believe that "studying cases" is a more appropriate term than "case studies" to convey the *Project Management Research and Practice* (PMRP) vision, which is the basic purpose of this article.

I define studying, based on the Merriam-Webster definition, as engaging in:

a literary or artistic production intended as a preliminary outline; an experimental interpretation, or an exploratory analysis of specific features or characteristics; a careful examination or analysis of a phenomenon, development, or question; a state of contemplation.

Studying a case -I will come back to the definition later - involves a reflexive process, and interacting dynamics of co-transformation and translation between the case, the student (the one who studies), and the relation between the student and what is studied. The use of case studies must resonate with both scholars and project practitioners.

While it is widely acknowledged that "good" or "best" practice needs to be informed by theory and that theory, either conceptual or empirically based, should aim at making an impact on practice, the practice—theory gap is still prevalent. This gap and how to overcome it has been widely discussed among scholars and practitioners.

If, however, we consider the publications offered in the project, programme, portfolio management (P3M) space, we have on the one hand classical research journals welcoming papers based on laws and hypothetico-deductive models or statistical generalizations (both exemplifying a prevalent logico-scientific thinking) and, on the other hand, magazines welcoming opinion-based or "fashion" and "hype" articles advocating claims lacking any scientific grounds or justifications.



Neither one nor the other type of publication is really suitable to address and/or offer managerial insights, in a rigorous way, with regard to the organizing context of P3M and its increasing volatility, uncertainty, complexity, and ambiguity (VUCA), affecting organizations and the socio-economic environment, described as "Chaordic" (Hock 1995), within which they operate. Between inapplicable generalizations and pure anecdotes, there is a need for qualitative accounts offering sound middle-range theories (Merton 1949) and "petits récits" (Lyotard 1984).

These accounts (for example, case studies) aim at narrating organizations, collecting stories, or studying organizations as narration (Czarniawska 1997, 1998). Piaget aptly remarked, "intelligence organizes the world by organizing itself," as quoted in von Glaserfeld (1984, p. 24). Following this reasoning, one way of viewing organizations as complex systems is to explore complex ways of thinking about organizations – as complex systems. As pertinently demonstrated by Tsoukas & Hatch (2001), a narrative approach to organizational complexity is highly relevant to make sense and support complex thinking about complex practice.

Quantitativists sometimes challenge the value of case study research and more generally qualitative accounts (Patton & Appelbaum 2003). However, Say (1964, pp. xix–xx) mocks the naivety of the public toward statistics:

Sometimes, moreover, a display of figures and calculations imposes upon them; as if numerical calculations alone could prove anything, and as if any rule could be laid down, from which an inference could be drawn without the aid of sound reasoning. The mathematical method, with its seeming exactitude, can only seriously distort the analysis of qualitative human action by stretching and oversimplifying the legitimate insights of economic principles." (Rothbard, 1997, p. 42-43)

This is acknowledged by Anderson (1997, p. 566):

Scientists tend to place too much focus on averages ... [whereas] much of the real world is controlled as much by the "tails" of distributions as means or averages: by the exceptional, not the commonplace; by the catastrophe, not the steady drip ... We need to free ourselves from "average" thinking. (Anderson, 1997: 566 in Andriani & McKelvey, 2007, p. 1221)

In order to elucidate a PMRP vision, I provide initially, drawing on some of my previous writings, a snapshot of what I consider key aspects related to the value of studying cases. The specific context of project management research leads me to suggest a pluralistic approach to "live" the project "phenomena." From there I propose that as part of social sciences, project management is non-paradigmatic and cannot therefore be captured by any hegemonic approach. However, project management, as a science that "matters," must offer ways to bridge the theory—practice gap. Ultimately, I suggest, "knowing as practicing" and practical wisdom (that is, phronesis) as strong grounds for a project management research mode of inquiry, leading to comprehend both scholars and practitioners as "praXitioners."

I follow by offering a summary of thoughts about case studies from some major authors. In doing so, I take the opportunity to offer a map of the case study landscape, and useful guidance for the reflexive scholars and practitioners willing to embrace the science and the art of studying cases.

Project management research in context

For the past 60 years, organizations have increasingly been using projects and management of, by and for projects to achieve their strategic objectives (Morris & Jamieson 2004; Morris &



Geraldi 2011). Project management makes an important and significant contribution to value creation globally. However, the "glocal" context in which projects are performed shows increasing VUCA affecting organisations and the socio-economic environment in which they operate (Gareis 2005). Two main dimensions are considered in research: uncertainty (and its two dimensions: volatility and ambiguity), and complexity (Bredillet 2015). Because action takes place over time, and because the future is unknowable, action is inherently uncertain (Aristotle 1926, p. 1357a). Acts involve time, irreversibility, indetermination and contingence, and uncertainty (Sanderson 2012; Knight 1921). "We simply do not know" (Keynes 1937, pp. 113–14). Management situations (here both practice and research) are complex systems in the way they involve interdependence and connections between actors, objects, and context.

Drawing on complexity science, Andriani & McKelvey (2007, 2009) and McKelvey & Boisot (2009) have demonstrated how the Gaussian (atomistic ontology) and Paretian (connectionist ontology) worlds are linked through scalable free patterns and power law distributed phenomena rooted. In this context, systems are fluctuating between edge or order and edge of chaos of the Ashby Space (Ashby 1958). Thus, the uncertainty and complexity leads to an increased variety of stimuli from the organizational and socio-economic environment (practice) to project management research (theory), and to adaptive tension between the variety of stimuli and the variety of response provided by research (and the converse).

Developing efficient and effective responses involves moving beyond the traditional dichotomy between modernism and postmodernism. Indeed, many have questioned the rationalist, positivist, and quantitative tradition and paradigm supporting project management research and practice (Bredillet 2010), and the lack of relevance to practice of the current conceptual base of project management, despite the sum of research, development of standards, best practices, and the related development of project management "bodies of knowledge" (Winter et al. 2006).

This questioning mirrors a similar enquiry within social sciences (for example, Say 1964; Tsoukas & Cummings 1997; Flyvbjerg 2001; Boisot & McKelvey 2010), calling for new thinking. In order to get outside the rationalist "box," Toulmin (1990, p. 11) suggests a number of possible paths, summarising the thoughts of many authors:

It can cling to the discredited research programme of the purely theoretical (i.e. "modern") philosophy, which will end up by driving it out of business: it can look for new and less exclusively theoretical ways of working, and develop the methods needed for a more practical ("post-modern") agenda; or it can return to its pre-17th century traditions, and try to recover the lost ("pre-modern") topics that were side-tracked by Descartes, but can be usefully taken up for the future.

Paradoxically, and interestingly, in their quest for so-called postmodernism, many authors build on "pre-modern" traditions such as the Aristotelian one (for example, MacIntyre 1985; Tsoukas & Cummings 1997; Flyvbjerg 2001; Blomquist et al. 2010; Lalonde et al. 2012). Authors such as Boisot & McKelvey (2010) suggest approaches to integrate the two traditions. On the one hand, classifications of phenomena governed by a tradition of natural sciences, rationality, universality, objective reality, and value-free decision-making (Cicmil and Hodgson 2006) exemplify the development of "standards" and "bodies of knowledge." On the other hand, "the organizational reality, which is often messy, ambiguous, fragmented, and political in character" (Alvesson & Deetz 2000, p. 60) leads to the quest of Verstehen, or "the intuitive quickness of enlightened understanding" (Schütz 1964, p. 4). This can be related to the notion of relevance by



feasibility (Le Moigne 2007, p. 117) and Ingenium, being "an 'intelligent' action" or the "mental faculty which makes [it] possible to connect in a fast, suitable, and happy way the separate things," as stated by Le Moigne (2007, p. 118, quoting Vico 1708).

In summary, this suggests considering a pluralistic perspective to look at "project" phenomena.

Non-paradigmatic nature of social sciences

The question "Has anyone found a paradigm out there?" has been raised by Bredillet (2010, p. 6) and is particularly relevant with regard to pluralistic perspective. Discussing paradigms in the social sciences, Dogan (2001) addresses the question: "Is scientific progress in the social sciences achieved mostly by steady accretion or mostly by abrupt jumps?"

Dogan (2001, p. 11023) then summarises Kuhn's viewpoint:

For Thomas Kuhn, who devised the concept "paradigm," there are no paradigmatic upheavals in the social sciences. For him the use of this term in these sciences is not justified. Three arguments can be advanced against its polysemic use or abuse. In contrast with the universal truth in the natural sciences, contextual diversity and social change are two important parameters in all social sciences. In political science, sociology, and economics, progress is achieved by cumulative knowledge, by the adding of successive layers of sediments. The third argument is the pattern of mutual ignorance among great social scientists. In the social sciences, theoretical and methodological disagreements are beneficial to the advance of knowledge.

Flyvbjerg (2001) suggests that social sciences should focus on what he describes as a "non-paradigmatic" phronetic social science. Schram (2004, pp. 432–33), commenting on Flyvbjerg's position, puts forward the use of "post-paradigmatic" science – "post" meaning carry on, but differently – emphasising "the aspiration to move beyond a situation where such a hegemonic approach is imposed on the discipline."

Science that matters and the theory-practice gap

The problem of "science that matters" (that is, science that makes an impact on society) and its relation to the theory–practice gap has been widely discussed (for example, Sandberg & Tsoukas 2011; Van de Ven & Johnson 2006). In project management, a critical studies stream following the Foucauldian perspective (Hodgson & Cicmil 2007), through the *Making Projects Critical* workshops, and a phronetic perspective stream with a focus on megaprojects (Flyvbjerg et al. 2012) have been developed. These studies consider a clear dichotomy between bottom-up social science (and related substantive/practical/value rationality) and top-down natural science, and related formal/theoretical/scientific rationality (Kondrat 1992, p. 237; Schram 2004, p. 420), which in turn leads to a critical evaluation of the relation between theory and practice (Blomquist et al. 2010, p. 10), and how to bridge the gap between these two.

The central argument of *this* article is that managers are rarely reduced to being theory-applying decision-makers and that managers only matter when there is uncertainty, with uncertainty being the defining characteristic of management practice. Therefore, uncertainty should have a more explicit place in management theory and practice in order to address the gap (Kraaijenbrink 2010, p. 2 and p. 15), and to address pluralistic contexts, involving "*multiple objectives, diffuse power and knowledge-based work*" (Denis et al. 2007, p. 179) such as project organizing and temporary-based organizations.



Aram & Salipante (2003) attempt to reconcile the debate between theory and practice by proposing that management scholars must adopt a style of reasoning that is characterized by high rigor and relevance. Such initiatives involve collaboration between actors from diverse disciplines to conduct problem-focussed research in a specific context, which crosses epistemological lines and philosophical traditions (Alvesson & Sandberg 2014).

Expanding the work done by the research network Rethinking Project Management, Winter et al. (2006, pp. 641–42), Bredillet (2013, pp. 66–68; 2015b, pp. 15–16), Van de Ven (2006, p. 805) with Kondrat (1992, p. 238), and Schön (1983, p. 49) suggest seven main possible directions in which project management theory in relation to practice needs to develop:

- 1. Theory *about* practice (knowledge *about* practice), or theory that helps us to understand practice, albeit from a particular perspective, which does not necessarily have immediate practical application;
- 2. Theory *for* practice (knowledge *for* practice), or concepts and approaches that do have practical application;
- 3. Theory *in* practice (knowledge *in* practice), or practitioners as trained technicians versus practitioners as reflective practitioners. This is essentially a reference to how practitioners learn their craft, and how they actually practice their craft using relevant theory from the published literature on project management;
- 4. Theory *from* practice, being bodies of knowledge and process-based standards that rely on covering laws and/or statistical generalizations ("most of ...") through to performance-based standards or actionable practice guides;
- 5. Knowledge from practice, reversing the classical perspective (knowledge for practice) and, beyond the above discussion about "knowledge and inquiry 'for' and 'about' and even 'in' practice," recognizing that "What has been missing from our collective conversation concerning practice knowledge is an empirical study of practice knowledge itself;"
- 6. Knowing in practice, or "our knowing is 'in' our action." Schön argues that the skilful practice shown by professionals does not consist of applying some a priori knowledge to a specific decision or action, but rather of a kind of knowing that is inherent in their action. As Feldman & Orlikowski (2011, p. 1243) put it: "These insights have led to an understanding of knowing in practice as the knowledgeability that is continually enacted through ongoing action. Such an understanding rejects the traditional dualism set up between knowledge that exists 'out there' (encoded in external objects, routines, or systems) and knowledge that exists 'in here' (embedded in human brains, bodies, or communities);" and
- 7. Theory *as* practice (knowing *as* practicing), or, in a given project, organizing pluralistic context from adaptive practice, doing the right things, and getting things done to questioning how we critically learn in a situation, develop reflexive praxis, and decide what is right. The logic of knowing in practice is fully realized through knowing as practicing, following recursive logic between "theorizing practice and practicing theory" and the fact that "theorizing practice is itself a practice" (Feldman & Orlikowski 2011, p. 1250).

With regard to project management, some authors have taken two directions proposing, explicitly or not, various perspectives: for example, "Making Project Critical" (Hodgson 2002; Cicmil & Hodgson 2006; Hodgson & Cicmil 2007; Cicmil et al. 2009), "Phronetic Research" (Flyvbjerg et al. 2003; Flyvbjerg 2004; Flyvbjerg et al. 2012), "future-perfect" (Pitsis et al. 2003), "multi-rationalities and cultures" (Van Marrewijk et al. 2008), "Project-as-Practice"



(Blomquist et al. 2010), and "PM Practice/Rethoric and Pragmatist" (Lalonde et al. 2012). A common characteristic of these perspectives is, to a certain extent depending on the authors, the acknowledgement of the concurrent and integrative advancement of knowledge in relation to empirical ground.

Moving a step further, a logical consequence of this dual objective is to recognize that the reflexive production and transfer of knowledge useful for the advancement of theory, technique and praxis involves a balanced and pluralistic view (Knorr-Cetina 1981b, p. 336; Tsoukas & Cummings 1997, p. 657), or "each form of knowledge being partial – a way of seeing is a way of not seeing" (Van de Ven & Johnson 2006, p. 808). From the above, we can posit that connecting and mediating theory and practice requests a balanced style of reasoning, epistemic script, and mode of inquiry (for example, Boxenbaum & Rouleau 2011, p. 277). We argue that a style of reasoning, epistemic script, and mode of inquiry embedding practical wisdom is appropriate to project situations. Indeed (Tsoukas & Cummings 1997, p. 665):

...practical wisdom (phronesis) which deals with both universals and particulars. More precisely, phronesis is knowing what is good for human beings in general as well as having the ability to apply such knowledge to particular situations.

Thus, studying projects and their management involves recognizing a pluralistic view for knowledge (co-)production and transfer. The mode of inquiry should be grounded on a pluralistic balanced style of reasoning enabling "kaleidoscopic" (Tsoukas & Cummings 1997, p. 657), holographic (Kondrat 1992, p. 242), or puzzle forms (Bruner 1962, p. 93) perspective and combining *theorizing AS practising*.

Scholars and practitioners

The links and the gaps between practice and theory(ies), and their relation to knowledge production and transfer, and to the rigour and relevance argument, is strongly anchored in the role dichotomy between scholars and managers/workers (Bredillet 2015, p. 47). "Scholarly work and managerial work differ, however, in the context, processes, and purposes of their practices" (Aram & Salipante 2003, p. 1900; Van de Ven & Johnson 2006, p. 806). In order to challenge the dominant mechanistic-cum-rationalistic assumptions, some authors suggest an alternative such as historical-cum-comparative thinking (Tsoukas & Cummings 1997, p. 673; Knorr-Cetina 1981, p. 336). Tsoukas & Cummings (1997, p. 657) state:

We argue that reconnecting organizational and management research with systems of thought other than those traditionally associated with the "discipline," and adopting a "kaleidoscopic" view of history, can enable researchers to think differently about key issues and inform future development.

The assumptions about the roles, behaviours, and expectations of the people, as framed by the classical class dichotomy, involved in knowledge creation and transfer, is at the centre of the theory–practice relevance and rigour debate. Kondrat (1992, p. 243) claims:

The roots of both science and practice are to be found in the everyday processes and achievements of human beings who seek to manage their world and to orient their action [praxis] in relation to others in that world.

While Van de Ven & Johnson (2006, p. 803) stipulate:

We agree with Hodgkinson et al. (2001) and Pettigrew (2001) that research needs to achieve the dual objectives of applied use and advancing fundamental understanding.



In order to address this burning question of rigour and relevance, some authors have pleaded for a kind of junction or integration between the "scholars–experts–researchers" and "managers/workers–practitioners–participants." These authors include social science practitioner Warry (1992, p. 160), engaged scholars Van de Ven & Johnson (2006, p. 803); objectivism–style reasoner Pouliot (2007, p. 360), "practitioners in the context of project–as–praxis" Blomquist et al. (2010, p. 13), practitioner–researcher Jarvis (1999), and researcher–practitioners Lalonde et al. (2012, note 8, p. 429). I suggest we need to go further in–depth to fully grasp the importance of moving to consider one single class of actors in project situations. Hacking (2002b, p. 10), while reflecting on classifications, posits that:

The human and the social sciences do not differ from natural ones primarily because they deal in what are called social constructions, or because they require "Verstehen" rather than explanation, prediction, and control. They differ because there is a dynamical interaction between the classifications developed in the social sciences, and the individuals or behaviour classified.

Hacking develops the idea of "interactive classifications" (2002) and "looping effects" (1995) about "how classifications affect us and how we create new classes anew" (2002, p. 12). As a consequence, moving from the two classes dichotomy of "scholars-experts-researchers" and "managers/workers-practitioners-participants" to a single class, "practitioners" (I suggest "praXitioner"), is all but neutral with regard to a pluralistic balanced style of reasoning (Hacking 2002, p. 3) and to go beyond the theory-practice gap.

Undeniably, "praXitioner" relates to praxis (practice) and phronesis (practical wisdom), and to what Stacey (2012) names the "reflexive practitioner," in contrast with what Schön (1983) calls the "reflective practitioner." Stacey (2012, p. 112) explains: "reflexive practices involve noticing and thinking about participation with others in the accomplishment of joint tasks [...]. Reflexivity is thinking about how we are thinking." (Bredillet et al., 2015, p. 13)

By way of conclusion: the value of studying cases

As written in the introduction, the use of case studies must resonate with both scholars and project practitioners. After the few considerations shared above, I can now offer a summary of thoughts about case studies from some major authors. I borrow the following mainly from two authors, Flyvbjerg (2011) and Thomas (2011). In doing so, I take the opportunity to offer a map of the case study landscape, and useful guidance for reflexive scholars and practitioners willing to embrace the science and art of studying cases.

What we mean by "case study"

Thomas does an in-depth review of research on case studies by leading authors. After discussing the definition offered by Simon (2009, p. 21) – "Case study is an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution, programme or system in a 'real life' context" – Thomas (2011, p. 512) highlights "that case study should not be seen as a method in and of itself. Rather, it is a design frame that may incorporate a number of methods."

Quoting Stake (2005, p. 443) – "case study is not a methodological choice but a choice of what is to be studied ... by whatever methods we choose to study the case" – Thomas (2011, p. 512) makes clear that "choice of method, then, does not define case study: analytical eclecticism is the key" and proposes that "a case study must comprise two elements: 1. A 'practical, historical unity,' which I shall call the subject of the case study; and 2. An analytical or theoretical frame, which I shall call the object of the study."



Taking account of this, the definition of case study that Thomas (2011, p. 513) adopts for the typology he develops is as follows:

Case studies are analyses of persons, events, decisions, periods, projects, policies, institutions, or other systems that are studied holistically by one or more methods. The case that is the subject of the inquiry, will be an instance of a class of phenomena that provides an analytical frame—an object—within which the study is conducted and which the case illuminates and explicates.

Overcoming five misunderstandings about case studies

Gerring (2004, p. 341) describes the well-known paradox of "the case study's wide use and low regard" and observes that the case study subsists in a "curious methodological limbo."

Flyvbjerg (2011, p. 302) explains, "the reason is that the method is poorly understood," and defines five main misunderstandings undermining the credibility and use of the case study method. He discusses them one by one, "and thereby clears the ground for the use of case study research in the social sciences that is based on understanding instead of misunderstanding." The following summarizes Flyvbjerg's five key points, contrasting the general misunderstanding and case study method understanding, with a response offered for each.

- General, theoretical knowledge is more valuable than concrete case knowledge.
 - However, predictive theories and universals cannot be found in the study of human affairs. Concrete case knowledge is therefore more valuable than the vain search for predictive theories and universals.
- One cannot generalize on the basis of an individual case; therefore, the case study cannot contribute to scientific development.
 - In contrast, one can often generalize on the basis of a single case, and the case study
 may be central to scientific development via generalization as supplement or alternative
 to other methods. But formal generalization is overvalued as a source of scientific
 development, whereas "the force of example" and transferability are underestimated.
- The case study is most useful for generating hypotheses, that is, in the first stage of a total research process, while other methods are more suitable for hypotheses testing and theory building.
 - Conversely, the case study is useful for both generating and testing hypotheses, but is not limited to these research activities alone.
- The case study contains a bias toward verification, that is, a tendency to confirm the researcher's
 preconceived notions.
 - In fact, the case study contains no greater bias toward verification of the researcher's
 preconceived notions than other methods of inquiry. On the contrary, experience
 indicates that the case study contains a greater bias toward falsification of
 preconceived notions than toward verification.
- It is often difficult to summarize and develop general propositions and theories on the basis of specific case studies.
 - It is correct that summarizing case studies is often difficult, especially around case
 process. It is less correct around case outcomes. The problems in summarizing case
 studies, however, are due more often to the properties of the reality studied than to the
 case study as a research method. Often it is not desirable to summarize and generalize
 case studies. Good studies should be read as narratives in their entirety.

Finding a way through studying cases: a typology

As said above, despite its popularity, studying case survives in a curious methodological limbo. Thomas (2011, p. 511) adds:



If "methodological limbo" exists it is not for lack of methodological discussion. The problem is perhaps that methodological discussion of case study has tended to focus on its epistemological status, its generalizing "power," or on various aspects of study construction. Less conspicuous, though, has been any synthesis of the discussion that might offer classificatory schemata for intending researchers.

Thomas (2011, pp. 515–18) further suggests a typology of case study around six main layers of criteria, summarized below.

- 1. Subject: "The subject of the study, which is the case itself" is a "practical, historical unity."
- 2. Object: "the analytical or theoretical frame [...] within which the case is viewed and which the case exemplifies."
- 3. Purpose: "The purpose is intimately connected with the object of the study. The understanding that is required the explanation that is needed will be related to the reason for doing the study, that is to say, the purpose."
- 4. Approach: "The different kinds of stance that may be taken about the object."
- 5. Methods: "After a decision about approach, there are choices to be made about the methods to be adopted. Will the study be entirely interpretative in orientation? Will it be an ethnography? Will it use a combination of methods, possibly incorporating experimental, survey, or cross-sectional elements? Will it involve documentary analysis? Given the methodological pluralism noted earlier the choices here are abundant. They will, in turn, lead to questions about the operational process of the study the means by which it is constructed and the means by which the object is understood and refracted through the subject."
- 6. Process: "case inquirers are making decisions about the operational processes of their studies. For this, they need first to return to their subjects and to the boundary decisions made at the outset. There has to be an examination of the nature of the choices that were made at that time about the parameters that delimit the subject of the study. These may fall around a number of loci: The case may be defined by one or more of a range of boundary considerations: person, time period, place, event, institution, or any of a range of singular phenomena that can be studied in their complexity. The first consideration, though, concerns an important distinction that has been raised by Stake (2005, p. 445) that will determine

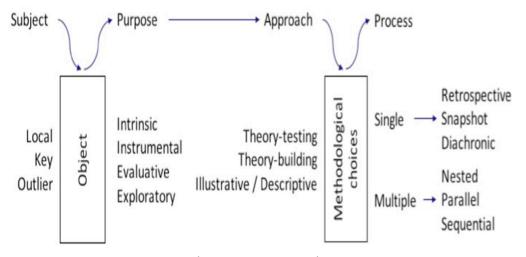


Figure 1 Typology of case study (Thomas 2011, p. 518)



the process of the case study, and [...] whether there is to be a comparative element to the study: Should it be single or multiple?"

The representation of the typology does not involve decisions, and choices are made in sequence during the research process design. Choices and decisions are made concurrently in considering the interrelations and reflexivity between criteria.

As Thomas (2011, pp. 511) states: "The typology reveals that there are numerous valid permutations of these dimensions and many trajectories, therefore, open to the case inquirer." Indeed, a typology supports a clear articulation and logic between the research question and purpose(s), the subject, the object, the choice of approach(es), the methodology(ies), and the choices and decisions about process. As Thomas (2011, p. 518) highlights: "It is useful to explore all of these considerations alongside thought about subject, object, theory, and method."

I hope this brief text will encourage scholars and project practitioners to develop practical wisdom around studying cases, and that they will find in here some useful thoughts, clues, and guidelines for further reflexive activities.

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About the author

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References

Alvesson, M. & Deetz, S. 2000, Doing critical management research, SAGE, London.

Alvesson, M. & Sandberg, J. 2013, 'Has management studies lost its way? Ideas for more imaginative and innovative research', *Journal of Management Studies*, vol. 30, no. 1, pp. 128–51. http://dx.doi.org/10.1111/j.1467-6486.2012.01070.x

Anderson, P.W. 1997, 'Some thoughts about distribution in economics', in W.B. Arthur, S.N. Durlauf & D.A. Lane (eds), *The economy as an evolving complex system II*, Addison-Wesley, Reading, Ma, pp. 565–67.



Andriani, P. & McKelvey, B. 2007, 'Beyond Gaussian averages: redirecting organization science toward extreme events and power laws', *Journal of International Business Studies*, vol. 38, no. 2, pp. 1212–30. http://dx.doi.org/10.1057/palgrave.jibs.8400324

Andriani, P. & McKelvey, B. 2009, 'From Gaussian to Paretian thinking: causes and implications of power laws in organizations', *Organization Science*, vol. 20, no. 6, pp. 1053–71. http://dx.doi.org/10.1287/orsc.1090.0481

Aram, J.D. & Salipante, P.F., Jr 2003, 'Bridging scholarship in management: epistemological reflections', *British Journal of Management*, vol. 14, no. 3, pp. 189–205. http://dx.doi.org/10.1111/1467-8551.00374

Aristotle 1926, *On rhetoric: a theory of civic discourse*, trans. J.H. Freese (ed.), viewed 28 March 2016 www.perseus.tufts.edu/hopper/text?doc=Aristot.+Rh.+1.1.1&redirect=true)

Ashby, W. 1958, 'Requisite variety and implications for control of complex systems', *Cybernetica*, vol. 1, no. 2, pp. 83–99.

Blomquist, T., Hällgren, M., Nilsson, A. & Söderholm, A. 2010, 'Project-as-practice: in search of project management research that matters', *Project Management Journal*, vol. 41, no. 1, pp. 5–16. http://dx.doi.org/10.1002/pmj.20141

Boisot, M. & McKelvey, B. 2010, 'Integrating modernist and postmodernist perspectives on organizations: a complexity science bridge', *Academy of Management Review*, vol. 35, no. 3, pp. 415–33. http://dx.doi.org/10.5465/AMR.2010.51142028

Boxenbaum, E. & Rouleau, L. 2011, 'New knowledge products as bricolage: metaphors and scripts in organizational theory', *Academy of Management Review*, vol. 36, no. 2, pp. 272–96. http://dx.doi.org/10.5465/AMR.2011.59330898

Bredillet, C.N. 2010, 'Blowing hot and cold on project management', *Project Management Journal*, vol. 41, no. 3, pp. 4–20. http://dx.doi.org/10.1002/pmj.20179

Bredillet, C.N. 2013, 'A discourse on the non-method', in N. Drouin, R. Müller & S. Sankaran (eds), *Novel approaches to organizational project management research: translational and transformational*, Advances on Organisation Studies, Copenhagen Business School, pp. 56–94.

Bredillet, C.N. 2015, 'Finding a way in Broceliande Forest: the magic domain of project management research', in B. Pasian (ed.), *Designs, methods and practices for research in project management*, Gower Publishing, Wey Court East, UK, pp. 43–55.

Bredillet, C.N., Tywoniak, S. & Dwivedula, R. 2015, 'Reconnecting theory and practice in pluralistic contexts: issues and Aristotelian considerations', *Project Management Journal*, vol. 46, no. 2, pp. 6–20. http://dx.doi.org/10.1002/pmj.21479

Bruner, J.S. 1962, On knowing: essays for the left hand, Atheneum, New York.

Cicmil, S. & Hodgson, D. 2006, 'Making projects critical: an introduction', in D. Hodgson & S. Cicmil (eds), *Making projects critical*, Management, Work and Organisations, Palgrave Macmillan, Basingstoke, New York, pp. 1–25.

Cicmil, S., Hodgson, D., Lindgren, M. & Packendorff, J. (eds) 2009, 'Project management behind the façade', *Ephemera: theory & politics in organization*, vol. 9, no. 2, pp. 78–194, viewed May 2009, http://www.ephemerajournal.org/sites/default/files/pdfs/9-2ephemera-may09.pdf

Czarniawska, B. 1997, 'A four times told tale: combining narrative and scientific knowledge in organization studies', *Organization*, vol. 4, no. 1, pp. 7–30. http://dx.doi.org/10.1177/135050849741002

Czarniawska, B. 1998, A narrative approach to organization studies, SAGE, Thousand Oaks, Ca.



de Vaus, D.A. 2001, Research design in social research, SAGE, Thousand Oaks, Ca.

Denis, J-L., Langley, A. & Rouleau, L. 2007, 'Strategizing in pluralistic contexts: rethinking theoretical frames, *Human Relations*, vol. 60, no. 1, pp. 179–215. http://dx.doi.org/10.1177/0018726707075288

Dogan, M. 2001, *Paradigms in the social sciences*, International Encyclopedia of the Social & Behavioral Sciences, pp. 11023–27, viewed 28 March 2016, http://dx.doi.org/10.1016/B0-08-043076-7/00782-8

Feldman, M.S. & Orlikowski, W.J. 2011, 'Theorizing practice and practicing theory', *Organization Science*, vol. 22, no. 5, pp. 1240–53. http://dx.doi.org/10.1287/orsc.1100.0612

Flyvbjerg, B. 2011, 'Case study', in N.K. Denzin & Y.S. Lincoln (eds), *The Sage handbook of qualitative research*, 4th edn, Thousand Oaks, Ca, pp. 301–16.

Flyvbjerg, B. 2001, *Making social science matter: why social inquiry fails and how it can succeed again*, trans S. Sampson, Cambridge University Press, Cambridge. http://dx.doi.org/10.1017/CBO9780511810503

Flyvbjerg, B. 2004, 'Phronetic planning research: theoretical and methodological reflections', *Planning Theory & Practices*, vol. 5, no. 3, pp. 283–306. http://dx.doi.org/10.1080/1464935042000250195

Flyvbjerg, B., Landman, T. & Schram, S.F. (eds) 2012, *Real social science: applied phronesis*, Cambridge University Press, Cambridge.

Flyvbjerg, B., Nils, B. & Rothengatter, W. 2003, *Megaprojects and risk: an anatomy of ambition*, Cambridge University Press. http://dx.doi.org/10.1017/CBO9781107050891

Gareis, R. 2005, Happy projects!, Manz, Vienna.

Gerring, J. 2004, 'What is a case study and what is it good for?', *The American Political Science Review*, vol. 98, no. 2, pp. 341–54. http://dx.doi.org/10.1017/S0003055404001182

Hacking, I. 2002, 'Inaugural lecture: Chair of Philosophy and History of Scientific Concepts at the Collège de France, 16 January 2001', *Economy and Society*, vol. 31, no. 1, pp. 1–14. http://dx.doi.org/10.1080/03085140120109222

Hodgkinson, G.P. (ed.) 2001, 'Facing the future: the nature and purpose of management research reassessed', *British Journal of Management*, vol. 12 (special issue), pp. S1–S80.

Hodgson, D. 2002, 'Disciplining the professional: the case of project management', *Journal of Management Studies*, vol. 39, no. 6, pp. 803–21. http://dx.doi.org/10.1111/1467-6486.00312

Hodgson, D. & Cicmil, S. 2007, "The politics of standards in modern management: making "the project" a reality', *Journal of Management Studies*, vol. 44, no. 3, pp. 431–50. http://dx.doi.org/10.1111/j.1467-6486.2007.00680.x

Keynes, J.M. 1937, 'The general theory of employment', Quarterly Journal of Economics, vol. 51, no. 2, pp. 209–23. http://dx.doi.org/10.2307/1882087

Knight, F.H. 1921, Risk, Uncertainty and Profit, Houghton Mifflin, Boston, Ma.

Knorr-Cetina, K. 1981, 'Social and scientific method or what do we make of the distinction between the natural and the social sciences?', *Philosophy of the Social Sciences*, vol. 11, no. 3, pp. 335–59. http://dx.doi.org/10.1177/004839318101100304

Kondrat, M.E. 1992, 'Reclaiming the practical: formal and substantive rationality in social work practice', *Social Service Review*, vol. 66, no. 2, pp. 237–55. http://dx.doi.org/10.1086/603912



Kraaijenbrink, J. 2010, 'Rigor and relevance under uncertainty: toward frameworks as theories *for* practice', Working Paper, viewed 14 June 2012, <u>www.philosophyofbusiness.org/wordpress/wp-content/uploads/downloads/2011/05/Rigor-and-relevance-under-uncertainty-Kraaijenbrink-20-12-2010.pdf</u>

Lalonde, P-L., Bourgault, M. & Findeli, A. 2012, 'An empirical investigation of the project situation: PM practice as an inquiry process', *International Journal of Project Management*, vol. 30, no. 4, pp. 418–431. http://dx.doi.org/10.1016/j.ijproman.2011.09.005

Le Moigne, J-L. 2007, 'The intelligence of complexity: do the ethical aims of research and intervention in education and training not lead us to a "new discourse on the study method of our time"?', *Educational Sciences Journal*, vol. 4, pp. 115–26.

Lyotard, J-F. 1984, The postmodern condition: a report on knowledge, Manchester University Press, Manchester.

MacIntyre, A. 1985, After virtue, 2nd edn, Duckworth, London.

Maravelias, C. 2012, 'Richard SENNETT (2012). Together: the rituals, pleasures and politics of cooperation. Yale University Press', *M@n@gement*, vol. 15, no. 3/2012, pp. 344–49. http://dx.doi.org/10.3917/mana.153.0344

McKelvey, B. & Boisot, M. 2009, 'Redefining strategic foresight: "fast" and "far" sight via complexity science', in L. Costanzo & B. MacKay (eds), *Handbook of research on strategy and foresight*, Elgar, Cheltenham, UK, pp. 15–47. http://dx.doi.org/10.4337/9781848447271.00007

Merton, R.K. 1949, Social theory and social structure, Free Press, New York.

Morris, P.W.G., & Jamieson, H.A. 2004, *Translating corporate strategy into project strategy: achieving corporate strategy through project management*, Project Management Institute, Newtown Square, Pa.

Morris, P.W.G & Geraldi, J. 2011, 'Managing the institutional context for projects', *Proceedings of the IRNOP 2011 Conference*, Montréal. http://dx.doi.org/10.1002/pmj.20271

Patton, E. & Appelbaum, S.H. 2003, 'The case for case studies in management research', *Management Research News*, vol. 26, no. 5, pp. 60–71. http://dx.doi.org/10.1108/01409170310783484

Pitsis, T.S., Clegg, S.R., Marosszeky, M. & Thekla, R-P. 2003, 'Constructing the Olympic dream: a future perfect strategy of project management', *Organization Science*, vol. 14, no. 5, pp. 574–90. http://dx.doi.org/10.1287/orsc.14.5.574.16762

Poggi, G. 1965, 'A main theme of contemporary sociological analysis: its achievements and limitations', *British Journal of Sociology*, vol. 16, no. 4, pp. 283–94. http://dx.doi.org/10.2307/589157

Pouliot, V. 2007, "Sobjectivism": toward a constructivist methodology', *International Studies Quarterly*, vol. 51, no. 2, pp. 359–84. http://dx.doi.org/10.1111/j.1468-2478.2007.00455.x

Rothbard, M.N. 1997, 'Praxeology as the method of the social sciences', in M. Natanson (ed.), *Phenomenology and the social sciences*, Northwestern University Press, Evanston, II, pp. 31–61.

Sandberg, J. & Tsoukas, H. 2011, 'Grasping the logic of practice: theorizing through practical rationality', *Academy of Management Review*, vol. 36, no. 2, pp. 338–60. http://dx.doi.org/10.5465/amr.2009.0183 and http://dx.doi.org/10.5465/AMR.2011.59330942

Sanderson, J. 2012, 'Risk, uncertainty and governance in megaprojects: a critical discussion of alternative explanations', *International Journal of Project Management*, vol. 30, no. 4, pp. 432–43. http://dx.doi.org/10.1016/j.ijproman.2011.11.002

Say, J-B. 1964, A treatise on political economy, trans. C.C. Biddle, Augustus Kelley, New York.



Schön, D.A. 1983, The reflective practitioner: how professionals think in action, Basic Books, New York.

Schram, S.F. 2004, 'Beyond paradigm: resisting the assimilation of phronetic social science', *Politics & Society*, vol. 32, no. 3, pp. 417–33.

Schütz, A. 1964, Collected papers II: studies in social theory, A. Brodersen (ed.), Nijhoff, The Hague.

Sennett, R. 2012, Together: the rituals, pleasures and politics of cooperation, Allen Lane, London.

Simons, H. 2009, Case study research in practice, SAGE, London.

Stacey, R.D. 2012, Tools and techniques of leadership and management: meeting the challenge of complexity, Routledge, Milton Park, UK.

Stake, R.E. 2005, 'Qualitative case studies', in N.K. Denzin & Y.S. Lincoln (eds), *The SAGE handbook of qualitative research*, 3rd edn, SAGE, Thousand Oaks, Ca, pp. 443–66.

Thomas, G. 2011, 'A typology for the case study in social science following a review of definition, discourse and structure', *Qualitative Inquiry*, vol. 17, no. 6, pp. 511–21. http://dx.doi.org/10.1177/1077800411409884

Toulmin, S. 1990, Cosmopolis: the hidden agenda of modernity, The University of Chicago Press, Chicago, II.

Tsoukas, H. & Cummings, S. 1997, 'Marginalization and recovery: the emergence of Aristotelian themes in organization studies', *Organization Studies*, vol. 18, no. 4, pp. 655–83. http://dx.doi.org/10.1177/017084069701800405

Tsoukas, H. & Hatch M.J. 2001, 'Complex thinking, complex practice: the case for a narrative approach to organizational complexity', *Human Relations*, vol. 54, no. 8, pp. 979–1013. http://dx.doi.org/10.1177/0018726701548001

Van de Ven, A.H. & Johnson, P.E. 2006, 'Knowledge for theory and practice', *Academy of Management Review*, vol. 31, no. 4, pp. 802–21. http://dx.doi.org/10.5465/AMR.2006.22527385

Van Marrewijk, A.H.S., Clegg, T.P. & Veenswijk, M. 2008, 'Managing public-private megaprojects: paradoxes, complexity and project design', *International Journal of Project Management*, vol. 26, pp. 591–600.

Vico, G.B. 1981, *De nostri temporis studiorum ratione – La méthode des études de notre temps* (The method of studies in our time), trans. A. Pons (original text written 1708), Grasset, Paris.

Von Glaserfeld, E. 1984, 'An introduction to radical constructivism', in P. Watzlawick (ed.), *The invented reality*, Norton, New York.

Warry, W. 1992, 'The eleventh thesis: applied anthropology as praxis', *Human Organization*, vol. 51, no. 2, pp. 155–63.

Weick, K.E. 1979, The social psychology of organizing, 2nd edn, Addison-Wesley, Reading, Ma.

Winter, M., Smith, C., Morris, P.W.G. & Cicmil, S. 2006, 'Directions for future research in project management: the main findings of a UK government-funded research network', *International Journal of Project Management*, vol. 24, no. 8, pp. 638–49.