



The five modes of comportment for project managing: Disclosing the tacit in project work

Bronte van der Hoorn^{*}, Stephen J. Whitty

University of Southern Queensland, Australia

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Abstract

This study makes two contributions to the discussion of tacit knowledge in project managing. Firstly, it provides a framework to examine the tacit aspects of project managing based on the Heideggerian concept of *comportment*. Secondly, it identifies five modes of *comportment* that are common across the study participants. *Comportment* is concerned with what humans are directed towards and how their attunement with equipment in their day-to-day life of coping reflects this directedness. Our study uses photo elicitation and semi-structured interviews to reveal the *comportments* that practicing project managers adopt towards the equipment in their practice. We propose that the framework and modes of *comportment* will provide a useful research tool for exploring the tacit in project work and an alternative framework for project management education that aligns with both the ‘lived experience’ and critical project management agendas.

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1. Introduction

This research makes two contributions to the project management literature on tacit knowledge. Firstly, it introduces Heidegger's concept of *comportment* to the discourse through the development of a framework which can be used for examining and discussing a project manager's application of tacit knowledge when managing project work. Secondly, it presents in the framework the ‘five modes of *comportment*’ that project managers have in their practice of managing. This provides an alternative way of discussing what project managers do and can provide an alternative educational approach for project managers. As we will explain, the term *comportment* helps us discuss the tacit knowledge project managers have individually developed by being *attuned* with the various equipment around them and their *directedness* towards what is important at a given time.

There is a growing discourse on tacit knowledge in the project management literature. Whilst there are various perspectives of Polyani's differentiation of tacit knowledge

versus explicit knowledge in the literature (Fruehauf et al., 2014; Grant, 2007; Sajjad et al., 2005), for the purposes of our enquiry, we see tacit and explicit as being on a spectrum (Sajjad et al., 2005). Explicit knowledge is characterised as being formal and codified, often written down or clearly articulated in processes; in project management it is often associated with the content of the bodies of knowledge (Alavi and Leidner, 2001; Morris et al., 2006). Tacit knowledge is associated with being contextual, subjective, being difficult to codify or explain, and often not necessarily being within the consciousness of the person possessing the tacit knowledge (Mathison, 2005; Schwandt, 2007).

This interest in the tacit aspects of project managing is largely driven by the ‘lived experience’ agenda and critical perspectives. To summarise, the Rethinking Project Management Network and ‘lived experience’ movement have called for researchers to look to practice to improve project delivery and to consider alternative research paradigms and methods to examine project work (Cicmil, 2006; Cicmil et al., 2006; Fernandes et al., 2015; Floricel et al., 2014; Muller et al., 2013; Smith, 2014; Svejvig and Andersen, 2015; Winter et al., 2006; Winter and Szczepanek, 2009). This ‘lived experience’ perspective focuses on appreciating the actuality (how it is

^{*} Corresponding author.

E-mail address: info@brontevanderhoorn.com (B. van der Hoorn).

experienced by the practitioner) of what occurs in project work rather than what should or is espoused to occur, and it recognises that project managing is more than the contents of the bodies of knowledge. This ‘lived experience’ perspective is complemented by one focus of the critical perspective of project management agenda, which is to provide a socio-political critique of the instrumentalist project management guides (Cicmil and Hodgson, 2016; Sage et al., 2010). The critical project management movement has also provided a platform for the introduction of more diverse perspectives (including critical management studies and continental perspectives) in project work and its management (Hodgson and Cicmil, 2008; Sage et al., 2010, 2014) with the objective of varying the nature of knowledge that is generated and the insights derived.

There are two primary areas of research relating to tacit knowledge in the project management literature. The first is the so-called soft-skills (versus hard-skills) literature, and the second is the discourse on phronesis and reflexive practice. In terms of the soft-skills paradigm, there is growing recognition that the project manager requires a combination of so-called soft-skills to manage complex stakeholder relationships in addition to their use of the more traditional ‘project management’ tools such as Gantt charts and work breakdown structures (Berg and Karlsen, 2007; Karrbom Gustavsson and Hallin, 2014; Pollack, 2007; van der Hoorn and Whitty, 2016). However, the ‘know-how’ of these soft-skills are difficult to codify and communicate in an explicit manner. They are largely context-based and rely on intuition and having been learnt from experience, and are therefore largely tacit (Petter and Randolph, 2009; Suikki et al., 2006). There is an inherent subject-object dualism with the soft-skills paradigm given its focus on skills that can be acquired and improved. More contemporary perspectives of project managing recognise that such Cartesian thinking can limit our conceptualisation of project work and how it is managed (for example, van der Hoorn and Whitty (2015)).

Also within the tacit knowledge discourse is the recognition of the importance of practical wisdom (phronesis) in managing project work (for example: Bredillet (2013, 2015); Hodgson and Paton (2016)). There is a consensus that the use of judgement, intuition and reflexivity are important in managing project work. Whilst the phronesis discourse is not of a Cartesian grounding, it does not provide a practical framework for researchers to disclose and describe these critical but tacit aspects of project managing practice. We argue that the development of such a framework is critical for advancing the discussion of tacit know-how in project work. Such a framework is a foundation for advancing the empirical research on the tacit know-how in project managing. Such a framework could also be a foundation for an alternative to education structured around the body of knowledges’ processes and tools.

Our contribution takes an assumption challenging approach (refer Alvesson and Sandberg (2011, 2013) re problematisation) aligned with critical project perspectives, by using Heidegger’s concept of *comportment* to provide a contribution to our understanding of tacit knowledge in project

managing. We complement this by looking to the experience of practitioners to demonstrate the framework. Heidegger’s *comportment* brings a different perspective to the existing discussion on tacit knowledge in the project management literature. Specifically, the concept of *comportment* informs us where an aspect of tacit knowledge is in action, and through our empirical data we identify that there are five modes or meta-ways our sampled project managers *comport* with equipment. Thus, whilst the soft-skills literature highlights that there are competencies that are difficult to codify, the concept of *comportment* helps us identify and speak about what it is that is difficult to codify. And whilst *phronesis* highlights the importance of judgement and intuition garnered through experience and reflexivity, it is *comportment* that enables us to access what specifically it is that is requiring this intuition and judgement. Subsequently, we ask the questions: ‘can Heidegger’s concept of *comportment* be used to develop a framework for examining tacit knowledge in project managing?’ and ‘does this framework reveal modes of comportment that are common to practitioners?’

Heideggerian concepts have extant use in the project management literature for disclosing the ‘lived experience’ and offering an alternative to traditional perspectives on project work. For example, Sewchurran and Brown (2011) use Heideggerian concepts to examine information systems projects. van der Hoorn and Whitty (2015) develop a Heideggerian framework for examining project work by drawing on the concepts of Heidegger’s (1967) *Being and Time*. And Rolfe et al. (2017) propose the use of existential hermeneutic phenomenology (EHP), which draws strongly on Heideggerian perspectives to assist practitioners in their coping with the lived experience of project work. Whilst the use of such Heideggerian lenses have derived new insights, to date the Heideggerian concept of *comportment* and how it highlights tacit knowledge through how project managers are *attuned* with equipment to fulfil some purpose has not been examined.

We ground our work in the ‘lived experience’ through the use of photo elicitation and semi-structured interviews to reveal the *comportments* that practicing project managers’ adopt towards equipment (tools, processes etc.) in their practice. In all, we discovered five different modes of *comportment*: to see - to understand what has and is happening; to think - what might happen and should happen; to share - what should happen or is happening; to steer - what should happen; and to impress - that I know what I’m doing. Whilst the five modes of *comportment* were common across the participants, each mode was enacted in various ways.

To put our proposition plainly, there is recognition of the criticality of tacit knowledge in project managing. However, there are limits to the current discourse in terms of how tacit knowledge is conceptualised and the absence of a framework to support empirical research to disclose and discuss the tacit in project work. Such a framework is important in terms of advancing empirical research on the tacit knowledge in project work and can also advance project management education.

The paper is structured as follows. Firstly, we discuss the literature relating to soft-skills and phronesis to highlight how

Table 1
Summary of paradigms relating to tacit-knowledge in project managing.

| Paradigm | Terms associated with the paradigm | Paradigm features | Relationship to tacit knowledge |
|-------------------------------|---|--|--|
| Human or soft-skills practice | Soft-skills: Leadership, communication, negotiation, team work etc. | Identification of two type of skill-sets. One that is focussed on interactions and is more difficult to describe and is dependent on context (soft-skills); the other which is more instrumental and context-agnostic (hard-skills). | Tacit knowledge is in soft-skills and these skills can be acquired and improved. Assumption of subject-object duality. |
| Phronesis | Judgement, intuition, situational awareness and reflexivity | Recognising the criticality of context and being situationally-aware. Cultivation of expertise and wisdom through experience. | Tacit knowledge is in 'expertise' that is cultivated through practical experience in diverse situations. Embodied in the person. |
| Heidegger's comportment | Care, for-the-sake-of-which, intentionality, coping, directedness | Based on their 'care', Dasein is attuned with equipment to achieve a necessary 'in-order-to'. | Tacit knowledge is the structure of the attunement they have with equipment to use them as part of their 'in-order-to's'. |

these concepts have been discussed in terms of tacit knowledge. We then examine the concept of *comportment* and how Heideggerian concepts have been applied to professional practice more broadly. The research methodology and the results from this data analysis are then detailed. Finally, there is a discussion of the implications of these results in terms of theoretical and practical contributions. Study limitations, future research opportunities, and a final word are provided to conclude the paper.

2. Literature review

In the following literature review three key areas of literature (as listed in Table 1) will be summarised and compared with the aim of highlighting how Heidegger's concept of *comportment* provides an assumption challenging method of accessing the tacit dimensions of project managing practice.

2.1. Soft-skills paradigm

A key area where tacit knowledge is being explored in the extant literature is in the discussion of the human or soft-skill aspects of project managing. Numerous authors point to a shift from a focus on technical, instrumental or hard-skills of project management to the more human, interpersonal or soft-skills of practice (Berg and Karlsen, 2007; Karrbom Gustavsson and Hallin, 2014; Pollack, 2007; van der Hoorn and Whitty, 2016). These people-focused or soft-skills of project work are generally considered to be tacit in nature (Connolly and Reinicke, 2017; Petter and Randolph, 2009). However, there is a recognition that capturing and sharing tacit knowledge tends to be more difficult than sharing explicit knowledge but that sharing this tacit knowledge is critical to project success (Tukel et al., 2011; Usman and Ahmad, 2012).

Despite these difficulties in codifying these skills, there is widespread agreement on their criticality for 'project success'. For example, Alderman and Ivory (2011) propose an alternative view of project success and failure drawing on actor-network theory, multinoality and sensemaking. Their model is driven by a recognition of the more elusive tacit skills required of project managers. Sunindijo (2015) undertook a survey of 107 project managers. Their findings suggest a correlation

between soft-skills such as emotional intelligence, leadership, and sincerity with traditional success factors such as time, cost and quality performance. Most recently, Zuo et al. (2018) surveyed 108 project managers in the Vietnamese construction industry, and they also found a correlation between soft-skills and project success.

Soft-skills as a key project managing competency is also derived from a variety of studies. For example, Syed et al. (2010) in exploring project complexity found that human issues were the main factor contributing to the complexity of projects and therefore argues for the criticality of human skills. Skulmoski and Hartman (2010), Stevenson and Starkweather (2010), and Keil et al. (2013) argue this point specifically in relation to IT projects. Fisher (2011) examined what project managers perceive to be the most important skills and associated behaviours in their work. They derive six skills and behaviours of an effective people project manager. These include being genuine and honest with others, leadership, influence capability and conflict management. And in a study of job advertisements for project managers across the globe, industry-specific competency requirements were the most frequently noted (Chipulu et al., 2013). However, communication skills, team management and leadership followed closely (Chipulu et al., 2013). In a more recent study, Brière et al. (2015) interviewed 28 international development project managers. In asking the project managers about the competencies required to fulfil the role in this sector it was found that adaptability, span of technical abilities, management skills (which included team management and conflict resolution) and communication skills were most frequently mentioned.

These important human or soft-skills are considered to be largely tacit. For example, Sewchurran and Scott (2009) in their discussion of Information Systems Project Management education associate human skills with being invaluable tacit knowledge. Petter and Randolph (2009, p. 48) state that "[s]oft skills often require experience or tacit knowledge to address them as opposed to technical skills in which the required knowledge can be shared easily via books or formal knowledge bases." The tacit knowledge associated with leadership in a project context is acknowledged by Starkweather and Stevenson (2011). Connolly and Reinicke (2017) acknowledge that soft-skills are of a more tacit nature, compared to hard-skills which

are more commonly associated with explicit knowledge. Unfortunately, capturing and sharing such tacit knowledge related to project work continues to be a challenge for the discipline (Anand et al., 2010; Cicmil et al., 2006; Koskinen, 2000; Tukul et al., 2011; Usman and Ahmad, 2012). To summarise the perspective of this existing paradigm in relation to examining the tacit aspects of practice, we see that there is recognition of a particular set of tacit skills that are critical for delivering project work and are associated with project managing competence but codifying and discussing the specifics of these skills is challenging. This paradigm also has an inherent Cartesian subject-object dualism given how it suggests that there are such things as skills which can be acquired and developed.

2.2. Phronesis paradigm

The next extant paradigm related to tacit knowledge in project managing is the Aristotelian concept of phronesis. Phronesis is aligned with the idea of practical wisdom or judgement (Coghlan and Brydon-Miller, 2014). Phronesis is also linked to a human's ultimate goals or ends, and doing the right thing (Bredillet et al., 2015). In arguing for the need for project management practice to be grounded in the 'lived experience', Cicmil et al. (2006) draw on Flyvbjerg's (2001) argument for a phronetic view of management that appreciates the use of judgement, intuition and reflexivity in practice. The value of this phronetic lens or paradigm for examining project management is advocated by many authors including Cicmil (2006), Bredillet (2013, 2015), Morris (2014), Holt (2014) and Hodgson and Paton (2016).

For example, Bredillet (2013, 2015) argues its value through proposing a praxeological style of reasoning and pluralistic perspectives in project management research that bridges the theory-practice divide. He suggests that phronesis (along with praxis) can mediate between a logico-scientific perspectives and narrative perspectives. Hodgson and Paton (2016) in discussing the professionalisation of project management, draw on Morris (2013) and also concur with the limitations of the bodies of knowledge in terms of providing the practical wisdom (phronesis) the discipline critically needs.

There are also more domain-specific references to phronesis in relation to project management. For example, Rogers (2014) presents an alternative approach to learning lessons in project work. Rather than a reductionist approach for learning lessons, he proposes a contextualised narrative (termed, thick narrative) approach that captures the phronetic. Furthermore, building on many of the works already introduced in this section, Bouwman and Brohm (2016) present an auto-ethnographic account of a situation in a large infrastructure project. The authors argue that many of the required project manager competencies can be seen as phronesis – specifically sensitivity to the situation and recognising the various cares at play for the various people involved in a negotiation. Schoper et al. (2018) also argue the importance of project managers having awareness and intuition if they are to deal with uncertainty in their work. They associate these capabilities as being a phronesis competence.

We see from this brief review of the phronesis paradigm in project management that there is an established call for the recognition of context-specific sensitivity and judgement in the project management discipline. And that something more than prescriptive rules and their application is required to deliver projects. Moreover, whilst the discussion of phronesis in the project management literature highlights the importance of experience and learning from reflection that is then embodied in the practitioner, a framework for exploring the tacit aspects of practice is yet to be identified.

2.3. Heidegger's comportment paradigm

2.3.1. Heidegger's concept of comportment

Heidegger's concept of *comportment* will be used in this study to access the more tacit dimensions of managing project work. In simplistic terms, *comportment* can be considered to be what humans (in Heidegger's language, *dasein*) *care* about or are directed towards (Dreyfus, 1991). To understand Heidegger's concept of *comportment* it is useful to characterise the Cartesian perspective of intentionality, which reflects subject-object dualism and a primacy to rationality (Crowell, 2005; Dreyfus, 1991). There is the assumption that intention is something 'in the mind' and that it precedes action. However, Heidegger provides a view of intentionality that avoids Cartesian subject-object dualism (Crowell, 2005; Dreyfus, 1991). This is not surprising given that Heidegger's paradigm of *being-in-the-world* supposes that *dasein* is entirely connected and amidst, and in an involved relationship with their environment. Heidegger's *comportment* reflects the integrated nature of *dasein* with their *world*. It is a concept more closely aligned with phronesis than the soft-skills paradigm. Heidegger argues that what we *care* about frames our *world* and we are *solicited* by the situation to behave in a certain way. Therefore, *comportment* is a primordial characteristic preceding intentionality (in the more common meaning of the word). Dreyfus (1991, p. 62) quotes Heidegger:

"The kind of dealing which is closest to us is... not a bare perceptual cognition, but rather that kind of concern which manipulates things and puts them to use."

Heidegger's *comportment* is a core characteristic of *being dasein* (Dreyfus, 1991). It is the result of *dasein*, who *cares* for things, and is *directed-towards being-in* their *world*.

It is useful to consider two further Heideggerian concepts, equipment and *attunement*, which are important to understanding the *being-in* nature of *comportment*. *Dasein* exists in a *world* of various *equipmental totalities*. *Equipmental totalities* are networks of equipment. *Dasein's* everyday world is an arrangement of *in-order-tos* involving equipment, that are directed *towards-which's* that align to *dasein's for-the-sake-of-which* (Brandom, 2005). Heidegger uses the term *attunement* (Heidegger and Krell, 1993) to explain that no relationship with equipment can ever be free of a historical understanding of the thing. Put simply, we learn to be *attuned* with equipment in

various ways to achieve our *in-order-tos*. We will propose that this learnt *attunement* is a critical aspect of tacit knowledge.

To summarise, *dasein* cannot avoid *comporting* (behaviour with directedness given their *care*), as it is in *dasein's* very existing (Dreyfus, 1993). However, *dasein* can *comport* in many different ways depending on their *for-sake-of-which* and associated *towards-whichs*, and will be *attuned* with various equipment in diverse ways as part of this *comportment*. *Comportment* is how we are involved in the world. In buying, observing, pondering and managing et cetera *dasein* comports itself.

“Da-sein means being absorbed in that toward which I comport myself, being absorbed in the relationship to what is present, and being absorbed in what concerns me just now. [It is] a letting oneself be engaged with [sich-einlassen] what concerns me.” (Heidegger, 2001, p. 161).

The concept of *comportment* helps to disclose *dasein's care* (a driver of their action) and also the relationship between their *care* and their *attunement* with equipment to achieve a necessary *in-order-to*. Reflective of more contemporary and critical perspectives in project management, the term *comportment* avoids subject-object dualism and is strongly action and *being-in* focused. *Comportment* provides a phenomenological framework to build on the existing phronesis discussions in the literature.

2.3.2. The use of Heidegger's perspectives in studying professional practice

Heidegger's concepts have extant use in enabling researchers to access the more tacit aspects of various professional practices. For example, Heidegger's concepts have already been drawn upon in various disciplines to argue for a shift from instrumental and cognitive views of practice and avoiding intellectualocentrism of practice (Carroll et al., 2008; Donnelly, 1999; Lum, 2003). Furthermore, with his *being-in-the-world* ontology and the Dreyfus and Dreyfus (1980) skills acquisition model, the necessity for a more contextualised understanding of professional practice that highlights the importance of situational awareness and being able to tailor action to the situation has been developed (Benner, 1982; Cicmil, 2006; Gibbs and McRoy, 2006; Lum, 2003). There has also been explicit recognition that Heidegger's concepts are useful in understanding the directedness or intention in professional practice (Benner, 1982; Donnelly, 1999; Lum, 2003). And that this directedness is linked with tacit aspects of practice (Donnelly, 1999). We see from these studies that there is an established use of Heidegger's concepts in relation to professional practice as a way to enable discussion and examination of the facets of practice that are beyond the purely rational or instrumental and which may not be explicit.

2.4. Summary of the literature review and research questions

Our literature review has introduced three paradigms relating to tacit knowledge in project management. The first

paradigm (soft-skills) is well established and identifies that there are competencies that are difficult to codify but which are critical to practice. It has a subject-object dualism grounding. The second paradigm (phronesis) is also established in the literature and highlights the criticality of experience, judgement and reflection, however it does not provide a framework for exploring the tacit in project managing practice. We propose that the absence of a framework that avoids subject-object dualism for disclosing and discussing the tacit in project work is limiting the advancement of practice-based research. However, in exploring the third paradigm (*comportment*) we see an extension of phronesis through an emphasis on how *directedness* or *care* is inextricable from how we use equipment. Rather than focussing on the tools (such as Gantt charts or meetings) in isolation, the *comportment* paradigm enables us to talk about the unification of *care* and equipment in the context of managing project work, and how this manifests as the practitioner's tacit knowledge for forming the necessary *in-order-tos* for managing project work. Given this we derive our research questions as:

RQ1. Can Heidegger's concept of *comportment* be used to develop a framework for examining tacit knowledge in project managing?

RQ2. Does this framework reveal modes of comportment that are common to practitioners?

We adopt these questions with the aim of advancing the tacit knowledge discourse and providing an alternative way to conceptualise project managing practice.

3. Methodology

We have now established that Heidegger's concept of *comportment* provides an assumption challenging perspective to explore the tacit aspects of project managing and this concept will be the primary analysis framework for our empirical data and provide the conceptual grounding for the framework. The Heideggerian view is also strongly aligned with the ‘lived experience’ perspectives that are currently being pursued in the literature given its *being-in-the-world* grounding. We propose that the Heideggerian *comportment* lens also aligns with the critical perspectives summarised in our introduction, as this perspective brings the practitioner's experience to the fore and questions the instrumentation-focussed views of the bodies of knowledge. The overall methodology can be described as interpretivist and phenomenologically grounded. The specific data collection and analysis methods for the study are discussed in the following sections.

3.1. Data collection

Interpretivist and phenomenological research aligns with qualitative research methods such as interviews, ethnography and case studies (Gray, 2014; Saunders et al., 2009; Wahyuni, 2012). A particular interest of this study is to disclose the *comportment* of project managers on a day-to-day basis, and as

such a research method that allows for insights into their contextualised day-to-day life is required.

3.1.1. Method: Semi-structured interviews triggered by photo elicitation in a case context

Across the social sciences there is established use of photographs to trigger discussions with research participants about a phenomena (for example [Castleden and Garvin \(2008\)](#); [Einarsdottir \(2005\)](#)). It is this method that will be used for the empirical data collection in this study. The potential benefits of the method in organisational studies have been recognised ([Bell and Davison, 2013](#); [Meyer et al., 2013](#); [Ray and Smith, 2012](#); [Warren, 2005](#)). Photo elicitation assists to ground interviews in the ‘lived experience’ and enables something more than textual narrative to be disclosed by the research participants ([Warren, 2005](#)). It is also posited to encourage a dialogical approach that assist in eliciting rich information about a phenomenon ([Meyer et al., 2013](#)).

We now consider examples of studies undertaken in the organisational sciences area that have used photo elicitation as part of their data collection. Firstly, there are a variety of studies that have used this method to explore professional life ([Buchanan, 2001](#); [Rapport et al., 2007](#); [Rapport et al., 2006](#); [Shortt and Warren, 2012](#); [Slutskaya et al., 2012](#); [Warren, 2002](#)). The occupations they examine vary from hair dressers, to butchers, to IT professionals and health practitioners. The purposes of the studies vary from exploratory with the aim of understanding the general or specific aspects of experience of the working lives of the professionals or their identities ([Rapport et al., 2007](#); [Rapport et al., 2006](#); [Shortt and Warren, 2012](#); [Slutskaya et al., 2012](#); [Warren, 2002](#)), to more practical aims in terms of solving organisational problems ([Buchanan, 2001](#)). Many of the studies comment that the use of photos accompanied by explanatory narratives resulted in data that standard interviews alone could not have generated ([Buchanan, 2001](#); [Rapport et al., 2007](#); [Shortt and Warren, 2012](#); [Slutskaya et al., 2012](#); [Warren, 2002](#)). However, many also recognise that the photos alone should not be relied on to provide an accurate representation of the experience and that the accompanying explanatory narrative is critical to the study design ([Rapport et al., 2007](#); [Slutskaya et al., 2012](#); [Warren, 2002](#)). And further, that this method should not assume that photos present some form of ‘truth’ ([Warren, 2002](#)). There is also discussion of the criticality of privacy and ethics in such a method and ensuring the researcher and the participants give consideration to privacy concerns ([Rapport et al., 2007](#); [Slutskaya et al., 2012](#); [Warren, 2002](#)).

The particular variant of photo elicitation adopted in this study was asking participants to take photos from their lives or of a particular phenomenon to be used as stimuli for discussion in a semi-structured interview (refer [Clark-Ibáñez \(2004\)](#); [Flick \(2009\)](#); [Tinkler \(2014\)](#)). For this study project managers were asked to take photographs of their day-to-day experience of managing project work and to then discuss these photos with the researcher in a one-to-one interview. This approach aligns with the increasing use of participatory research methods which give the researched a voice ([Frohmann,](#)

[2012](#); [Gotschi et al., 2012](#)). As [Clark-Ibáñez \(2004\)](#) argues, asking the researched to take photos of their experiences is aligned with a more inductive approach and enables participants to tell their stories. It also reduces the likelihood of researcher bias in the selection of images ([Lapenta, 2011](#); [Shortt and Warren, 2012](#)), and gives the researcher access to areas that would be difficult for them to otherwise see ([Tinkler, 2014](#)). Clearly this aligns with our ‘lived experience’ and phenomenological approach. We also note that both [Bredillet \(2013\)](#) and [Walker et al. \(2008\)](#) have discussed the importance of including practitioners as researchers in project management research.

It is also necessary to acknowledge the alignment of this research method with case study research. Only a small sample of participants ($n = 6$) was adopted for this study on the basis that each participants' experience is a form of case. Case study research has been recognised as being a valuable source of information in the project discipline ([Reich, 2015](#)). Its strengths being in providing highly contextualised information for exploratory purposes ([Flyvbjerg, 2006](#)). We also note [Yin's \(1994\)](#) comments that case study research is appropriate when studying complex social phenomenon in real-life contexts, and that theory can be developed from as little as three to four cases ([Yin, 1981](#)). A similar sentiment is made by [Flyvbjerg \(2006\)](#) who argues that a large sample size is not necessary in case study work for a valuable contribution to be made. We also highlight that a universal generalisability of the five modes of *comportment* from this sample is not being proposed.

3.1.2. Study participants

Project managers known to the researchers from their professional work experience and previous scholarly engagement were invited to participate in the study. The researchers were seeking a diversity in project work experiences as part of exploring the ‘lived experience’, and therefore potential participants from various organisations and industries, ages and experience levels, and a mix of men and women were approached to participate. The only requirement for participation was that the participant self-identified as managing project work as a key part of their position and were working in Australia. Given the diversity of thinking regarding what is project management ([Bredillet, 2010](#)), and our interpretivist and phenomenological approach that privileges the personal experience, this self-selection criteria is considered appropriate.

Of the six participants that agreed to contribute to the study, one was female and five were male; their ages ranged from [20–29] to [40–49] years. The range of experience in project work was from 6 years to 17 years. Over half of the participants had in excess of 10-years' experience in project management roles. The participants were working in a variety of sectors: utilities, higher education, construction, telecommunications, finance, and information systems. Their current organisations included both government and private sector firms, and all organisations could be considered large enterprises or bureaucracies rather than small-medium enterprises.

3.1.3. Study design

Potential participants were approached by the research team with information on the study and the required commitment to participate: taking photographs of their practice experience and participating in a semi-structured interview. Those potential participants who indicated initial interest were then provided with all necessary ethics information, provided their consent, and were given a more detailed briefing on the type of photographs to be taken. The participants were asked to take between seven and ten photos (over the period of approximately one week) that captured their experience of managing project work. They were asked to capture photos that disclosed:

- What is it like to be a project manager?
- What are some of the key experiences of being a project manager?
- What do you find you are dealing with on a day-to-day basis when fulfilling the activity of project managing?

For privacy reasons, participants were asked not to take photographs that included people other than themselves. However, we note that this did not preclude the participants discussing matters relating to people. For example, one participant explained challenges they were encountering in managing a member of staff. Whilst they didn't take a photo of the person, the photo they took was of their desk area, and this was stimuli for the conversation. As per Harper (2012) our study goal, aligned with a phenomenological approach, was to access the experience of the day-to-day rather than any particular critical incident or period. As such the time period of 7–10 days was deemed suitable for eliciting the photos. We note that the participants were at varying stages in their projects and that the semi-structured nature of the interviews saw participants commenting on experiences outside that immediate study period but that were related in some way to the photograph that had been taken. We also subscribe to the argument of Gotschi et al. (2012) and Newbury (2009) that the photographs are simply a starting point for a discussion grounded in the participants' 'lived experiences'. And as per Slutska et al. (2012) that even a small number of photographs (five per participant in their photo elicitation study) can derive meaningful results.

Once a participant had taken their photographs they sent these to the researcher who printed each photo out on a single page and added a unique identifier (to assist with identification of the photo on the audio recording of the interview). A single semi-structured interview was then held during which the participant's photographs were used as stimuli for discussion. These interviews were held in-person, guided by an interview proforma, and an audio recording was made to supplement the researcher's notes. The interviews were between 30 min and two hours in duration. A series of demographic questions were asked at the start of each interview, then each photo was explored through questions that examined the experience of *being* a project manager. The interview concluded with some summarising questions relating to the participant's reflections on what had been discussed during the interview. It was the

transcripts from these interviews (not the photographs themselves) that were analysed as per the method described in Section 3.2.

3.2. Data analysis method

Following each interview, the audio recordings of the participants' narratives were fully transcribed and imported into NVivo for coding. The data analysis approach adopted was thematic analysis. Thematic analysis is a flexible method that enables a researcher to identify themes or patterns in data (Clarke and Braun, 2017; Lapadat, 2010); it can be seen as a way of categorising and summarising data (Given, 2008). There are two key stages in thematic analysis, (1) coding for lower level ideas in textual strings; and (2) looking for groupings or 'themes' in these coded strings (Clarke and Braun, 2017; Given, 2008). A particular feature of thematic analysis is that it allows the context in data to be preserved (Lapadat, 2010) and there is a focus on sharing actual data from participants (Vaismoradi et al., 2013). It is also acknowledged as being appropriate for both larger and smaller datasets (Clarke and Braun, 2017).

In this study the initial focus during data analysis was on identifying textual strings that drew attention to what the participant was:

- caring about (for example: "I think it's really good to understand");
- trying to achieve or avoid (for example: "to find out..." or);
- intending to achieve (for example: "So that you can manage it and keep it on track.").

This was coding for the *comportments*. As introduced in Section 2.3.1 *comportment* is concerned with what *dasein* is concerned about, what is their *care*, and it can be conceptualised as a form of *being-in* intentionality. As such we were looking for what the participant cared about, and what they were trying to achieve or avoid or some reference to intentionality.

Following an initial coding across all participant transcripts the codes were reviewed for logical groups (in thematic analysis these would be considered the 'themes') to elicit the modes of *comportment*. As per Clarke and Braun (2017), such 'themes' are then able to become the larger patterns of meaning and are the framework for findings. It is these themes that express the five modes of *comportment* in Fig. 1. Following this coding and theming of *comportments*, the equipment that were *attuned* with as part of these *comportments* were coded and associated with the *comportments* (refer Table 2).

4. Results

The results of the study will now be provided with reference to each research question. Firstly, in answering RQ1, we were able to develop a framework for examining tacit knowledge in project managing based on Heidegger's concept



Fig. 1. The five modes of comportment framework for project managing.

of *comportment*. Secondly, in response to RQ2, there were five modes of *comportment* common to the sampled practitioners. The implications of these contributions are considered in the discussion.

4.1. RQ1: A comportment framework for examining tacit knowledge

As introduced in the literature review, Heidegger's concept of *comportment* describes how *dasein* has a relationship to equipment that results in it becoming useful to achieve an *in-order-to*. The visual structure of our framework captures this integrated *being-in-the-world* nature of *comportment* by illustrating that *dasein* *comports* towards something through their relationship to equipment. Each sector in Fig. 1 is a *comportment*, and through the visual layout we are communicating that it is through *attunement* to various *equipment* (the lighter shaded area) that *dasein* *comports*. When we consider the empirical data in this way we find support for the *comportment* concept:

1. Project managers are *attuned* with equipment for a variety of purposes within their practice. In Heideggerian terms they have *care* or *directedness* in their action. This is shown visually by the arrow and the outer text of each sector.
2. These purposes can be grouped into five areas of *directedness* (the five modes of *comportment* – refer

Section 4.2). This is shown by the five mode of *comportment* sectors.

3. There is variation in the type of equipment that the project managers are *attuned* with for achieving similar purposes in their practice. In Heideggerian terms this is their equipment that they are using for their specific *in-order-to* to achieve their *comportment*. Visually, this is shown as the tools in between the arrow and outer text of the sector.
4. There is variation in the way project managers use the same equipment for similar and different purposes. Heidegger recognises the context-dependent nature of *equipment*.

We note that the equipment shown in Fig. 1 are examples from the study and do not include all the equipment revealed through the participant's narratives relating to each mode of *comportment*. We conceptualise that it is within the lighter shading area in each sector that project manager is applying their tacit knowledge. This is where the project manager and equipment are *attuned* in varying ways to achieve a specific *in-order-to*.

There is also no order or sequence associated with the application of *comportments*. Visually, this is shown through the circular rather than linear diagrammatic layout. Nor should it be inferred that these events occur only once in a project or have any alignment with a project's lifecycle. Rather this array of *comportments* may be practiced many times within a single day. For example, in an extract from Participant 2, we see several of the *comportments* are performed within a single

Table 2

Sample of participant narratives showing *in-order-to*s, equipment, and alignment with modes of *comportment*.

| Example extracts of comportments from participants | Equipment | Association with the comportment mode |
|--|---|--|
| Comportment mode: To see - to understand what has and is happening | | |
| “...someone comes up with any kind of technical term, I will always google to find out what it is, how it impacts, all those kinds of stuff. So I'll go and do research.” [Participant 4] | Google searches | Using a google search as an <i>in-order-to</i> to build knowledge about what is occurring. |
| “So it could be facial expressions in relation to say when a contentious issue is being discussed, and you can see whether someone is anxious or [inaudible] about this. And also you can see the looks of happiness too when you're talking about something that's where they've achieved well and you're reporting a positive outcome.” [Participant 5] | Holding meetings with stakeholders (inc. video conferences) | Reading people's facial expressions as an <i>in-order-to</i> to discern what is actually going on. |
| “What's the kinds of things that I use to detect, and what type of information is coming in that you are using to do that strategic detection? So there's a whole bunch of noise that comes in – all different things. And then you work out is it strategic or is it just noise. And then the skills to extrapolate what's going to happen. A lot of people say the ‘sky's falling’. But you need to be able to say what type of sky is falling...” [Participant 1] | Processing emails and phone calls | Using the information provided through email and phone as an <i>in-order-to</i> to discern what is important. |
| “I find it really useful [creating a WBS using sticky notes in a public place], like people in the workplace often come along and have a giggle, what are you doing, what are all these bits of paper, that looks messy, you know that kind of thing. And when I explain it to them, they usually have something to contribute to it as well. So it's been a really good tool.” [Participant 6] | Developing a WBS | Developing the work breakdown structure as an <i>in-order-to</i> to elicit what stakeholders want from the project. |
| “I think it's really good to understand, I've always been a keen believer that you need to understand your core business, wherever you are. You need to have an understanding and you need to have the ability to put strategically how your core business fits into what you're doing.” [Participant 4] | Undertaking site visits | Undertaking site visits as an <i>in-order-to</i> to build an understanding of the broader environment into which the project contributes. |
| “... his PA, is in this office, so it allows me to go and ask ‘where's he going, what's he doing?’, so I understand when can get I get information, time with him, and stuff like that. Or if I need something approved.” [Participant 5] | Ad-hoc conversations with support staff | Ad-hoc conversations as an <i>in-order-to</i> to gather administrative intelligence that may inform practice. |
| Comportment mode: To think - what might happen and should happen | | |
| “You have to think of everything before you go in there that could possibly come up and have a response to it. So that you can manage it and keep it on track. I probably just care too much about the deliverables.” [Participant 1] | Undertaking detailed preparations for a board meeting | Meeting preparation as an <i>in-order-to</i> to forecast how the meeting may unfold. |
| “... I review this monthly for our projects, and I start again at the top, every time, and I look, at each one, has it changed, should I be escalating, deescalating, blah, blah, blah? Is it still a risk, has the risk changed somewhat?” [Participant 2] | Working on a risk register | Reviewing of the risk register as an <i>in-order-to</i> to consider what might happen within the project. |
| “So, in my mind, a Gantt chart it certainly is a good tool at the start because it makes you think through the process and identifies things that can go wrong, predecessors...” [Participant 2] | Working on a Gantt chart | Development of a Gantt chart as an <i>in-order-to</i> to discern how the project should be executed. |
| “Thinking through possibilities, reflecting on what has happened, how they lead to the current situation and what are the permeations of future possibilities given any number of options.” [Participant 3] | Quiet desk time | Quiet desk time as an <i>in-order-to</i> to think about what might occur next in the project. |
| Comportment mode: To share - what should happen or is happening | | |
| “So getting that balance between providing enough information so that they're satisfied and not too much that it's going to cause a problem. There's a real juggling act.” [Participant 3] | Meetings with senior managers | Meetings with senior managers as an <i>in-order-to</i> to provide the appropriate amount of information. |
| “I actually had printed off [the document], and in my hand a draft of that paper. So it just so happened that the person who needed to see that was in the room ten minutes early and I was able to say “have a look at this, what do you think?” [Participant 3] | Having information to hand to share at ad-hoc moment | Using project documents in impromptu situations as an <i>in-order-to</i> to brief stakeholders on what is happening. |
| “But during this whole process, as I've prepared the programs for the builder, and I've consistently said to my client, ‘they won't hit this until here, they will not hit this until here’, this is what they have to do to get here, and they can't make it, and the builders say ‘no no no – we'll bring this in two months early, one month early... oh, now we're a month over’” [Participant 2] | Monthly reports | The monthly report writing process as an <i>in-order-to</i> to share what is happening in the project and what is likely to be achievable. |
| “...this [product-based planning workshop] is important, this is the one where you define all the products that will be delivered as part of the | Kick-off workshop | Kick-off workshop as an <i>in-order-to</i> to describe what the project is to achieve. |

(continued on next page)

Table 2 (continued)

| Example extracts of comportments from participants | Equipment | Association with the comportment mode |
|--|--|--|
| subsequent stage. So what it requires is a reasonably clear and disciplined agnostic explanation of what the project seeks to achieve, or the stage seeks to achieve, and then there's this multidisciplinary group assembled that need to then I guess visualize the future and identify the work that needs to be done from their functional areas to achieve the end state for the project." [Participant 3] | | |
| "Well, the biggest challenge I have, and the thing that I notice is when you don't have something like this to show people, they have a lot of varied views of what it is that you produce." [Participant 6] | Work Breakdown Structure document | The work breakdown structure as an <i>in-order-to</i> to bring people to a common view of what should be occurring. |
| "Emails, we got so many emails, we're bombarded by them, people don't generally read them and it's more people put stuff in writing to protect themselves rather than actually get stuff delivered. So yeah, and as I said, I always put stuff down afterwards what we agreed." [Participant 4] | Using emails as a follow-up mechanism to conversations | Follow-up emails as an <i>in-order-to</i> to reiterate what should occur based on a previous discussion. |
| "And the way I used my two minutes then was just to set expectations about the timeframe, about what's likely to be complete, in the timeframes that we have left. So I think there is a lot of misconception about what's achievable and what's realistic. So, I just want to reset those expectations, saying that things are progressing but they're moving slowly. Just so there's no surprises." [Participant 1] | Ad-hoc/unplanned conversations | Ad-hoc conversations as an <i>in-order-to</i> to reset expectations based on what is happening. |
| "That was presented at governance on Friday, and it was essentially accepted, the proposal as is, because, when nothing's written down, people make all sorts of interpretations, and it's amazing the interpretations that people make when things aren't written. And people make some pretty incredible assumptions, if stuffs not written down. And it's not because they're trying to undermine the project, they're doing their own interpretation, about what they heard or what they thought they heard, in between probably being on a phone call, or maybe on email or being distracted by somebody else." [Participant 5] | Documenting requirements | Documenting requirements as an <i>in-order-to</i> to bring people to a common view of what should be occurring. |
| Comportment mode: To steer - what should happen | | |
| "... half of my month is spent in this state [preparing for board meetings], managing myself and other people to make sure things stay on track. They're not always this stressful, you know, sometimes, you can't get a board to engage with you at all, which causes a lot of other problems, so this is actually a good problem to have. But managing boards in general, whether you're trying to get them to engage or whether they're engaged too much, is a huge part of the job." [Participant 1] | Board meetings | Board meetings as an <i>in-order-to</i> to keep stakeholders engaged and tracking to plan. |
| "It's more leading them, leading them down the path. So say 'I'm here to talk about this issue, and this is the impact it's having on the project. Before I can get through that, they'll start talking about something else. And I'll say 'ok – so what do you think we might be able to do about it?' So I'll get them to start talking about resolution options. And those sorts of things', for instance." [Participant 3] | Seeding ideas with senior stakeholders | Seeding ideas with senior managers as an <i>in-order-to</i> to encourage them to lead the project in the required direction. |
| "It helps when you come across problems, people will give you favours. And I know that, so I have to make a conscious effort to do it. I actually plan in to do coffee. Because otherwise I'll get focused on delivering." [Participant 4] | Having coffee with team members | Coffee with team members as an <i>in-order-to</i> to build trust which can be used when things are not going to plan and it needs to be steered back on track. |
| "...you really get 'cut-through' with them because you're going out of your way to spend time with them." [Participant 5] | Site visits | Using site visits as an <i>in-order-to</i> to build trust which can be used to steer the project. |
| "But I take personal responsibility for making sure when I leave, that the business has something that is fit for purpose for what they need to function. So I end up a lot of the time being the 'tail wagging the dog', trying to get that engagement with that project, to get them to engage with me, or to escalate the issue, so that someone understands that it's there." [Participant 1] | Resolving an 'out-of-scope' requirements problem | Resolving an 'out-of-scope' problem as an <i>in-order-to</i> to steer the project to deliver what it should to generate business value. |
| "What is the person trying to tell me, why are they trying to tell me that. And if I can get to the heart of that, I can resolve this issue, and if I can resolve this issue, I can finish this project." [Participant 2] | Resolving a technical problem onsite | Resolving a technical problem as an <i>in-order-to</i> to keep the project on track and get the project finished. |
| "So then I set targets for what's going to happen during the week, and so everyone is clear on what's happening during the week. My first thing is I actually have for PMs, a spreadsheet that I look at each week with them. So I go through it with them. It says 'what has occurred in the previous week up to this point', 'what is going to occur', 'any slippages and reasons why', 'any risks or issues'." [Participant 4] | Setting targets each week | Setting targets as an <i>in-order-to</i> to steer the project in the agreed direction. |

Table 2 (continued)

| Example extracts of comportments from participants | Equipment | Association with the comportment mode |
|--|--|---|
| Comportment mode: To impress - I know what I'm doing (i.e. using the in-order-to to develop the confidence of stakeholders in their capability) | | |
| "I believe more importantly, that I use the Gantt chart as part of addressing my client's expectations." [Participant 2] | Using a Gantt chart | Using a Gantt chart as an <i>in-order-to</i> to meet the client's expectations of what a project manager should do. |
| "I don't pick it because I like the report, it's what the report represents, to me, the report is all about, the relationship with the client, this is my opportunity to tell them about achievements, to build trust with them because I'm managing their finances, I know what's happening with their program, I'm aware of their risks." [Participant 2] | Status reports | Sharing status reports as an <i>in-order-to</i> to build trust with the client that the project is under control. |
| "So I normally have meetings with them to start off with. So before we have the first project control group, if I've taken one over, I'll try and meet with them beforehand. So I try and build confidence in them in myself. And this is the bit, I find most unhelpful about myself doing, once I'm into it, it's fine, but selling myself. I know some people don't do it, but I go in and say 'look I'm taking over this project, I've been working in projects for this long, I've been doing', it's just basically telling them trust me. So, it's saying 'this is what I do and you know, I've delivered on these before, so'." [Participant 2] | In pre-meeting with key stakeholders when starting a project | Pre-meetings as an <i>in-order-to</i> to build stakeholder confidence in experience and skill. |
| "Because you can really break down barriers by being with them and gain a lot of credibility that you can't get remotely." [Participant 5] | Undertaking site visits | Site visits as an <i>in-order-to</i> to build credibility with stakeholders. |
| "... you need to be able to show that you're capable. And so it's about selling yourself, it's not, I don't think it's very much about the organisation. It's about saying 'I'm competent as a project manager'" [Participant 6] | Presenting the project in an orderly/controlled manner | Presenting information in orderly/controlled manner as an <i>in-order-to</i> to impress competence. |
| "The necktie is there for the executive meetings, which pop up about once a week. So for the most part, day-to-day, I'm in my own world talking to the people who are the subject matter experts or the doers, those sorts of things. And I don't have to wear a neck tie but it's there for that once a week." [Participant 6] | Wearing a tie to board meetings | Dressing in business attire as an <i>in-order-to</i> to impress managerial capability. |

reflection. The words in square brackets correlate with the mode of *comportment* in Fig. 1:

...so what's the point? You know, I've got enough stuff on the go at any one time, I don't need tick and flick bullshit registers. If I'm going to put the effort into doing it, do it properly, because, it's these risks, that build the trust with the client [To impress], in my mind. Because, particularly if you've spent the time with them upfront, trying to understand their business, understand their drivers [To see], got to that interrogation at the start of what at the core they are trying to do [To think] and you can say to them, this is a potential risk [To share], and it's a risk, not in terms of the project, it's not just a risk about this project can cost you more, there's a greater cost to your business and it is, this is what I've gone through up in [country name].

4.2. RQ2: The five modes of comportment of the sampled project managers

4.2.1. The modes of comportment

The identification of five modes of *comportment* common to the sampled project managers' practice constitute our second result. The modes of *comportment* are:

- To see - to understand what has and is happening
- To think - what might happen and should happen
- To share - what should happen or is happening

- To steer - what should happen
- To impress - I know what I'm doing

These five modes of *comportment* are what the project managers are directed towards (their absorbed intentionality) whilst undertaking various activities within their practice.

4.2.2. The equipment and comportment relationship

In analysing the data, it is revealed that these five modes of *comportment* are enacted in differing ways in project manager's day-to-day practice. Table 2 provides examples of the equipment associated with each mode of *comportment*, and examples of direct accounts relating to their context-specific *in-order-to*.

To summarise our results in relation to the research questions, in using the lens of *comportment* we have been able to develop a framework that highlights a location of tacit knowledge in managing project work. Specifically, that tacit knowledge is present in how project managers are *attuned* to equipment to achieve a required *in-order-to*. The participants' narratives have disclosed five modes of *comportment* within this framework. These *comportments* have not previously been identified in the literature and help bring to our attention to the potential common *in-order-tos* within project managers' practice.

5. Discussion

The implications of these results are now discussed. We identify both theoretical and practical implications arising from

our study's contribution of the *comportment* framework and the identified modes of *comportment*.

5.1. Theoretical implication 1: Advancing the tacit knowledge literature through provision of a conceptual framework

This study advances the discussion of tacit knowledge through the development of the *comportment* framework that avoids subject-object dualism. Firstly, the framework challenges current conceptions of soft-skills versus hard-skills. Specifically, with the *comportment* framework we can conceptualise any project managing action (soft-skill or hard-skills) as being *directed towards* something and involving an element of tacit know-how. Let us take the examples of negotiation and budgeting. In the hard-skills versus soft-skills paradigm, negotiation would be considered a soft-skill and budgeting a hard-skill. The inference would therefore be that negotiation has more tacit know-how than budgeting. However, with this framework we would first seek to understand what the practitioner is *directed towards* in their negotiating and budgeting (their mode of *comportment*). We would then seek to understand how they are *attuned* to various tools that enable this budgeting or negotiating (*in-order-to*) to take place with the aim of achieving their *comportment*. In both cases the structure of their *attunement* is the tacit know-how.

Additionally, the framework can assist further research related to phronesis when examining projects. As introduced in Section 2.2 phronesis is concerned with practical action, applying good judgement and reflecting on one's actions, however there is minimal application of the concept to empirical data. The *comportment* framework is a research tool that could support research in this area of practical wisdom. Through its three components (directedness, equipment, and *attunement*) and their relationship, researchers can use this lens to examine a project manager's directedness in various contexts and how they decide to achieve those ends.

The framework can also be used for broader 'lived experience' practice research. Lifecycle models, and the body of knowledge process and knowledge areas or tools are common frameworks for explaining practice (for example Kerzner (2017); Lock (2012)). The framework from this study provides an alternative to these extant lenses which places the project manager and their embodied action in context at its core. It is different, in that there is both the absence of a temporal and lifecycle dimension, and also in that it is not focussed on equipment or tools but rather what a project manager is directed towards in any given situation. We propose that this is an important contribution in providing an actual framework that can be used in future studies of the 'lived experience' of project work.

5.2. Theoretical implication 2: The positioning of tools/process in project managing

The development of the framework also has a theoretical implication in terms of disclosing the criticality of *comportment* rather than equipment in delivering projects. Whilst there is

much discussion in the practitioner guides on various equipment (e.g. risk registers, Gantt charts etc.), as is recognised by the growing soft-skills literature (refer Section 2.1) there is more to managing projects than the use of this equipment. It is rather in how various equipment is *attuned* with as part of managing and leading people that will have an impact on delivery. This can assist in changing the focus of the discipline from the use of particular tools to being about how equipment is used and for what purpose. Aligning with the theoretical contribution noted in Section 5.1, it can direct our research towards examining the *comportment* of project managers rather than on fixating on what equipment or tools they do or do not use in context-free research. The five modes of *comportment* identified in this study give us insight into the reasons why project managers use equipment. Whilst the *comportments* may seem generic and able to be applied to a variety of work or non-work related activity, we would argue that this is a helpful outcome and aligns with a focus on the actuality of practice. A focus on *comportment* can break us free from the terminology of practice guides and their instrumentation focus as called for by the critical project management and 'lived experience' agendas.

5.3. Theoretical implication 3: Similarities and differences across domains

We suggest that the five modes of *comportment* of the sampled project managers are potentially the more generalisable characteristic of project managing than the use of particular equipment, and hope such a proposition could form the premise of future research. By shifting focus from the so called 'project management' equipment to what project managers are *directed towards*, we can reveal the common ground that links those who manage projects. Practitioners can then consider equipment that aids in their coping with project work that would otherwise fall outside the current classification of 'project management' equipment. We consider this to be an important direction for future research. This aligns with the drive for context-specific and practice-grounded research. The *comportment* framework allows for a new sense of sameness across project managing domains but allows for acknowledgement of differences in the equipment used and how it is used across domains.

5.4. Practice implication 1: a framework for structuring education and training

From an education and training perspective, the framework and identification of the five modes of *comportment* provide an alternative to the professional guide knowledge areas, process areas or lifecycle stages when structuring education and training. It is proposed that the five modes of *comportment* could be used to structure project management education and training and therefore make a practice contribution through changing the way project managers conceptualise their practice. Such a structure would assist in mobilising a context sensitive perspective of project work in the project management classroom with a focus

on what project managers are trying to achieve rather than sustaining the traditional instrumental perspectives. Additionally, as the framework positions equipment as something to be *attuned* with for some *in-order-to*, emerging practitioners may come to see their practice as being characterised by the their *in-order-tos* and therefore how they are *attuned* with the equipment, rather than as being associated with the use of a designated set of project management tools and equipment.

6. Conclusion

To recall, whilst there is widespread agreement that there are tacit aspects to project managing and these are critical for project success, we identified that there are currently limitations with both the soft-skills paradigm and phronesis discourse. We argued that we need a practical framework for exploring the tacit in project work to further expand the empirical work in this area. Also, that we require alternatives to the body of knowledge process and lifecycle approaches to create educational experiences that prepare students for the complexity of project work. Reflecting the ‘lived experience’ and critical project management agendas, we drew on Heidegger and his concept of *comportment* coupled with empirical data from the ‘lived experience’ to address this matter of concern. In response to RQ1, the study has successfully developed a conceptual framework that can be used in future research for studying the tacit aspects of project managing practice. The framework highlights that it is in the *attunement* with equipment for the purpose of achieving a necessary *in-order-to* that a project manager's tacit knowledge can be found. In regards to RQ2, this study has found that the sampled project managers share five modes of *comportment* in their practice. These were:

- To see – to understand what has and is happening
- To think - what might happen and should happen
- To share - what should happen or is happening
- To steer - what should happen
- To impress - I know what I'm doing

Whilst these *comportments* were common across the study participants, the specific equipment associated with the *comportments* differed across participants. There were also differences in how project managers *attuned* with equipment.

6.1. Limitations

There are some limitations to be noted when considering the study's results and discussion. Notwithstanding that generalisability of results can be overrated (Flyvbjerg, 2006), if generalisability of the five modes of *comportment* is sought an expansion of the study sample size and its diversity is required. The results of the study could also be further validated through a consultation with the research participants regarding the perceived alignment of the proposed five modes of *comportment* with project managers' practice experience and using alternative research methods to provide triangulation of the project manager's perceptions of their actions in practice. The *comportment* framework could also be

further validated through additional empirical data collection which utilised various data collection methods for triangulation. However, it is argued that this framework is not developed solely from the empirical data of this study but also through scholarly development of ideas that are an established philosophical concept (i.e. Heidegger's *comportment*).

6.2. Future research opportunities

The noted limitations derive future research opportunities. Firstly, the limitation of an inability to generalise the results could be overcome by undertaking this study with a larger and more diverse sample of project managers. Secondly, there is an opportunity to undertake this study for other professions to identify similarities and differences in *being* a project manager compared to other related professions. Future research could also consider what type of people are drawn to the *comportments* of *being* a project manager. There are also the various future research opportunities that are made possible through the development of the framework itself and identification of the five modes of *comportment*.

6.3. Final word

This study makes important contributions relating to the tacit aspects of project managing. Firstly, is the contribution in providing a framework grounded in Heidegger's concept of *comportment* for examining the tacit aspects of practice. The second, is in identifying five modes of *comportment* that are used by the sampled project managers in their work. In terms of the *comportment* framework we provide a nuanced way to discuss practice and the way these project managers *attune* with equipment. Theoretically, in terms of the extant literature on soft-skills, this highlights the tacitness in *attunement* with equipment across both so-called soft-skills and hard-skills. In terms of being able to explore the concept of phronesis further, the framework provides a practical research tool that can be used in empirical studies drawing on this concept of practical wisdom. The five modes of *comportment* highlight how and why equipment (tools) are used and helps us understand the similarities and differences of project managing in different contexts. Furthermore, they provide an agenda for future equipment (tool) development. In terms of practical contributions, the framework provides an alternative to the body of knowledge process and knowledge areas for providing project managing education and training. The study has made an important contribution in advancing the discussion of the tacit aspects project managing and we propose this will be of great value to those who acknowledge the phronesis of managing project work.

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