

PROMISE-BASED MANAGEMENT AS AN ENABLING FACTOR IN LEAN CONSTRUCTION – TOWARDS A CLARIFICATION

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ABSTRACT

The question of who we are in the world and how that question impacts on all discussion, or perhaps the ontological situation, is the starting point of the issues to be addressed in this paper. The width and the scope of the issues are so vast as to invite mistaken or unsatisfactory outcomes; however, the nature of construction, which might be described as the most concrete of real world situations, demands study in order to better understand what must be done to produce successful projects.

From a survey of ideas found in post-enlightenment philosophy, we propose to explore some ideas found in the work of Fernando Flores and others, and to form a foundation from which we can address the question of how the structure of business communication can be clearly applied to that of construction. It is not so much that a specific philosophy or even philosophical approach should be applied to construction, as providing “useful ideas for practice” as suggested by Charles Spinoza

These ideas can be gleaned from various sources both ancient and modern: from Aristotle’s metaphysics, to Charles Taylor and his championing of Herder’s expressivism as an antidote to Cartesian rationalist designative theory. The luxury we have, which shouldn’t be underestimated, is the ability to be eclectic and if an idea will function then we can own it for our specific problems and issues, as addressed in Lean Construction.

This paper will draw on papers delivered at previous Lean Construction Conferences by Howell, Macomber, Senior and others and merge their contributions to overlay them onto a new philosophical perspective.

KEY WORDS

construction, management, lean, philosophy

INTRODUCTION: WHAT IS WRONG IN CONSTRUCTION?

In their paper “Rethinking Communication in Construction” Wikforss and Löfgren (2007 p337) state:

In recent years it has been identified that some of the fundamental components contributing to the construction industry’s poor performance are its ineffective communication practices, its organizational fragmentation and lack

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of integration between design and production processes.

This prompts a review of these issues from the writings of certain twentieth century philosophers.

The business management model ‘Promise-Based Management’ that looks at how commitments are made and the thinking behind the making and the keeping of promises suggests a restructuring of management that will focus on the promise-fulfilment axis and its ability to answer questions related to practice. We propose to study the usefulness of this in the world of construction. According to Sull and Spinoza (2007) a core element of the existence of every company is a “network of promises”. The challenge set to successful managers is the management of impacts caused by a broken or poorly-crafted promise. This appears to be a pragmatic approach to the social and practical networks that are required, firstly for successful social interaction and then a successful and executable theory of management.

The ‘holy grail’ of management might be described as a flexible organizational approach that brings those to be managed into a sense of ownership, as well as well-being in the task set and done. Whether we describe such a process as ‘lean’, ‘agile’ or ‘quality’, the outcome for the successful manager will be not just a product but a workforce that invests in the network that is being described as ‘promise-based’. As Sull and Spinoza describe, those being managed *buy into the company’s overall mission and priorities* and rather than treating failure with recriminations and acrimony, they approach such eventualities as merely an *imperfect understanding of how to make effective*

commitments. Like all good ideas, there may not be anything particularly original in the approach described. However, the concepts involved may have more depth of thought than appears at first glance.

THE PHILOSOPHIC TURN IN LEAN CONSTRUCTION

After acknowledging the communication issues in construction, we aim in our paper respectfully to add clarification to some of the references to Language Action theory and the use of certain concepts in IGLC proceedings.

Traditionally, philosophers have tried to see the world in an abstract, yet clear sense. Philosophers of language have divided their discipline into language about the world as, for example, in descriptive and representational utterances and language about the mind, as in expressive thought. There has been a laudable effort over the years to apply some of the ideas of philosophy to the discussion of IGLC. With gathering momentum the various contributions to IGLC conferences, including Senior (2007), Kagioglou and Koskela (2005), Macomber, Howell and Dean (2005), Macomber and Howell (2003), Vrijhoef, Koskela and Howell (2001), have looked to philosophy to seek a unifying theoretical approach to construction.

Our paper is an attempt by establishing the link between the use of Heideggerian concepts and the work of Martin Heidegger and his interpreters. To understand a philosophy it is necessary to make explicit those links with the philosopher in question. It is good practice for any enquiry that claims to be philosophical to ask certain

questions about the essential nature of that enquiry. Is a philosophical approach necessary to every subject or can a subject be taken seriously without some thought being given to philosophy?

With acknowledgement of the work of Fernando Flores, previous researchers have looked at Language/Action or Speech Act theory as useful to understand issues of communication in management and work. Speech Act theory or the Language/Action perspective introduces the notion of the force of an utterance. John Langshaw Austin (1911–1960) challenged many accepted theories of linguistics and the descriptive/performative frame. In his seminal essay “Other minds” (Austin 1961) he describes thoughts, feelings and sensations as *other creatures* and makes the important observation that the two questions:

“How do you know?” and “Why do you believe that?”

Take on a different use if the “How” and “Why” are swapped to make the interesting set of questions:

“Why do you know?” and “How do you believe that?”

It is from this background that he undertook philosophical investigations which focused on the background to the issues of how requests and promises are made. From that work the central assertions of ‘Promise-Based Management’ are found. As Austin points out later in the same essay:

If you are aware you may be mistaken, you ought not to say you know, just as, if you are aware you may break your word, you have no business to promise.

Although an obvious truism, in the light of many anecdotal accounts of how things are said and done in construction, this is surely a good place to start.

Flores and his various co-authors give us encouragement by being eclectic in their philosophical sources. At several points in his work with Winograd on communication in the office (Winograd and Flores 1986), their reliance on both British and continental philosophy is acknowledged. In the fifth chapter of the theoretical introduction, “Language, Listening and Commitment”, the work not only of Austin but Gadamer, Maturana and, for the purposes of this paper, Heidegger are referred to. The interesting development with reference to Heidegger, is the concept of the world being encountered as something lived in, worked in and acted upon. Very near the surface of the writing are the Heideggerian themes of *Breakdown, Mood and Disclosure*.

That which is not obvious is made manifest through language. What is unspoken is as much part of meaning as what is spoken. (Op. Cit., p58).

Flores and Winograd employ Austin and Speech Act theory as an approach to meaning on a social, rather than a purely mental approach. Utilizing Heidegger and Heideggerian themes, with an intellectual acknowledgement of Habermas and the issues of cultural agreement, the *Thowness* (facts seen as phenomena) of Being is put in the centre as an essential feature of language activity. Heidegger’s novel use of the phenomenon of *Breakdown* in that structure only becomes visible when there is some kind of breakdown.

Flores’ more recent collaborators have restructured the arguments with

their intriguing work reflecting more of the insights of early twentieth century existentialist thought than the dry linguistic analysis of John Austin's Oxford (Spinoza, Flores, et. al. 1997). Not everyone would share John Searle's enthusiasm for linguistic philosophy when he writes about the complexity of the subject of language and linguistics:

Kant did not bother to think about such things because in his era philosophers were obsessed with knowledge. Much later, for a brief, glorious moment, they were obsessed with language. Now this philosopher at least is obsessed with certain general structural features of human culture. (Searle 1995)

We must therefore speculate on the interactions resulting from the Oxford reserve of John Austin combined with the rather more complicated world of Marburg, Freiburg and the German phenomenologist tradition, and that giant of twentieth century thought Martin Heidegger. These do not sit easily within one argument!

HEIDEGGER AND HIS WAY OF THINKING

Following the First World War and what might be called a loss of innocence, there was also space for new ways of thinking. So the way was clear for a young assistant professor at Marburg in Hessen to produce not just a new contribution to the world of academic philosophy but to how philosophy would be done in the coming century. In Volume 8 of "Jahrbuch für Phänomenologie und phänomenologische Forschung" one half of the number is "Being and Time, first half" (later re-published and translated – see Heidegger 1978). The other half of the number is an article

by Oskar Becker entitled "Mathematical Existence" (also in Becker 1927), which may well have been the choice for reading by an audience of engineers and construction theorists. However, it is the contribution of Martin Heidegger that interests us here.

Heidegger was tired of much of the apparent idle speculation of his philosophical formation and he wanted to reintroduce, as he claimed, the concept of "Being" as the central study of philosophy. For him the apparent conflict between historical particularity and scientific truth disappear if we attempt to clarify who we are in the world and how we are in the world. DASEIN or 'being-there-ness' was his way of explaining our place and how we come to be thrown into existence. Heidegger had chosen a hard task since he flies in the face of much that is received wisdom in the western philosophic canon. He questions the whole dichotomy between mind and the world, the subjective and the objective, as not being necessarily so. Herein lies Heidegger's original contribution and his challenge to received Cartesian dualism that presumes thought is prior to language and conceiving prior to judging. The fact that this is the tradition in which most of us have been formed that words are external conventional signs of independent private mental events makes it difficult for us to appreciate just how surprising Heidegger's work is. At the centre of his thought is the need for self-transcendence in the encounters we make in the world in which we are. Perhaps we might claim him as the philosopher of the "real world" in the face of the sceptical reaction many pragmatists have when

they think they are hearing speculative philosophical theory.

Why Martin Heidegger may be a cue to the search for a coherent theory in construction is precisely because he held in his groundbreaking work that philosophy was too important to be kept to the dry realms of academics and theorists who avoid the messiness of what is real in lives and then how they are in the world.

THE BUILT ENVIRONMENT AN EXISTENTIALIST REALITY

So in our discussion we attempt to stand or perhaps balance on the sometimes shaky foundations of modern existential philosophy. Oddly enough some of the leading proponents of this way of thinking have been exercised by the rise of the technological age and the implications of how we are in the world as well as who we are in the world. The idea that the world is an instrumental system that derives its unity and meaning from an organizing concern, itself a major existentialist theme “*Angst und Sorge*”¹, is one that can easily find relevance for the world of technology. Immediately in these proceeding sentences we have deviated from the idea of *who we are in the world* to the familiarly modern idea of there being different worlds in the unified whole we encounter as the world.

Much that makes up the planet is man-made, including some negative impacting factors such as the phenomenon of global warming and the by-products of pollution, and much is only understood from the perspective of a person-centered approach. To play on words, we use

the idea of production and manufacture involve *things being brought forth and things being made by hand*. The instrumental systems that make up the world can confront us as manufacture and cultivation opposing the system of *wild nature*. The existentialist tradition chooses the idea of world from its basic etymological root of *weor* meaning *man* and *old* meaning *age or era*. So, when we talk of world we originally mean “the era of man”. As the era of man becomes more and more cultivated and manufactured, our surroundings should take on the form of being an extension of man. Therein lies the question for construction in general and *Lean* in particular.

A recent enquiry about a forthcoming ‘Workshop on Philosophy and Engineering’² invited contributions in the three areas of Philosophy, Ethics and Reflections of Practitioners. Obviously, conference administrators have a job to do, and to get the right people in the right place is one of them. To *be in the right place* is part of the existentialist agenda for authentic living and how to *be in the world*. The concern, to look forward in Heideggerian mode, is that practitioners might be kept away from philosophers. Even more of a concern is that ethicists might be closeted together away from the empirical observations of practitioners. Even more alarming perhaps is the removal of ethics from the discussions of philosophers. All these things might lead to a *breakdown* both in communication and action following any workshop but the administrators

² Royal Academy of Engineering” (November 10-12, 2008, <http://www.illegal.uiuc.edu/web/wpe>)

¹ *Sorge* – Care, concern, sorrow related to the contingency of an individual’s existence.

might believe that they have achieved success, provided the *breakdown* doesn't appear to any of the participants.

Our paper is an attempt to examine these apparently necessary walls of constraint in pursuit of a theory of construction and a language for business in construction. In fact to look at breakdown not as something wholly negative but taking the existential line and to see what breakdown makes visible or discloses. In looking at previous contributions to IGLC discussions we intend to look to Heidegger in particular, and existential thought in general, for useful ideas for practice as a step towards a coherent theory in construction. In looking to Martin Heidegger and his thought, particularly about breakdown and mood, we hope to bring some clarity to the search for a theory in construction and to recognize the interrelated areas of philosophy and practice.

Senior (2007) explored the 'Implications of Action theories to Lean Construction Application' and for the philosophically tuned ear caused some chimes of recognition. He points out that a *Situated Action* model highlights imperfection 'due to the limited information visible to any planning agent'. His continued discussion references the work of Martin Heidegger, specifically *breakdown and how routine artefacts, cultural or physical are 'invisible' to their user until a disturbance makes them 'visible'*.

Vrijhoef, et al (2001) again counsel alternative thinking to bring about an understanding of construction supply chains with reference to the question of the language/action paradigm and the work of Winograd and Flores. The issue of breakdown in communication

or conversation is highlighted for focus. The background of speech/act theory comes to the fore in sentences such as: *At the core of this communication process is the performance of linguistic acts that bring forth different kinds of commitments.* The shadow of Heidegger again looms and his reintroduction of pre-Socratic thought in his ground-breaking contribution to twentieth century thought 'Being and Time'.

Heidegger and his thinking should come with a caveat, since certain philosophical traditions have been more than critical of his way of thinking and writing. Some of his life choices have brought certain levels of opprobrium upon him and in his lifetime made his situation less than comfortable (see Ferguson 2006 p243). Ayer (1980 p47), whilst describing the postulation of real non-existent entities as resulting from superstition, had the following to say about Heidegger in his manifesto of Logical Positivism:

To this error must be attributed, not only the utterances of a Heidegger, who bases his metaphysics on the assumption that 'Nothing' is a name which is used to denote something peculiarly mysterious, but also the prevalence of such problems as those concerning the reality of propositions and universals whose senselessness, though less obvious, is no less complete.

More recently, and probably influenced by the impact of 'Being and Time' since 1927, Roger Scruton expresses similar reservations though in a more generous manner:

'Being and Time' is a formidably difficult book – unless it is utter nonsense, in which case it is laughably

easy. Not being sure how to judge it, and having read no commentator who even begins to make sense of it, I shall content myself with mentioning some of its themes". (Kenny 2000 p 248)

Our reading of Heidegger, perhaps rushing in where a Scruton would fear to tread, owes much to the influence of Hubert Dreyfus and his collaborators in the Philosophy department of the University of California at Berkeley.

This paper is a commendation of the thought of Spinoza, Flores, and Dreyfus (1997) and their challenging work, 'Disclosing New Worlds, Entrepreneurship, Democratic Action, and the Cultivation of Solidarity' which draws on the philosophical tradition of Heidegger through the interpretation of Hubert Dreyfus. For them, worlds are disclosed and, rather than *the era of man*, they prefer Heidegger's *worldhood* - a totality of interrelated pieces of equipment - or, as Spinoza has it, 'an equipmental totality'. We are to be history-makers in the domain of our existence and there is a definite approach to practice that might be encouraging to our field of Construction. In fact, it is often from the language of construction and technology that much of the writing takes its examples. On more than one occasion *The Hammer* and its operations is used as an exemplar for action and reflection.

HEIDEGGER AND HIS WAY OF BEING

Hubert Dreyfus (1991) in his commentary on 'Being and Time' relates the idea of *breakdown* to that of disturbance. He asserts that Heidegger's basic point is that mental content arises whenever the situation requires deliberate attention. John Searle commented, more neutrally,

that intentionality rises to the level of skill. Heidegger's emphasis was more on the specific experience of *breakdown*, that is, on the experience we have when ongoing coping runs into trouble. So Dreyfus constructs a simple sequence of events (Dreyfus 1991 p70 ff):

1. Ongoing activity is held up
2. New modes of encountering emerge
3. New ways of encountering are revealed.

He then outlines Heidegger's three modes of disturbance or breakdown:

A. Conspicuousness – Malfunction

B. Obstinacy – Temporary

C. Obtrusiveness – Total breakdown

If, in the ontology of Dasein, we 'take our departure from a worldless "I" in order to provide this "I" with an object and an ontologically baseless relation to that object, then we have presupposed not too much but too little. (Heidegger 1973 p 363)

What becomes visible now in Dasein impinges upon how we speak and so we can establish a link to the force of an utterance and Speech/Act theory. In acting transparently we make a promise and so, in practice I learn from imitation and become what Dreyfus calls "The Master of Promises". That is, the rule understood and presupposed is one must keep one's promises. This is a *ceteris paribus* (*all else being equal*) rule. In the case of an unfulfilled promise, there are allowable excuses. *Ceteris paribus* conditions presuppose shared practices and background and can therefore be called an aspect of everyday transparent ways of coping.

Understanding is not in our minds but in Dasein (our engagement with the world). Therefore, deliberative activity remains dependent upon Dasein involvement in a transparent background of coping skills. Here we have an important aspect of breakdown and understanding, in that temporary breakdown calls forth deliberative action and thus introduces *mental content* but only in the back ground of non-mental coping. For Heidegger intentionality seems at first sight something trivial but there are two common errors in this misinterpretation of Heidegger: first, erroneous objectivising; and, equally fallacious erroneous subjectivising. Heidegger hints at the complexity of “intentionality” by stating:

‘Intentionality is neither something objective nor something subjective in the traditional sense’. (Op cit p.313-4), and:

‘the available is not thereby just observed and stared at as something occurrent; the occurrentness which makes itself known is still bound up in the availability of equipment. Such equipment still does not veil itself in the guise of mere things’. (Op cit p104)

To say “The hammer is too heavy”, attributes to the being of the hammer conceptual frames of *too heavy, unbalanced, broken*, etc. The philosophical tradition has a great deal to say about properties and predicates that denote them; it has nothing to say about such situational characteristics.

In considering total breakdown or *obtrusiveness*, there is a transition from inward deliberation and its concerns to theoretical reflections and its object. For Heidegger there are two distinct modes of *just looking*:

- Gazing with curiosity for the sake of distraction
- Observing with wonder that leads to theory

‘Occurrentness’ is then a new way of being. Dreyfus maintains there are three main points that Heidegger wants to stress.

1. It is necessary to get beyond our practical concerns to be able to encounter mere objects.
2. The “bare facts” related by scientific laws are isolated by a special activity of selective seeing rather than being simply found.
3. Scientifically relevant “facts” are not merely removed from their context by selective seeing; they are theory-laden – i.e. recontextualized in a new projection. (Dreyfus 1991 p81)

For Heidegger there is an emphasis on scientific skills and theory in producing Dasein. It might appear, as Husserl objected to “Being and Time”, that here Dasein is objectified. But again we encounter Heidegger’s new way of interpreting Being-in-the-world and a “thematic consciousness” that is an “everyday noticing” and “pointing out”.

THE AFFECT OF MOOD

Heidegger also has much to say about mood, but care again has to be taken as to how we understand his view and how it relates to his whole way of describing the world. His writing on Mood falls within his understanding of “affectedness”. Mood is the way we react to the question “How do you find yourself?” and answer to the common question “How are you doing?” Dreyfus describes it as “Where-you’re-at-ness” in an attempt to replicate

Heidegger's complicated style of creating his own language for *Being*. This is important, particularly for our quest for a clear theory to advance practice in construction.

In their paper *Linguistic Action: Contributing to the Theory of Lean Construction* (2003), Macomber and Howell introduce the idea of mood, particularly the physiological and linguistic way mood can be seen to affect the work of the team. This is another way in which the approach of Heidegger might be helpful in treating mood as something public and assessable, rather than the usual presumption of mood being a private mental state. This concept of mood is useful in that it can be used to identify what others might describe as "The culture of a company" and its *Being-in-the-world* (Dasein). Heidegger addresses this issue in explaining that, for the pre-Socratic Greeks, the beginning of philosophy is wonder, whilst for his contemporary philosophers it is fear. At the centre of most existentialist thought is the angst of the human condition as the person faces the finitude of being, which is always at the background of most existentialist discourse. From Kierkegaard's *Fear and Trembling* to Kundera's *Unbearable Lightness of Being*, the question of meaning and being is almost always considered in the face of the abyss.

Macomber and Howell approach this when, in their consideration that *Mood Shapes Possibility*, they take a Heideggerian turn in describing:

"A mood of dread may coincide, for instance, with the recognition that it is necessary to fire an employee".

CONCLUSIONS

Can Martin Heidegger and his way of thinking give a clue to a more theoretical approach to construction and contribute to a more systematic approach to the way things are done?

It certainly was his intention in endeavouring to recover the philosophy of *Being* in the last century to help other disciplines to be more grounded in their workings. Since that time many of the genuinely influential thinkers of the age acknowledge that much of their work owes its origins to Heidegger's original work. Three of the fields that owe such a debt are: Sartre's criticism of traditional psychology and ethics; Derrida's programme of deconstruction; and Bonhöffer, Buber, Bultmann and Tillich's programme of demythologising religious belief.

These are all very theoretical and appear highly academic. Heidegger himself might have been disappointed by the rarefied nature of much of the speculation in these areas. We are suggesting that it is possible for a crossover to be made to the world of construction today, particularly the issues highlighted at the start of our deliberations; those of communication, organization and designing of processes. Later in their paper, Wikforss and Löfgren ask:

"How can a planned, mechanistic approach to systems be combined with a flexible, dialectical one so that it enables appropriate communication practices between interacting project members, as a complex project demands?" (Op cit p342).

Perhaps the evolution of *Promise-Based Management* and the examination of theories of commitment and communication guide

us in a direction to answer their question. In beginning to research *Promise-Based Management* and its potential to help in the issues highlighted by Lean Construction we have found ourselves in very unlikely places, and today we have glanced at one of the influences behind Fernando Flores and his co-authors.

In discussion with one of these, Charles Spinosa, (Spinosa and Cleary 2008), much of the conversation ranged around the influence of Heidegger and management theories. *Coordination Waste* became a focus with reference to the issue again of *Breakdown* making processes visible. Reflection on how that waste is eliminated leads you to a philosophical understanding of how promises and requests are made and managed. If *Mood* is public and assessable, we are encouraged to put in place strategies that don't just describe the climate of

the company but discover underlying systems that we loosely imagine to be the *culture*. So we don't just fix something going wrong on a project but we obtain an overview of how certain situations come about that lead to wasteful practices and how it comes about that we cannot see the precise situation as it arises.

More time might have lead us to a discussion of *Disclosure* and a few more influences on Flores, Dreyfus and Spinosa – and the tantalizing hint of the influence of Charles Taylor and the importance of Johann Gottfried Herder for the ideas of *Promise Based Management*. These are areas for future research, as is the way in which these philosophical premises can support the better understanding of current lean construction theories and practices and improve them.

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