Living With the Unknown Unknown: Uncertainty in Projects

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ABSTRACT

In this article, I explore how the traditional understanding of uncertainty in project management can be revised in light of the philosophical input from Kierkegaard, Dewey, and Wittgenstein. Planning models of projects tend to view uncertainty as a threat to successful project implementation. An alternative approach can emerge from a philosophical investigation of the potentials embedded in surprising turns of events. It is possible to retain a planning orientation to projects while also embracing uncertainty as a potentially energizing dimension of projects—one that can activate positive personal and collective drama in project management.

KEYWORDS: epistemology; uncertainty; philosophy; project management

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INTRODUCTION

The main aim of this article is to identify and explore the positive dimensions of uncertainty in project management. A common approach to uncertainty, both in project management practice and research, has been to see it as a threat and as something that should, if possible, be neutralized and reduced. This article draws on philosophical ideas about uncertainty to highlight its constructive potential in projects and suggests ways in which project management can embrace rather than feel threatened by the basic fact that the future is unknown in various unknown ways.

"The Fly and the Fly-Bottle"

Ludwig Wittgenstein famously likened philosophy to the activity of showing "the fly the way out of the fly-bottle" (Wittgenstein, 1958/2009, paragraph 81); his idea was that the fly can see the world around it, yet cannot access it. Rather, it keeps on buzzing about and continuously hits the walls of its glass prison, not understanding the nature of the barriers to its own existence. The senses appear to reveal so much, yet they reveal nothing at all; they tell part of the truth of the real world but not our relation to it. The senses do not reveal the way out of the prison of the senses. They do not show the paths to understanding and knowledge. In this article, I explore the idea that project management theory and practice can similarly be a prisoner within a fly-bottle in its relation to uncertainty. A typical planning approach to projects identifies uncertainty as a threat to successful execution and welcomes any move to reduce it. In some contexts, as in the projects in safety-critical industries, it is understandable that one aims for uncertainty reduction (Saunders, Gale, & Sherry, 2015), whereas in others, uncertainty can open up new and exciting possibilities. When we see projects as human dramas, the lack of certainty adds to the thrill of contributing to the processes and releases energies other than the ones associated with careful and systematic planning in an ordered environment (Carlsen, Clegg, & Gjersvik, 2012).

The frustrated philosopher who is seeking release from uncertainty and wants to discover a stable foundation for knowledge is, in Wittgenstein's eyes, similar to the fly trapped in the bottle—so close to the truth, yet separated from it by glass walls. This philosopher needs therapy, and Wittgenstein is there to offer it—in the shape of an invitation to reflect on the relation between language and reality, meaning, and practice. Once we understand the workings of our concepts, and how their meanings are inseparable from their uses in everyday settings, anxiety over the lack of certainty disappears. The fly can leave the fly-bottle, and appreciate the richness of the world outside it.

Uncertainty in Project Management: The Unknown Unknown

Studies and discussions of uncertainty are prevalent in the project management literature (see, for example, De Meyer, Loch, & Pich, 2002; Ward

& Chapman, 2003; Olsson, 2006; Loch, De Meyer, & Pich, 2006; Perminova, Gustafsson, & Wikstrom, 2008; Cleden, 2009; Meredith & Mantel, 2010). The dominant perspective in these contributions is to find ways to reduce and minimize uncertainty. Turner and Cochrane (1993) provided an early recognition of the challenge of uncertainty in projects. The so-called agile approaches to project management (Moran, 2015) aim to be more open to change and surprising turns of events, demanding a high degree of stakeholder flexibility and involvement. The classical project management model, as described in *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)* – Fifth Edition (Project Management Institute, 2013) and elsewhere, remains uncomfortable with uncertainty and identifies it as a threat to the project, since it undermines the desired flow of the five-step procedure of initiating, planning, executing, monitoring, and terminating the project. The literature distinguishes between risk (known unknowns) and uncertainty (unknown unknowns), where both pose a challenge to project implementation, but the latter in a more dramatic sense, throwing the doubly unknown into the project world (Lechler, Edington, & Gao, 2012). The planning model sees any initiative to reduce or neutralize uncertainty to be positive because it increases the likelihood that the project will go according to plan.

In adopting this stance toward uncertainty, project management cuts itself off from the positive and energizing aspects of living with the unknown unknown, and from identifying the opportunities of heading into the future being open to surprising turns of events, not knowing in advance how things will unfold. The best possible overall outcome may not be that the project goes according to plan, because at any point there may occur surprising opportunities that are even better than the ones envisaged during the initiation phase. There has been considerable criticism of the classical model in the project management research but the resistance to uncertainty remains. The fly continues to hit the glass walls of its own prison, even though the escape route is well within reach.

One significant way that project management can benefit from embracing uncertainty is making activities attractive and meaningful for potential and actual project participants. Carlsen (2008, p. 58) explored how exposure to trials, risks, and uncertainties can become the input to "positive dramas as enacted self-adventures, dynamic structures of meaning and emotional engagement that mediate the formation of individual and collective life stories." We can see uncertainty as an integral part of the human drama that is idea work and innovative involvement in projects. Encountering the unknown unknown in projects can create energy and engagement and pave the way for personal and collective growth. Carlsen et al. (2012) have identified concrete ways in which drama can be activated in projects; I will return to their findings in the latter part of the article, after a philosophical account of the role of uncertainty in human endeavors.

The Role of Uncertainty in Human Endeavors

Wittgenstein's suggestion that philosophy should seek release from foundational ambitions regarding human inquiry also received the attention of the contemporary philosophers of science. Karl Popper dismissed it outright as a misconception of what goes on in science: "Wittgenstein very fittingly compares a certain type of philosopher with a fly in a bottle, going on and on, buzzing about. And he says it is the task of his philosophy to show the fly the way out of the bottle. But I think it is Wittgenstein himself who is in the bottle and never finds his way out of it; and I certainly don't think he has shown anybody else the way out." (Popper, 1971) The dismissal is a sign that Popper is committed to a foundational attitude toward science and learning, one in which the accumulation of knowledge and the gradual removal of uncertainty is the way forward.

Uncertainty has caught the attention of philosophers from a range of traditions. The Danish philosopher, Søren Kierkegaard (1844/1980), suggested that uncertainty is a source of creativity rather than a hindrance to it. He views anxiety as a response to human freedom and to the dizzying realization that the self has opportunities to develop and grow out of the status quo. Uncertainty can trigger this both frightening and potent insight. The pragmatist philosopher John Dewey (1916/1960, 1939) develops it further by emphasizing uncertainty as an integral part of human exploration. Dewey criticizes the traditional epistemology of empiricism, which understands the human subject as a passive receiver of more or less reliable sense data, rather than as an active and engaged seeker of knowledge whose intentions affect the outcomes. The planning approach to projects appears to have adopted the empiricist notion that uncertainty negatively affects human endeavors to understand the world. I suggest that Dewey's arguments against the traditional model are also relevant in the context of projects and that they offer insights that can be utilized to develop a more fruitful attitude to uncertainty in projects. The final source of philosophical input that I will turn to is that of Wittgenstein's writings on certainty (1972), in which he addresses the concerns raised by G. E. Moore (1939) and other epistemologists regarding the lack of proof of the claims we take to be true about the world. Even this contribution points to a more relaxed and open attitude to the threat posed by uncertainty. The philosophical sources I draw on in this article offer overlapping suggestions regarding how uncertainty can power human exploration, rather than stand in its way; as such, they also provide project management practice and research with ideas to generate a shift in the attitude toward the unknown unknown.

The discussion of how project management deals with uncertainty belongs under the research heading of "what goes on in projects" (Lindkvist & Söderlund, 2002), since it focuses on activities and practices in projects and the assumptions about knowledge that are embedded in them. Both in the research literature and concrete project settings, uncertainty often has the status of being an unwanted entity that reduces the chances of reaching the defined project goals, thus generating anxiety and despair among the members of the project team. The emotional aspects—its thrills and pains—of project work is also a research field in the ascendancy (Lindgren, Packendorff, & Sergi, 2014).

The negative connotations regarding uncertainty stem from a rationalistic account of the project process, in which the basic assumption is that the successful planning and execution of a project rest on a high degree of certainty about goals, resources, methods, and other factors that can affect the project life cycle. Without certainty, the project manager and his or her team members are in the dark about the purpose and direction of their activities. The planning-oriented project literature views reduction of uncertainty as an integral part of a rational and goal-oriented project process. The lower the amount of uncertainty, the higher the chance of realizing the project ambitions. With an increase in knowledge and a corresponding reduction of uncertainty come clarity and light to the project.

The dominant discourse of project management focuses on the planning and controlling for the successful implementation of unique and exceptional tasks (Lindgren et al., 2014, p. 1385). Each project is construed to have a life cycle that passes from initiation, through development and planning to implementation, execution, and monitoring, before the termination and closing of the project. The underlying assumption of this understanding of the project life cycle is that the success of the project depends upon the careful and concise definition of operational goals and specification of activities, preparing for smooth implementation by the project members (Lindkvist & Söderlund, 2002. It is within this framework that uncertainty is an unwelcome feature of the project's circumstances.

Uncertainty can be a dimension of a project in different guises. Lechler et al. (2012) identifies six categories of uncertainty in projects: contextual turbulence, stakeholder uncertainty, technological uncertainty, organizational uncertainty, project uncertainty, and malpractice. Their common feature is that they introduce elements into the project work, which are impossible to fully take into account in advance, as part of the plan. They are the surprises—the unforeseen events that force project managers and members of the project team to reconsider and reschedule.

Within the project literature, the planning paradigm has come under criticism for not mirroring sufficiently the action orientation of concrete projects (Lundin & Söderholm, 1995; Lindkvist & Söderlund, 2002). Contextual uncertainty turns projects into much more open processes, where surprises occur and perspectives change during the project life cycles (Christensen & Kreiner, 1991). An action approach to projects has the potential to accommodate uncertainty in a more constructive way than the planning model, by opening up for an understanding where unexpected events can also be opportunities rather than threats to project implementation. The approach may retain the five-step assumption, but loosen it up and view the project processes in a more flexible manner. Uncertainty creates new possibilities, ones that may take the people involved in the projects to new levels of insight and achievement. Action orientation in projects can be more dynamic than the classical orientation and lead to a more effective identification of the possibilities that lie in the unknown unknowns.

Lechler et al. (2012) have also challenged the prevailing notion in classical project management that uncertainty is always an enemy. Uncertainty and unforeseeable project situations do not necessarily lead to a negative consequence. A project manager who automatically seeks to reduce possible sources of uncertainty may inadvertently also close off and neglect business opportunities. Uncertainty can release new possibilities, and loyalty to the project plan and resistance to change may block their implementation:

> Once a situation of uncertainty is identified, opportunities should be created or discovered leading to an increased value proposition for the project and the enterprise. The discovery and development of opportunities is not an obvious process. It requires creativity and the analysis of potential solutions beyond the project's constraints. This cannot be achieved by following the classic risk management technique of simply minimizing variation from the baseline. (p. 67)

The suggestion, then, is that a slackening of project discipline may be called for in order to reap the benefits and opportunities created by uncertainty.

Despite the misgivings within project management research about the five-step planning conception of projects, the reluctance to see uncertainty as anything but a threat appears to have survived in project settings. Researchers have called for a shift in attention from risk management to opportunity management (Olsson, 2007) and from a focus on probability to an emphasis on possibility (Pender, 2001), but the traditional risk management approach for projects, as presented in the *PMBOK® Guide*, remains more or less unaffected by these contributions. In the remainder of this article, we will point to philosophical sources that can strengthen the efforts to develop a broader understanding of uncertainty in projects.

Developing a Broader Understanding of Uncertainty in Projects

We can connect project management's uneasy relationship with uncertainty to

the anxiety that can occur when individuals contemplate the possibility of surprises. Anxiety is another concept that evokes negative connotations because it is typically associated with individual suffering and powerlessness. Søren Kierkegaard, however, describes anxiety as an experience that can power creativity and lift the individual out of passivity and despair. In *The Concept of Anxiety* (1844/1980), Kierkgaard presents anxiety as the dizzying effect of freedom and the experience of paralyzing possibility. The fly realizes that there is a world outside the fly-bottle; it can react to that insight by becoming paralyzed within the bottle, or by taking flight from the glass prison and engaging more directly with the world.

The existential psychologist Rollo May (1950) further explored the challenge of taking Kierkegaard's ideas concerning anxiety into practical settings, where they make a difference in how we actually live. He emphasizes how a shift in one's attitude toward uncertainty and surprises will indicate a break with past scripts and patterns of behavior:

> Now creating, actualizing one's possibilities, always involves negative as well as positive aspects. It always involves destroying the status quo, destroying old patterns within oneself, progressively destroying what one has clung to from childhood on, and creating new and original forms and ways of living. If one does not do this, one is refusing to grow, refusing to avail himself of his possibilities; one is shirking his responsibility to himself. (May, 1950, p. 39)

Applied to a project setting, we can similarly acknowledge that a move away from the classical planning model of understanding projects, to an action-oriented one in which uncertainty is also seen as a source of possibility, requires destruction of old patterns of thinking and doing. Like any kind of growth, it is bound to involve some form of pain in letting go of integral dimensions of the old self.

Positive connotations regarding uncertainty are present in pragmatist philosophy, as developed by Charles Sanders Pierce (1877), William James (1907/1981), and John Dewey (1916; 1939) in the late nineteenth century, and revitalized by Richard Rorty (1979; 1982) and others during the last decades. The pragmatist philosophers call for an acceptance of uncertainty as a dimension of any human endeavor to understand reality, rather than a hindrance to that process. They claim that we should embrace uncertainty in tandem with fallibility as a precondition for exploring the world and finding out new things about it. In doing so, they reject attempts to create a permanent and stable epistemological foundation for human endeavors. As the pragmatists see it, knowledge and understanding are always situated in particular contexts, where we make assumptions that may turn out to be false. Applied to projects, this means that we should accept uncertainty as an integral part of the working conditions, and that project managers and team members should learn to become energized rather than frustrated by it.

Pragmatists are skeptical about any philosophical quest to establish a secure foundation for knowledge and learning, transcending uncertainty, since they see human inquiry as a fallible enterprise. Our endeavors to understand the world do not start and finish; they are continuous processes of revision where knowledge is never immutable, but fluid and context dependent (Nash, p. 254). In the epistemic tradition of David Hume (1740/1976), uncertainty is a deficiency and problem, something one should attempt to reduce or eliminate. The planning model of project management belongs to this tradition, and keeps alive the assumption that the reduction of uncertainty is always desirable. The pragmatic approach, on the other hand, embraces uncertainty as a prerequisite for understanding reality, rather than rejecting it as an obstacle to it.

Linking the Planning and Pragmatist Approaches to Uncertainty: The Five Points

In his 1916 essay "The Need for a Recovery of Philosophy," John Dewey identifies five concrete ways of contrasting a foundationalist and pragmatist approach to knowledge and uncertainty. Nash (2003) explored these five points to establish a link between the pragmatist's outlook and Knight's understanding of uncertainty; I suggest that the five differences can also clarify what distinguishes a planning approach to uncertainty in project from a pragmatist one.

1. Knowledge as intention and reality

Dewey rejects the empiricist assumption that human knowledge develops through passive reception of external stimuli, and instead claims that we actively interpret the world with the aim of realizing future intentions: "In the orthodox view, experience is regarded primarily as a knowledge-affair. But to eyes not looking through ancient spectacles, it assuredly appears as an affair of the intercourse of a living being with its physical and social environment." (Dewey, 1916, p. 7) What we seek out and notice when we explore the world will depend on our interests, desires, and intentions. Uncertainty is a feature both on the side of who we are as knowledge seekers, and on the side of what the world contributes to our understanding. In pragmatism, intention and empirical reality become fused (Nash, p. 254), and in contrast to what we can see in the project planning approach, the ensuing uncertainty is primarily associated with possibility and hope rather than threats.

2. Context dependency of knowledge

The pragmatist outlook also contrasts with the dualist assumptions in both Cartesian metaphysics and British empiricism. These philosophical traditions define a dualism between mind and body, and between knowledge and experience. Since we cannot trust the body's sense perceptions and the mind's processing of those perceptions, we are doubly exposed to uncertainty, leading to a situation where "knowledge is a somewhat disparate collection of possibly faulty perceptions" (Nash, p. 256). Dewey challenges this outlook,

and claims that the mind–body distinction is irrelevant to human endeavors to understand and seek knowledge, and an example of the pseudo-problems preoccupying philosophy. "According to tradition experience is (at least primarily) a psychical thing, infected throughout by "subjectivity" What experience suggests about itself is a genuinely objective world which enters into the actions and sufferings of men and undergoes modifications through their responses." (Dewey, 1916, p. 7) On this view, knowledge is genuinely context dependent, as it hinges on the interests and orientations of the persons seeking to understand more of reality. We are not passively receiving signals from an outer world but interact with reality in ways that can expand our understanding of it. A pragmatist perspective on projects will similarly identify the active and engaged aspects of project work, and distance itself from the idea that our knowledge is somehow infected by uncertainty due to the unreliability of body and mind.

3. Future as the revelation of intention

A planning approach to projects seeks to make predictions about future events as precise as possible, and looks to the past for guidance regarding the shape of things to come. Uncertainty about what has happened previously is a cause for concern in this mindset because it gives us limited material with which to make predictions. From the pragmatist perspective outlined by Dewey, human intention can significantly affect future outcomes and make ideas become real, since "experience in its vital form is experimental, an effort to change the given; it is characterized by projection, by reaching forward into the unknown; connection with a future is its salient trait." (Dewey, 1916, p. 14) This approach is essentially future oriented, and more so than the traditional approach, although it also keeps an eye on historical events:

> Imaginative recovery of the bygone is indispensable to successful invasion of the future, but its status is that of an instrument. To ignore its import is the sign of an undisciplined agent; but to isolate the past, dwelling upon it for its own sake and giving it the eulogistic name of knowledge, is to substitute the reminiscence of old-age for effective intelligence. (Dewey, 1916, p. 14)

In line with the pragmatist way of thinking, people who are involved in projects should not despair over the lack of patterns and structures they can detect in the past as material for guiding principles for the future. Instead, they should try to adopt the rather more optimistic attitude that humanity has the capacity to successfully explore the world and intentionally make beneficial changes to it.

4. Uncertainty and disentanglement

The empirical tradition to which the planning model of projects belongs is committed to what Dewey calls 'particularism,' the idea that we can separate experiences from each other into atomic entities. According to this view, experiences are a series of discrete and separable perceptions that can also be disentangled from the observer (Nash, p. 257). The alternative pragmatist view is that knowledge is created where intention and reality meet. The connections and overlaps between experiences are what matter, not their separations. The enterprise of insolating individual experiences is overtly reductionist on this view, since it fails to acknowledge the complexities and richness of our encounters with aspects of reality. Experience is interaction and "is temporally and spatially more extensive and more internally complex than a single thing like a stone, or a single quality like red. For no living thing could survive, save by sheer accident, if its experiences had no more reach, scope and content, than the traditional particularistic empiricism provided for." (Dewey, 1939, p. 544)

5. Experience and intelligence

The final contrast Dewey outlines between the traditional approach to experience and knowledge and the pragmatist one, has to do with the apparent tension between experience and thought. The assumption he criticizes is the assumption that reduces experiences to be the material for thinking and intelligent analysis. We have first passively received the stimuli and can now engage in the rational processing. This view again downplays the active and engaged element of human inquiry, and the connectedness between the human faculties: "In the traditional notion, experience and thought are antithetical terms. Inference, so far as it is other than a revival of what has been given in the past, goes beyond experience; hence it is either invalid, or else a measure of desperation by which, using experience as a springboard, we jump out to a world of stable things and other selves. But experience, taken free of the restrictions imposed by the older concept, is full of inference. There is, apparently, no conscious experience without inference; reflection is native and constant." (Dewey 1916, p. 8)

A core assumption in the thinking of Dewey and other pragmatists is that a decision maker is rarely indifferent to the situation. He or she is not an impartial observer of the situation, but intimately and intentionally involved in it. This makes a difference in how we should view uncertainty, as it points to the need to become comfortable with the unknown unknown as a constant dimension of reality. In order to engage actively and fruitfully with the world, in projects and other settings, we should tackle uncertainty head on and identify the possibilities it offers rather than let it paralyze us.

Skepticism: The Philosophical Challenge

As we have seen, Dewey sought to liberate thinking and practice from a rather pessimistic epistemological perspective from which the chances of gaining reliable knowledge appeared to be slim. A related project preoccupied Ludwig Wittgenstein in his final years; he dedicated his time to addressing

the traditional philosophical challenge posed by skepticism: To what extent can we really know anything about the world? Are we ever in a position to claim that our assumptions and beliefs about some particular states of affairs are beyond doubt? In his book, *On Certainty* (1972), Wittgenstein enters traditional philosophical territory but explores it by enigmatically posing questions and laying out metaphors, rather than doing systematic philosophy.

On Certainty is a collection of provisional notes and aphorisms, written down by Ludwig Wittgenstein in the last year and a half of his life. The book has been interpreted as the author's reluctant acceptance of philosophy's legitimacy as an enterprise (Grayling, 2001). In previous works, Wittgenstein had reduced philosophy to be about clarifying the meaning of words and concepts—an activity that could bring peace to thinkers who had initially thought that they were dealing with deep and profound questions, but who were really just entangled in semantical confusion. *On Certainty* constitutes a shift in perspective, since it addresses a classical philosophical problem, that of skepticism and knowledge. How can we justify our beliefs about reality? How can we meet the skeptical challenge that knowledge is uncertain and always open to doubt? Showing the fly the way out of the fly-bottle may require a more dedicated philosophical response than Wittgenstein originally thought. His attempts to deal with the questions regarding the foundations for knowledge also have relevance for how to view the role of unknown unknowns in projects, and the tension between the rationalistic and pragmatist perspectives on uncertainty.

Wittgenstein's point of departure is G. E. Moore's alleged refutation of skepticism. The English philosopher set out to demonstrate the existence of external objects, and believed he could do it:

> How? By holding up my two hands, and saying, as I make a certain gesture with the right hand, 'Here is one hand,' and adding, as I make a certain gesture with the left, 'and here is another' (Moore, 1939).

Moore considers the hand experiment to be a demonstration that external objects exist, but not that we can have reliable knowledge about external objects, which is a claim that would need another kind of proof. Wittgenstein criticizes Moore for giving an inadequate response to skepticism about the existence of the external world:

> When Moore says he knows such and such, he is really enumerating a lot of empirical propositions which we affirm without special testing; propositions, that is, which have a peculiar logical role in the system of our empirical propositions (Wittgenstein, 1972, paragraph 136).

Wittgenstein proceeds to draw a distinction between propositions, which we consider fallible and reasonable subjects of doubt and propositions we take for granted, since they constitute "our frame of reference." (1972, paragraph 88) When we seek evidence for the latter, as Moore and others do, we fail to adequately distinguish between testable empirical propositions and the propositions that we take for granted in order to do the testing.

Wittgenstein addresses the duality of propositions and its significance for doubt and skepticism in a range of paragraphs:

> 94. I did not get my picture of the world by satisfying myself of its correctness; nor do I have it because I am satisfied of its correctness. No; it is the inherited background against which I distinguish between true and false.
>
> 105. All testing, all confirmation and disconfirmation of a hypothesis takes place already within a system . . . The system is not so much the point of departure, as the element in which our arguments have their life.
>
> 162. I have a world picture. Is it true or false? Above all, it is the substratum of all my enquiring and asserting.
>
> 341. The questions that we raise and our doubts depend on the fact that some propositions are exempt from doubt, are as it were like hinges upon which those turn.

With these, and similar expressions, Wittgenstein attempts to establish an alternative to the foundational thinking of empiricism and rationalism, one that reduces the unease associated with uncertainty and doubt. In line with Dewey's pragmatist perspective, he proposes a logic of exploration and knowledge that neutralizes the initial misgivings of living with the unknown unknown.

One of the most powerful metaphors in *On Certainty* is one in which Wittgenstein likens propositions in language and the extent to which we can doubt their validity to a river running through and being supported by a riverbed:

> And the bank of the river consists partly of hard rock, subject to no alteration or only to an imperceptible one, partly of sand, which now in one place now in another gets washed away, or deposited. (1972, paragraph 99)

The flow of the water, stones, and sand depends on the firmness of the riverbed, and similarly the propositions we doubt, test, and are uncertain about depend on some propositions that are at least temporarily stable and exempt from doubt. The status of the propositions may shift. One of the candidates he brought forward as exempt from doubt was that no man has ever set foot on the moon (1972, paragraph 106). When Wittgenstein wrote it just before his death in 1951, this proposition was part of the firm riverbed, as an element in a frame of reference making inquiry and testing of other proposition possible. That has changed since then, and new propositions have taken its place in the framework for distinguishing between true and false propositions about the state of the world.

Final Thoughts on Uncertainty

The philosophical approaches to uncertainty that can be found in the thinking

Types of Drama	What is at Stake	How it is Activated
The Battle	To compete, to dominate, and win	By identification of worthy enemies and battles/competitions
The Mission	To do good, to convert nonbelievers	By identification of worthy causes and uniqueness in ideology
The Mystery	To solve puzzles and explore new disciplinary/scientific ground	By identification of worthy puzzles or mystery
The Other	To enable positive personal development in other individuals	By assigned role and/or by identification of needing individuals
The Treasure Hunt	To find and seize valuable resources	By identification of resource prospects (and/or needs)
The Cathedral	To design/build constructions of great symbolical and historical significance	A combination of impact, newsworthiness, technological challenges, and lasting legacy

Table 1: The six types of human drama in idea and project work.

of Kierkegaard, the pragmatism represented by Dewey and Wittgenstein's alternative epistemology offer openings for project management research and practice to become more comfortable with uncertainty. The planning model of projects appears to assume that the unknown unknown is always a threat to projects and as such fails to identify the rich possibilities that can lie in the occurrences of surprises and unforeseen events. In this article, I have identified philosophical resources that can be useful in attempts to generate shifts in the ways in which project management views uncertainty. Inspired by the suggestions in Kierkegaard's thinking on despair and anxiety, we can become more aware of the energizing aspects of uncertainty and view them as a push toward a rethinking of personal and common attitudes toward the unknown dimensions of existence. It is likely that uncertainty can power positive change, leading to more explorative perspectives on projects as well. Dewey's ideas about the limitations of traditional epistemology are similarly relevant to understanding why people have perceived uncertainty as a hindrance and also demonstrate that there can be a concrete and plausible philosophical alternative. Finally, Wittgenstein's reflections on certainty can have a calming effect on those who get anxious at the thought of the unfounded assumptions we make in everyday settings.

A philosophy of uncertainty in projects can serve to explain why and how positive human drama can be a significant dimension in project work. Carlsen et al. (2012, p. 111) have identified six types of human drama in idea work and related project work and all illustrate the potential embedded in embracing uncertainty rather than always seeking ways to reduce it (Table 1).

We can activate drama by inviting individuals and groups to enter uncertain territory and explore it together. Reducing the unknown unknowns can make it less attractive to join the project and mobilize one's resources to participate in it. The six types of human drama involve uncertainty in varying degrees, and further research into concrete project processes can explore the degrees to which their activation depend on, embracing the fact that significant dimensions of the reality in which the project will take place are unknown.

To say that the proponents of a planning perspective on projects are similar to the confused flies stuck inside a flybottle may seem like an unreasonable comparison—and an underestimation of competent individuals, communities, and work environments—but changes in the perspective on uncertainty have the potential to enrich project management, both in practical settings and research. Embracing uncertainty does not demand a break with the traditional way of thinking about a project cycle going through stages of initiation, planning, execution, monitoring, and termination. Rather, the pragmatic perspective supplements this approach, by loosening it up and making it less fundamental. It can also be a challenge in concrete cases to distinguish between welcome and unwelcome uncertainty. Surely, there will be kinds of uncertainty that it will be wise to reduce, as in safety-critical projects where the reduction of uncertainty can mean a reduced probability of unfortunate outcomes and events. Malpractice is a source of uncertainty, and reducing the chances of it occurring in project is a plus. How to draw the line between the kinds of uncertainty that project managers and others should embrace and the kinds of uncertainty they should attempt to minimize, is a challenge for further explorations in the philosophy of project management, and a practical and concrete challenge in projects. The current contribution builds on the idea that an action-oriented, pragmatist approach to projects provides a more realistic account of what goes on when people join forces to engage in small-scale and large-scale project work and provides a more adequate account of the human drama that enfolds in projects.

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