TOWARDS A CRITICAL RESEARCH AGENDA IN CONSTRUCTION MANAGEMENT

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ABSTRACT

The case is made for a critical research agenda in construction management. Construction best practice is too often limited to the domain of instrumental rationality with little attention to the underlying processes of social construction. The formulation of best practice is analysed from a critical perspective. Previous critiques of process improvement, lean construction and partnering are summarised and common themes identified. The accepted best practice literature is found to be highly selective in appraising the available evidence. From a critical perspective, all such improvement recipes seek merely to make others more efficient in serving the interests of the dominant management elite. There is no consideration of the externalities that lie beyond narrow definitions of technical efficiency. Industry leaders continually call for 'attitudinal and cultural change' whilst advocating management recipes that reinforce the construction industry's dominant culture of command and control. Senior industrialists exert an insidious pressure on universities to generate outputs that are 'relevant' to the needs of industry. The result is an inevitable conservatism whereby the only research that is valued is that which preserves the status quo. Critical research is seen to provide an alternative lens through which to gain insights into a multi-dimensional reality. Different aspects of organisational reality are accentuated by different research methodologies. The development of a critical perspective offers a persuasive explanation for the current lack of balance in the best practice literature. However, as with all research methodologies, it is important to maintain an awareness of the associated assumptions. Counter-criticisms are therefore acknowledged and a number of partial rejoinders are offered. Ultimately, the credibility of universities as centres of independent research depends upon retaining a 'critical distance' from industry leaders.

KEYWORDS:

Research; best practice; process improvement; lean construction; partnering.

INTRODUCTION

Recent years have seen a significant growth of critical perspectives within mainstream management research (e.g. Alvesson and Willmott 1992; Deetz, 1994). Such sources draw from the traditions of critical theory (Habermas, 1978; Held, 1980) to challenge the accepted conformity as advocated and imposed by powerful vested interests. Many critical management researchers are influenced by postmodernist organisational writers who argue that reality is shaped by language (Hassard and Parker, 1993; Grant *et al* 1998). Critical research is characterised by a tendency to consider management issues in a wider cultural, economic and political context. For example, Legge (1995) emphasises the need for a wider contextual understanding of human resource management (HRM). Linkages are made to the rhetoric of the enterprise culture and the global marketplace. Notions of “customer sovereignty' and 'quality' are seen to shape employees' self-conceptualisations and therefore the reality of the workplace. Critical sources are further characterised by a tendency to place management in a historical context. For example, Hampson *et al* (1994) consider the role of the United States occupying forces in formulating Japan's 'consensus model' of post-war industrial relations. Such critical contributions have enriched the business school environment and serve to make academics much less accepting of prescriptive improvement recipes propagated by management

gurus. They also emphasise that management ideas are embedded in the ideologies that reflect and shape modern society.

CONSTRUCTION BEST PRACTICE

There is little evidence of critical research within the construction management community. This is especially true within the context of 'best practice', as advocated in the UK by bodies such as the *Construction Best Practice Programme* and the *Construction Industry Board*. Improvement recipes are invariably assumed to be neutral whilst progressing the allegedly common cause of improving efficiency. Construction industry practitioners are repeatedly cast in the role of recalcitrants who maintain an ‘adversarial culture' in the face of supposedly shining examples from other industries. Everything would be so much better if only the construction industry would implement improvement recipes such as lean production, partnering and business process engineering. Industry leaders have seemingly already decided that such recipes are advantageous. The task of researchers is increasingly limited to confirming the existing views of senior industrialists. Public-funding agencies support the dominant industry world-view by insisting on outputs that are 'relevant to the needs of industry'. The result is an inevitable conservatism whereby the only research that is valued is that which preserves the status quo. Far too much research starts with the assumption that the advocated improvement recipe has already been successful in other industries and the only issue of concern is how it can be applied to construction. The fact that the construction industry is embedded within the same society as other supposedly 'less-adversarial' industries is rarely acknowledged.

Despite significant public funding for bodies such as the *Construction Best Practice Programme*, the concept of 'best practice' is problematic and defies simple definition. Notions of transferability between industries and countries are even more problematic. Rarely is the need for critical self-reflection and an ability to challenge the accepted conformity given explicit recognition. Best practice is more often conceptualised in terms of an uncritical application of prescriptive management techniques. Such prescriptions rarely stray from the domain of instrumental rationality in that they are invariably concerned with the most efficient means of achieving a given end. Economic externalities such as traffic congestion, pollution and the human cost of regressive management regimes consistently fall outside the adopted frame of reference. Best practice is shaped (and judged) by the rhetoric of the marketplace.

A CRITICAL INTERPRETATION OF BEST PRACTICE

Morgan (1986) advocates that different insights into organisations can be gained through the use of different metaphors. The dominant metaphor that lies behind best practice is that of the machine. Organisations are conceptualised as goal-seeking ‘black boxes’ which consist of reproducible and interchangeable parts. By extension, the industry's problems are seen in terms of impediments to machine efficiency. An alternative model of organisations is provided by the political metaphor (Clegg, 1989; Pfeffer, 1981). From this perspective, organisations are characterised by vested interests jockeying for power and rewards. The extension of this metaphor to the industry level emphasises the role of vested interests in shaping the best practice agenda.

Research informed by a critical perspective accentuates different aspects of reality to those normally considered. It acknowledges that subtle political processes influence the numerous committees that shape the best practice agenda. Whilst such committees may not act deliberately to further their own corporate goals, it is not unreasonable to suggest that they avoid making recommendations that threaten their vested interests. Such an analysis serves to explain why prescriptions of performance improvement rarely stray beyond the domain of instrumental rationality. 'Best practice' is inevitably conservative and is primarily judged by the extent to which it serves the interests of the technocratic elite. From this perspective, current industry leaders are unlikely to challenge significantly the status quo. Far better to impose a regime of management-by-stress whereby employees are constantly under pressure to meet ever-increasing efficiency targets. The rhetoric of best practice is frequently heavy in

the machine metaphor whilst exhorting others to be more efficient. Even supposedly enlightened practices such as teamworking, partnering and total quality management are ultimately judged in terms of their contribution to cost efficiency. Advocated best practice therefore reinforces the dominant way of thinking whilst protecting the interests of the managerial elite. Critical research seeks to expose the role of such vested interests in shaping the industry's dominant discourse, and hence the reality of managerial practice in the construction industry.

The author has to date published critical perspectives on three aspects of the construction best practice programme in the UK: (i) process improvement (Green, 1998); (ii) lean construction (Green, 1999a and 1999b); (iii) partnering (Green, 1999c). Each paper self-consciously adopts a critical perspective and deliberately sets out to challenge the accepted conformity. In each case, the argument is made that improvement recipes commonly accepted as 'best practice' are regressive in nature whilst serving powerful vested interests. It would be ridiculous to claim that vested interests are the *only* forces at work. It would however be equally ridiculous to argue that the parties that populate the committees that shape best practice are motivated entirely by altruism. Prior to reflecting further on the theoretical justification for critical research, it is appropriate to summarise the three critiques published to date. Far from being models of enlightened best practice, it can be argued persuasively that they share a common philosophy of command and control.

PROCESS IMPROVEMENT

The critique of construction process improvement is directed towards the uncritical acceptance of the discourse of business process re-engineering (BPR), despite convincing research evidence that the majority of BPR initiatives fail. According to Mohamed and Tucker (1996) 'many industries worldwide have found…..BPR to be an effective approach in achieving dramatic improvements in production time and cost'. McGeorge and Palmer (1997) suggest that 'reengineering has the power to change the very structure and culture of the industry'. The UK's Construction Industry Board (1996) suggests that BPR should form part of the industry's ongoing programme of continuing professional development. The *Building for Growth* report (Commonwealth of Australia, 1999) is equally convinced, citing process re-engineering as an essential element of process innovation. That BPR has a sound basis and has been successful in other sectors is seemingly taken for granted. If the overblown hype of Hammer and Champy (1993) is disregarded, the evidence in support of this assumption is highly dubious. Grint (1994) and Micklethwait and Wooldridge (1997) both cite a BPR failure rate of 70%. Given its vague and ambiguous nature it is unclear what distinguishes BPR from other management improvement recipes (Jones, 1995). Empirical research by De Cock and Hipkin (1997) concludes that BPR only differs from TQM in terms of the rhetoric in which it is presented. It is therefore difficult to detect any rational reason for the endorsement of BPR by industry leaders.

The enterprise culture

An alternative explanation is that industry leaders advocate BPR because it exhorts *others* to be more efficient. The rhetoric of BPR resounds with the simplistic machine metaphors of Taylorism (Conti and Warner, 1994). The overriding assumption is that complex organisations can be subjected to an 'engineering fix'. Decades of organisational research are rejected in the cause of a 'radical new beginning'. Gurus such as Hammer and Champy (1993) deliberately play on the insecurity of middle managers. The underlying message is that those who do not become advocates of BPR will become its victims. The language of BPR resonates with that of the 'enterprise culture' which became dominant in the English-speaking world during the 1980s and early 1990s. Pluralistic models of management were rejected by an industrial relations policy that treated labour solely as a variable cost (Legge, 1995). The prevailing political climate made strategies based on 'cutting out the fat' much more socially acceptable than would have been acceptable in previous decades. The rhetoric of BPR is therefore embedded in a wider cultural, economic and political context. The dominant shaping ideology is neo-liberalism. The underlying belief is that simply addressing 'competitiveness' and 'technical efficiency' can solve problems. The needs of big business are considered paramount in the belief that the benefits will 'trickle-down' to other levels of society. This belief remains remarkably intact despite

considerable evidence to the contrary. Chief executives and senior managers continue to derive significant benefit through enhanced salaries. The rhetoric of BPR serves to protect their privileged position whilst imposing a management regime of command and control onto others.

LEAN CONSTRUCTION

The phenomenon of lean production shares many of the characteristics of BPR. Lean production comprises a complex cocktail of ideas including continuous improvement, flattened organisation structures, teamwork, the elimination of waste, efficient use of resources and co-operative supply chain management. The seminal description provided by Womack *et al* (1990) draws heavily from Japanese management practices and the Toyota manufacturing system in particular. Organisations are conceptualised as profit-making machines where success depends only upon efficiency and the needs of the customer. Womack *et al* readily admit to giving little attention to the special features of Japanese society from which lean production emerged. The advocates of lean construction also notably ignore the extensive literature which addresses the extent to which lean methods are applicable beyond the unique Japanese institutional context (e.g. Kenney and Florida, 1993; Morris and Wilkinson, 1995; Oliver and Wilkinson, 1992). The notion that management techniques can be applied irrespective of context is in harsh contradiction to the long-established principles of contingency theory (Lawrence and Lorsch, 1967). Womack and Jones' (1996) subsequent publication on 'lean thinking' shows all the characteristics of the popularised 'guru-hype' for which Western managers seem to have a perennial weakness. The evangelical nature of Womack and Jones' (1996) message is well illustrated by the last two sentences of their preface:

> *"In the pages ahead we'll explain in detail what to do and why. Your job, therefore, is simple: just do it!"*

In other words, the reader is not required to think, or to waste time reading any other books, or indeed to waste time gaining an education. All of these are considered *muda* and irrelevant to the quest for improved productivity. To reject so easily the lessons to be learned from other sources is not only naïve, but positively dangerous. At best, it sacrifices understanding for the narrowest possible construct of instrumental rationality. At worst, it represents a form of managerially based totalitarianism.

Filtering system

Despite the overblown rhetoric of Womack and Jones (1996), lean construction is recommended as an essential component of construction best practice by *Rethinking Construction* (DETR, 1998), the *Construction Best Practice Programme* and *Building for Growth* (Commonwealth of Australia, 1999). These sources provide a remarkably one-sided view of the potential for applying 'lean thinking' to the construction industry. They ignore an extensive literature that equates lean production to regressive management practices (e.g. Garrahan and Stewart 1992; Hampson *et al*, 1994; IPD 1998; Rehder, 1994; Turnbull, 1988). Industry policy makers have not only ignored this literature, but so has the research community. As with BPR, it is taken for granted that lean production possesses a sound basis and has already been successful in other sectors. This belief seems to rest entirely on the evangelical hype of Womack and Jones (1996) without reference to the wider research literature. There would appear to be a subtle filtering system at work that disregards research that does not support the pre-determined conclusion that lean construction is a good idea.

Human resource management implications

Given the severity of the industry's current recruitment crisis (Gann and Salter, 1999), it seems especially strange to ignore concerns regarding the HRM implications of lean methods. The literature warning of the potentially adverse implications of lean methods on the quality of working life is so extensive it is difficult to understand why it has been so systematically ignored. The critical literature on the Japanese model of lean production dates from Kamata 's (1982) description of how Toyota's single-minded drive for success in the 1970s was accompanied by significant personnel deprivation

on the part of the workforce. More recently, Sugimoto (1997) describes how the term *karoshi* is in common use amongst Japanese workers to describe sudden deaths and severe stress resulting from overwork. Benders (1996), Grönning (1995) and Rehder (1994) all refer to growing disillusionment in Japan amongst employees and increasing resistance from trade unions. Criticisms are not limited to production plants in Japan, but also extend to overseas transplants. Fucini and Fucini (1990) point to poor safety standards, stress of work, loss of individual freedom and discriminatory employment practices at Mazda's US production plant in Michigan. Garrahan and Stewart (1992) and Turnbull (1988) provide similar criticisms of Nissan's plant in the UK, held up as an exemplar by the Egan Report (DETR, 1998). According to Garrahan and Stewart (1992) Nissan's supposed regime of flexibility, quality and teamwork translates in practice to one of control, exploitation and surveillance. Numerous other studies have demonstrated that the implementation of lean methods leads to work intensification (Parker and Slaughter, 1998; Cappelli and Rogovsky, 1994).

Re-packaged Taylorism

There is therefore an extensive body of opinion that equates lean methods with re-packaged Taylorism. The construction industry's long-standing regressive HRM policies explain the popularity of management improvement recipes based on metaphors such as 'cutting out the waste', 'belt tightening' and 'becoming lean'. The rhetoric of improving efficiency by the elimination of waste is undeniably attractive in the short term. However, the long-term effect will be to perpetuate the construction industry's downward cycle whilst reinforcing its reputation for unrewarding careers. Long-term competitiveness and sustainability are too easily sacrificed for the sake of short-term efficiency. Whilst this perennial short-termism acts against the development of the industry as a whole, it continues to serve the immediate interests of the industry's technocratic elite. From a critical perspective, the last thing that current industry leaders need is a flood of 'empowered' employees teeming with innovative ideas. Far better to impose a regime of management-by-stress whereby employees are constantly under pressure to meet ever-increasing efficiency targets.

PARTNERING

The discourse of partnering is to some extent more subtle than BPR and lean construction. Although the tone is superficially softer, the underlying intention is equally regressive. In common with many countries, partnering has received widespread endorsement in the UK construction industry (DETR, 1998; Bennett and Jayes, 1998; Construction Industry Board, 1997). The rhetoric of partnering has much in common with the corporatist propaganda that prevailed during Mussolini's Italy (Green, 1999c). Considerable emphasis is given to 'culture' and need to base relationships on trust and understanding. There is an unspoken assumption that trust between organisations is the same as trust between individuals. According to the Construction Industry Board (1997), partnering has three essential components: (i) establishment of agreed and understood mutual objectives; (ii) methodology for quick and co-operative problem resolution; (iii) culture of continuous, measured improvement.

Pressure to conform

Success in partnering is continually linked to 'faith' and 'commitment'. Those who do not conform are labelled as 'adversarial'. According to the Construction Industry Board (1997), success 'requires fundamental belief, faith and stamina'. These are apparently much more important that any analytical appraisal of the argument. Within the UK, the large UK supermarkets have been amongst the most enthusiastic advocates of partnering. As regular clients of construction, they understandably wish to extend the control that they exert over the grocery supply-chain to the construction sector. The task force behind *The Seven Pillars of Partnering* (Bennett and Jayes, 1998) was chaired by Charles Johnston of Sainsbury's. Not surprisingly, the report makes a strong case for the use of partnering in construction. There is no hint of any criticism.

Rethinking Construction (DETR, 1998) also makes a strong case for partnering, undoubtedly influenced by the large clients that comprised Sir John Egan's Task Force. The cult of 'customer responsiveness' is so strong that the legitimacy of firms such as BAA, Tesco and Whitbread to

represent the public good is taken entirely for granted. This is despite that fact that the operations of Egan's BAA (formerly British Airports Authority) are monitored by a government-appointed regulator to ensure that they do not exploit their privileged position as a privatised quasi-monopoly.

Given the collective buying power of the aforementioned clients, it is unsurprising to find that many leading contractors also claim to be committed to partnering. To do otherwise would be to risk attracting the label of 'adversarial', thereby denying themselves access to a significant part of the UK market. This exercise of buying power is made especially clear by the Construction Clients' Forum (1998), who collectively account for some 80% of the UK construction market. The CCF document commits its members to promoting relationships based on teamwork and trust, and to working jointly with their partners to reduce costs. They also promise not to unfairly exploit their buying power, but to look to form lasting relationships with the supply side. The overall tone is one of barely-disguised seduction. However, they then issue an unveiled threat that the CCF will seek to place their £40bn worth of business with companies that conform to their ideas. It would seem that an adherence to the language of partnering is an essential pre-requisite of doing business.

Living up to the rhetoric

The promises of the big clients not to unfairly exploit their buying power remain unchallenged despite the evidence. The big supermarkets in the UK, including Sainsbury's, Asda and Tesco, have been under sustained investigation by the Office of Fair Trading (OFT) and the Competition Commission following complaints by farmers of exploitative supply chain management practices. The final report from the Competition Commission (2000) was damning in this respect. The big supermarkets were found guilty of systematic malpractice in their treatment of suppliers, who were said to operate in a 'climate of apprehension'. In seeking evidence, the Competition Commission found that grocery suppliers were unwilling to name individual supermarkets for fear of reprisals. The recommendation was that a statutory code of conduct should be imposed on the big supermarkets regarding their relationships with suppliers. The voluntary code of conduct implemented since the start of the OFT investigation was deemed insufficient. In other words, when the big supermarkets promise 'not to unfairly exploit their buying power' they cannot be trusted.

Despite the rhetoric of the Egan Report (DETR, 1998), BAA have since publicly admitted that they have not lived up to the promises they made when establishing their 'framework agreements' for partners in the construction supply chain. This admission was coupled with a plea to 'trust us, we'll try to do better in the future' (Cook, 1999). In the meantime, BAA and Sir John Egan continue to preach customer responsiveness to a seemingly gullible construction industry.

A critical reading of the case studies presented by Bennett and Jayes (1998) readily reveals the darker side of partnering. The description of Sainsbury's partnering programme begins by explaining how their property division was down-sized from 240 to 80 staff. Those who remained were then 'instilled' with the culture of TQM. The cost of Sainsbury's stores was apparently reduced by 35% and typical construction durations were reduced from 42 weeks to 15. However, these impressive achievements were not enough. Sainsbury's management have now apparently established further 'tough and steadily improving cost, time and quality targets'. It would seem that the regime of continuous improvement is relentless. The conclusion that continuous improvement equates to management-by-stress is difficult to avoid. This was the same 'climate of apprehension' that led suppliers to complain to the OFT and to the subsequent recommendation for a statutory code of conduct by the Competition Commission. It is also notable that Sainsbury's regime of partnering is equally harsh on its own staff. Those staff who did not want to be 'instilled' with TQM, or had their own ideas on how procurement could be improved, presumably numbered amongst the 160 who were 'down-sized'. Partnering, BPR and lean construction seem to be closely related. In many respects they represent slightly different spins on the same storyline. The rhetoric of 'trust and teamwork' ultimately seems to unfold as re-packaged Taylorism. The dominant management philosophy is that 'command and control'. The agenda for change serves only to preserve the status quo.

COUNTER-CRITICISMS

There are a number of common counter-criticisms that are directed at critical research. It is of course important that all research is subject to criticism. This is especially true in the case of critical research. However, too often the theoretical debate never progresses beyond simple rejection. This is to the detriment of construction management research internationally. An understanding of critical research is of central importance if researchers are not merely to replicate the thinking of industry. This section attempts to engage with some of the more common counter-criticisms. Some of them are fatuous and can be dealt with easily. Others are more philosophical and can never be entirely resolved. Ultimately, all research methodologies are defined in terms of ontological, epistemological and axiological assumptions. Nevertheless, making criticism explicit serves to explain some of the assumptions of critical research and thereby provide a richer understanding of the guiding paradigm.

Negativism

Some observers find critical research to be overly 'negative'. The argument is that research should seek to move the industry forward, rather than deconstruct the contributions of others. The critical researcher is therefore frequently challenged to provide an 'alternative' way forward. This was the essence of McCaffer's (1998) editorial comment in response to the *Technocratic Totalitarianism of Construction Process Improvement* (Green, 1998). The challenge is best answered by quoting directly from Alvesson and Deetz (2000):

> *"Research…..may aid human development by highlighting the precarious and debatable nature of knowledge rather than unidimensional and accumulative 'truths'."*

Exposure of false gurus and unfounded propaganda is seen to be an important role of the academic. Within the construction management academic community, researchers are frequently too accepting of the policy prescriptions advocated by governments and industry leaders. In the absence of critical orientation in research, academics are consigned merely to reproduce established conventions that maintain the status quo. Research into 'improving efficiency' is surely best carried out by industry. Universities have a broader responsibility to focus on the externalities that lie beyond the market.

One-sided view

Every research methodology possesses limitations and assumptions. This applies to critical research to no less an extent than to other research paradigms. Different research methodologies will accentuate different aspects of reality. Critical research is undoubtedly one-sided, but it is at least *self-consciously* one-sided. This is more that can be said for the popularist rhetoric of lean construction. The author's critical publications all deliberately emphasise the adopted critical position, making it clear that no claims are made to possess a monopoly on the truth. The underlying belief is that reality is multi-perspective in nature and that researchers must seek insights from different theoretical perspectives. A growth in critical research will serve to provide a better overall balance within the construction management community. At present, the community is far too strongly orientated to the needs of management. This orientation militates against balanced and objective insights. The discipline of construction management should be concerned with the study *of* management in the construction industry, not study *for* management in the construction industry. In the case of the three areas of best practice addressed above, it would seem that the latter view prevails.

Marxism

Some commentators associate critical research by default with Marxism. This is less of a serious academic criticism and more of a rhetorical putdown. Criticism and the growth of knowledge are firmly connected within methodology. To label all criticism as 'Marxist' is to avoid the debate and thereby limit the progression of knowledge. Whilst the Frankfurt School of the 1930s may have had strong Marxist leanings, this is not true of modern critical writers who possess no identifiable leftist leanings (Magala, 2000). Many critical researchers rely on postmodernist notions of organisation, emphasising the constructed nature of reality through language. Foucault is probably therefore a much

more powerful underlying influence than Marx. A Foucaudian approach would seek to sensitise people to the pervasive nature of power-based discourse. This is in contrast to the emphasis on direct coercion and the structural differences between capital and labour found in classical Marxism. The present author certainly feels uncomfortable with dogmatic Marxist ideologies and their reliance on underlying assumptions of rational positivism The author's primary interest is the progression of management theory through the critique of dominant forms of discourse. This is not to deny that others might find Marxism useful in understanding the limitations of current models of capitalism.

Empirical evidence

A further common counter-criticism is to challenge the empirical evidence upon which critical research is based. Bizarrely, this criticism often comes from advocates of interpretive research who themselves severely underplay the importance of facts and logic. One of the by-products of critical research is a re-confirmation of the importance of objectivity in research. Research that focuses on 'facts' rather than 'interpretation' is much less susceptible to radical critique. However, both positivist and interpretive research are capable of systematic distortion through unconscious selectivity. Given that all research methodologies possess limitations and distortions, it is important that insights are gained from different theoretical perspectives. In social science, different theories represent different ways of seeing. Rather than arguing that one research methodology is 'better' than another, it is perhaps more useful to understand different theories as different lenses that accentuate different aspects of reality. The choice of theory therefore depends upon what the researcher wants to pay attention to. The construction management community has to date neglected critical theory and therefore underplayed the importance of vested interests and shaping ideologies. It is not however advocated that *everybody* should suddenly adopt critical theory. The argument in favour of critical research should be coupled with an overriding commitment to methodological pluralism.

Returning to the theme of empirical evidence, it is notable that the majority of the arguments presented above concern the selectivity of the literature. It is a matter of *fact* that the best-practice documentation on lean construction ignores the extensive critical literature on lean methods. The argument regarding the operation of vested interests and the underlying influence of managerial ideology is presented as *one* possible explanation of why the existing literature is so highly selective. Others are welcome to provide alternative explanations, but the facts of the case cannot be ignored. Given the huge amount of public funding that supports the propagation of best practice, it is pertinent to ask where the onus of proof should lie. To criticise critical research for 'relying too much on rhetoric and not enough on evidence' is to duplicate exactly the argument directed at the construction best practice programme. Nevertheless, such reminders of the dangers of engaging solely in rhetorical argument are important. What is ultimately required is an appropriate balance between critical orientation and a sensitive interest in empirical research. Too much of the former leads to elitism and too much of the latter limits researchers to the local and the trivial (Alvesson and Deetz, 2000).

Elitism

Perhaps the most difficult counter-criticism to deal with is the accusation that critical theory is elitist. There is of course a central contradiction to an approach that assumes weakness in the reasoning powers of the very people who it hopes to empower. Critical approaches also tend too often to see dominant interest groups as coherent entities that act intentionally. The criticism of elitism is best countered by avoiding directive statements of what people *should* do. It is also important that critical researchers remain self-conscious of their adopted theoretical position and the associated assumptions. Is especially important to make clear that no monopoly is claimed on the truth and to emphasise the need for empirical research coupled with methodological pluralism. The author makes a point of ending critical seminars with the caveat: "*But whatever you do, don't believe what I tell you*". The emphasis should always be placed on empowering members of the audience to make up their own minds. This is in direct contrast to those who advocate prescriptive models of 'best practice'. The danger of conceptualising dominant interest groups as singular entities should be a constant concern to critical researchers. If such groups are crystallised too rigidly then critical thinking may indeed regress to outdated structural Marxism. The truth is that elite groups have been much more

open to new arrivals than Marxists like to admit. It is also important to recognise that elite groups may have internalised ideologies that act against their own interests (Alvesson and Deetz, 2000). For example, the continued propagation of regressive management approaches in the construction industry will ultimately reduce sustainability and long-term profitability. In this way, dominant interest groups may also derive benefit from critical research.

CONCLUSION

In contrast to the academic study of mainstream management, there is a noticeable absence of critical research within the domain of construction management. Government and industry leaders too often dictate agendas for change in the absence of any critical analysis. It is continuously emphasised that research must be 'relevant to the needs of industry'. In other words, research must reflect and continually reinforce the established worldview of industry leaders. An ongoing critical research agenda would enrich the field of construction management and serve to create a climate that is more accepting of innovation and change. A persuasive case can be made that 'best practice' is primarily shaped and propagated by power-based rhetoric. This rhetoric creates a managerial reality that is too often unquestioned in terms of its historical and social construction. Critical research aims to disrupt this ongoing process of reality construction, thereby serving to open the debate to other possibilities.

As with other research methodologies, it is important to retain an understanding of the assumptions and limitations of critical research. No research methodology can make claim to a monopoly on the truth; different methodologies accentuate different aspects of reality. The current lack of critical distance in the international construction management community makes researchers blind to some aspects of the reality of the construction industry. An increased awareness of critical research, coupled with a commitment to continued empirical research, will serve to enhance understanding and move the discipline of construction management to a higher level of academic maturity.

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