CONSTRUCTION POLICY RESEARCH: BEWARE REASON MASQUERADING AS TRUTH

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One of the defining characteristics of the modern era has been the ascendency and privileging of an instrumental version of reason at the expense of other, competing forms of rationality. Now deeply established and an integral component of Neoliberal discourse, it forms the dominant form of reasoning for many planners, policy-makers, academics and laypersons alike. Drawing on the works of Max Horkheimer and Max Weber, this paper considers the ways in which instrumental reason diminishes policy formulations and undermines democratic culture. It achieves this through a consideration of the exclusion of 'deep' green activists from policy formulation and an examination of the Capital approach to sustainability popularised by David Pearce. Recognising instrumental reason as a culturally specific value-laden ideal, this paper teases out the assumptions behind such thought and highlights the potential for alternatives. Such a realisation has important consequences, as the ability for built environment policy-makers to reimagine theory and practice becomes possible only when the veil of instrumental reason, cloaked and presented as a value-neutral ideal, is lifted. It is hoped that such a perspective will contribute to the growing theoretical and philosophical debate in Construction Management research.

Keywords: culture, democracy, instrumental reason, policy, sustainability.

INTRODUCTION

One of the defining characteristics of the modern era has been the ascendency and privileging of an instrumental version of reason at the expense of other, competing forms of rationality. A reaction against the perceived deficiencies of pre-enlightenment thought dominated by religion and tradition, an instrumental form of rationality was seen by many, somewhat ironically perhaps, as a saviour and salvation for humankind. It was thought to be the light that would illuminate the darkness in the hearts and minds of the masses. But, as came to be recognised, an instrumental reason, wholly isolated from some additional form of religious, philosophical, or ethical rationale risks treating human life as a means to an end rather than an end in itself, thus diminishing its value in the process. Max Weber (1904) lamented the rise of instrumental reason in modernity and believed it to be responsible for the 'disenchantment' of society, with scientism and bureaucracy replacing long-held beliefs and considered to remove any sense of magic or mystery from social life. More recently, Zygmunt Bauman (1991) has linked the rise of instrumental reason to the horrors of the Holocaust, believing it to be a necessary, if not sufficient, condition for its occurrence. He states that, 'At no point of its long and tortuous execution did the Holocaust come in conflict with the principles of rationality. The 'Final Solution' did

not clash at any stage with the rational pursuit of efficient, optimal goal-implementation. (Bauman: 1991: p. 17). Now deeply established, instrumental reason forms an integral part of the dominant form of reasoning for many planners, policy-makers and laypersons alike. This paper argues that the dominance of instrumental reason today, through lending itself to an increasingly hegemonic neoliberal discourse, undermines democratic culture and raises serious ethical concerns. It proceeds as follows: firstly, some background on instrumental reason and its link to policy is offered; next, a consideration of the marginalization of 'deep' green thinkers is presented; then, the 'Capital' approach to sustainability is examined; a discussion of Horkheimer's 'eclipse of reason' and the 'Citadel problem' are then further presented to problematise proceedings; some suggestions for the future are then offered and, finally, some concluding thoughts.

Instrumental reason and policy

Instrumental reason, what Max Weber referred to as the Zweckrational, '…focuses on the most effective or efficient means for obtaining some goal or desire' (Bishop: 2007: p. 90). It represents, '…a vision of the good life as a quest for mastery and control devoid of deeper or wider contextual meanings…' (Bishop: 2007: p. 93). This is often contrasted with Weber's alternative rationalities: the Wertrational (behaviour guided by values, e.g. religious or philosophical beliefs); affective action (behaviour guided by emotional states); and traditional action (behaviour guided by habits and traditions) (Bishop: 2007: p. 38). Of course, rather than being considered as discrete, mutually exclusive categories, in reality there is often bleeding and overlap between the categories depending upon circumstance and time. Drawing on Weber, Smiley *et al* (2013) suggest that a particular combination of cultural events and forces, including the standardization of time, the rise of Information Communication Technologies and a money economy, combined and contributed to an increasing predominance of an instrumental form of rationality. This now forms an integral part of the ascendant neoliberal discourse which has become our own, current, Weberian (1904) 'Iron cage'. It is important to note, however, that this 'iron cage' is intimately connected with anthropocentric Western ideals regarding the primacy of humans over nature, autonomy, individual rights and capital accumulation. As Bishop (2007) states, 'The disguised ideologies of liberal individualism and the instrumental picture of action are inherent…in policy formulation and assessment because policy-makers increasingly use the…rational-actors picture for their work (Bishop: 2007: p. 263). In its current form it would be almost unintelligible and certainly unacceptable to societies which have traditionally placed collective interests and a more holistic appreciation of human-environment interactions ahead of individual rights. The issue is that this particular type of rationality has now been spread and institutionalised by the dominant social actors of our time with organizations such as the International Monetary Fund and the World Bank entrenching and perpetuating its logic. As a result, a repeated focus and emphasis on efficiency, value for money and wealth accumulation has come to dominate construction policy discussions at the expense of alternative discourses.

With the publication of the Egan Report in 1998, following on from the start of the New Labour government in 1997, for example, there has been a particular emphasis on evidence based policy-making (EBPM). EBPM has demanded 'efficiency' and 'objectivity' and is only interested in 'what works' (Parsons: 2002). Yet, an approach such as EBPM, with its use of targets, key performance indicators and disseminations of best practice, focuses on and privileges an instrumental version of rationality, what

Max Weber referred to as the Zweckrational, and arguably assumes, '…an abstract, uncontentious, universal knowledge' (Michael and Brown: 2010: p. 11). The problem with any such attempts to turn to a positivistic stance is that it obscures the nuances and complexities of policy formulation as it is actually conducted. A more appropriate approach, perhaps, would be the Laswellian approach to policy-making and diffusion which suggests that policy is shaped by, '…power inequalities and recognised that knowledge is utterly embedded in power and value contexts and relationships' (Parsons: 2002: p. 54). From this perspective, context matters and consensus cannot be assumed. For example, in the context of debates surrounding construction reform, who decides on what an 'appropriate' target is, what 'best practice' constitutes and how, why and when such a strategy should be adopted? There are also challenging questions such as, '…whether intensity of feeling should be considered as well as the number of persons preferring each alternative (Lindblom: 1959: p. 82). Is policy to be formulated through giving each actor an equal voice or should the cries of a passionate and vocal minority outweigh those of an apathetic majority? These are not easy questions. Furthermore, how do we decide the most 'efficient' way to arrive at a given goal? The privileging of efficiency itself rests on a fundamental philosophical assumption regarding its desirability. And, as Stone (2002) suggests, even if we accept efficiency as a desirable characteristic, '…technical efficiency does not tell you where to go, only that you should arrive there with the least possible effort (Stone: 2002: p. 61). For different individuals and groups will have differing visions of what an appropriate reform is and what constitutes an appropriate direction. Contrary to the EBPM approach then, such questions and perspectives help to reveal that the processes of policy formulation and diffusion should be considered as inter-subjective rather than objective. Policy is thus better understood as a continual negotiation between social actors with varying values, goals and ambitions. More accurately, policy is defined by the dominant values which have come to be institutionalised in a society and what is often actioned upon is solely the desires and values of those in institutional positions of authority. But alternative voices, pockets of resistance to the dominant discourse, do exist and it is illuminating to consider one next.

The exclusion of 'deep' greens

That an instrumental rationality obfuscates policy formulation and undermines democratic culture is seen more clearly by considering Sorrell's (2001) critique of the reform agenda as inadequate in response to climate change and issues of environmental sustainability. He states, 'While these reforms have the potential to address many of the barriers, the reform agenda makes practically no reference to sustainability or to energy efficiency' (Sorrell: 2001: p. 1). He makes a powerful point in that many previous and current reports recommending change and reform in construction have offered little mention of environmental sustainability, certainly not for its own, intrinsic sake at least. Rather, the rhetoric of sustainability is used to maintain existing social norms and order. But Sorrell (2001) is by no means alone in questioning the reform agenda response to issues of environmental concern. Rees (1999, 2009), du Plessis and Cole (2011), du Plessis (2012), have all offered extended critiques of the construction industry's attempts at reform and sustainability. Though the construction sector has moved towards adopting more environmentally responsible behaviour (see Morton: 2008), it has arguably not been enough. It has certainly not been sufficient to appease those ecologists who conceptualise a fundamental change in the built environment in response to perceived environmental threats and impending global catastrophe brought on by climate change. There are, for example, 'deep'

greens: thinkers and activists, such as Gerzan (2005), who fundamentally reject the super ideology of industrialism and who urge for a reimagining of the relationship between humans and the environment. Their vision is one informed by a profound lack of anthropocentric reasoning and a deep and abiding respect for nature. It is decidedly eco-centric as opposed to anthropocentric. The problem, as Purnell and Freeman (2012) tease out, is that the prevailing discourse of the time, in this case a neoliberalism informed by instrumental reason, drowns out alternative voices such as this. Its,

'...closed-normative core compartmentalizes and protects its underlying narrative from a true exchange of ideas. The closed-core thus shuts down the potential for any revision of managerial narratives before a conversation even begins. In some cases the closed-normative core might be a wilful rejection of new ideas. In other cases...the notion of closed narrative core represents an unconscious blind spot that eventually become a destructive force' (Purnell and Freeman: 2012: p. 114).

It is destructive as, whether a result of 'wilful rejection' or an 'unconscious blind spot', policy thus continues down an increasingly homogenous path. Constituencies with voices which do not fit the already existing predominant narrative(s) are often unheard, marginalised and excluded, if they are heard at all. Opportunities and potential for the flexible revision and adaptation of policy is thus limited. This has important implications as, '...policies that fail to...represent interests and that confuse, deceive, or disempower citizens do not serve democracy' (Schneider and Ingram: 1993: p. 345). Even if one disagrees with those green thinkers regarding the potential seriousness of environmental concerns, there is still arguably an ethical responsibility in a democratic society to allow their views to be heard and considered fully. This is because unless we assume that power and dominance confers rights, then ethically, the alternative is to recognise the intrinsic worth and equality of disparate voices. Yet this is a voice which is often ignored and marginalised. There are seemingly no seats at the policy table for 'deep' greens. But what of a more moderate approach? It is to this that we now turn.

The capital approach to sustainability

Atkinson (2008), in an approach indicative of instrumental and anthropocentric reasoning, advocates the use of a 'Capital Approach' to conceptualising the built environment and argues that this is particularly appropriate in order to tackle issues of sustainability. The Capital Approach (popularised by Pearce: 2003) suggests that the present wealth and assets of a nation (broadly conceived), and how they are managed, will have an impact on the stock of wealth for future generations (Atkinson: 2008). It is therefore important to consider issues of capital as matters concerning the built environment, which can endure across generations, are, '...influenced by the dominance of capitalism...' (Ball: 1988: p. 43). However, not made explicit by Atkinson is that the capital approach appears to rest on a more fundamental assumption: namely, that the accumulation of wealth and assets, however broadly conceived, is a derisible end in itself and constitutes a particular vision of the 'good life'. No mention is made as to how this specific, materialist vision came about, nor why it persists at the expense of other, non-materialistic or more communal visions of society, whose narratives do not chime with the already established 'closed-normative core' (Purnell and Freeman: 2012). This is typical of policy informed by instrumental reason which, '...neglects conflict and disagreement on ends...taking as given the values of dominant stakeholders' (Sanderson: 1999: p. 329). Atkinson goes on to

suggest that, '…current changes in wealth must also have consequences for future well-being. It is plausible, then, that a decline in wealth will now lead to falls in future levels of well-being – such an economy would not be sustainable…' (Atkinson: 2008: p. 242). Whilst, this is, of course, true to an extent, it does leave a series of questions to which Atkinson gives only the briefest of mentions. Firstly, how are we to conceive of wealth and assets? Who gets to decide? And what is to be included and excluded in policy formulation as wealth and assets, and for what reason? For example, are we to include elements of the natural world, such as forests, streams, lakes and mountains? Atkinson would say yes. Yet, those members of the 'deep' greens mentioned previously might have something to say about that. They would argue that such natural assets are of a different kind, ones that should be respected for having intrinsic value, and as such, should be treated as ends in themselves rather than means. The view of natural elements as wealth and assets to be considered resources which should be shared and passed on across generations rests on an anthropocentric vision, one which prioritizes human flourishing ahead of others. From this perspective, the incommensurability of 'shallow' environmental concerns, underpinned by both anthropocentric and instrumental reasoning, and 'deep' environmental concerns, informed by an eco-centric and holistic logic, becomes more apparent. This is contrary then to Atkinson's statement that, '…there is likely to be far more complementarities between the two approaches than is commonly given credit' (Atkinson: 2008: p. 243).

Atkinson also makes no mention of power, coercion and agenda-setting in the debate surrounding wealth and assets. Following on from Lukes (1974), one can conceive that actors who already possess the majority of wealth and assets at a given point of time (whether individuals or corporate entities) would have a vested interest in maintaining such wealth, and this would arguably extend across time to their kin in a future generation, thus maintaining and institutionalising inequalities across time. To ensure this, measures ranging from outright coercion to agenda-setting and 'greenwashing' could be employed and others have already pointed out the, '…ceremonial ways that organizations can signal deep greening without actually engaging substantively in it' (Jermier and Forbes in Alvesson and Wilmott [eds] (2003): p. 171). From this perspective, significant possessors of wealth and assets may provide just enough lip-service to a cause to ensure that their own position and status is maintained, without any genuine commitment to the underlying aims (see, for example, Ness: 2010). Such actions serve as rhetorical devices which marginalise and exclude dissenting opinions, thus denying sincere conversation in the service of dominant interests. This has important consequences in an allegedly democratic society such as the UK, as, '…corporations and their executives can act…as a powerful force that undermines democratic accountability in modern Western society: the technocracy of management subverts the democracy of citizens' (Alvesson and Wilmott: 2003: p. 12). Atkinson also neglects to mention the systematic marginalization of certain groups from wealth and assets, for example, the unequal holdings of white and ethnic members, or of men and women across society. Unless we are to sustain inequalities across generations, such questions would seem to be of great ethical importance.

The Capital approach, then, rests on an anthropocentric and instrumental rational view of the world. Though presented as a beacon of hope to the sustainability movement, it is based on a narrow normative conception of how things 'ought' to be, with the environment considered solely a means for human flourishing. The potential for policy formulated by an eco-centric logic, one in which humans and the rest of nature

are equals in a majestic and holistic tapestry, is not considered. Rhetorical shields suggesting that such an approach is 'unrealistic' or 'impractical' merely act as disingenuous agents, knowingly or not, for the status quo.

The eclipse of reason and the Citadel problem

Horkheimer (1957), following Weber, was distinctly critical of the predominance of instrumental reason in modern life and its tendency to obscure potential alternatives through its hegemonic position. For Horkheimer this was the moment when the metaphorical moon blocked out the sun: the eclipse of reason. In a now classic essay, he states, in opposition to received wisdom, that,

'Mastery of nature has not brought man to self-realisation; on the contrary, the status quo continues to exert its objective compulsion. The factors in the contemporary situation - population growth, a technology that is becoming fully automated, the centralization of economic and therefore political power, the increased rationality of the individual as a result of his work in industry - are inflicting upon life a degree of organization and manipulation that leaves the individual only enough spontaneity to launch himself onto the path prescribed to him' (Horkheimer: 1957: p. 4).

It is the latter part of this quotation which is of particular relevance to our discussion. Policy making has come to be dictated by individuals with limited potentials for possible actions and only enough freedom to, '…launch…onto the path prescribed…' (ibid). Imaginations are constrained by the particular cultural zeitgeist in which they exist and thus reflect the dominant discourse of the day. In the current era, this is an anthropocentric vision of life supported by an instrumental rationality, the combination of which has led in recent decades to the emergence of an increasingly hegemonic neoliberal discourse. This is where the eclipse occurs, the move to a supposedly more rational approach, through its increasingly hegemonic discourse, comes to form a new prejudice, excluding potential alternatives. In doing so, it becomes ever more irrational itself as it lays claim to a level of certainty and 'truth' which cannot be proven or assumed. This contributes to the 'technocratic totalitarianism' in the construction sector, as suggested by Green (1998), with continuing discursive emphasis on 'efficiency', 'value for money' and 'productivity'. It must be stated, though, that it is a mostly unreflexive form of totalitarianism, in which many dominant actors uncritically parrot discursive tropes regarding construction 'improvements'.

What the discussion perhaps so far points to is, as Downey and Dumit (1997) suggest, a 'Citadel Problem'. By this it is meant that the predominant discourse of our times, underpinned by Liberal foundational assumptions (including the primacy of the individual, the right to one's own labour, and the right to private property), has positioned itself as the repository of supposedly legitimate knowledge in the modern world, at the expense of other alternative, competing lay knowledges. It resists perceived attempts to penetrate its boundaries, fortifying its position. Thus, what we are witnessing is an ongoing clash of cultural boundaries (Downey and Dumit: 2007). By unproblematically ascribing the concept of 'facts', a demarcation and delimiting of 'acceptable' knowledge occurs. The privileging of certain information as 'factual' is important as, 'Whether or not something is called a fact makes a great deal of difference to us. Statements that begin, *"The fact of the matter is…"* lay claim to an important source of authority' (Downey and Dumit: 1997: p. 6). This has important consequences, and,

'...one effect is to inscribe a boundary between those who achieve the authority to speak new truths and those who become card-carrying listeners. Claims to knowledge that fall inside a citadel can gain status, privilege…Claims that fall outside may have to struggle in a nether world of questionable legitimacy…'(Downey and Dumit: 1997: p. 6).

What is problematic and which raises ethical concern is that not all citadels are able to defend themselves equally. Institutional structures privilege certain forms more than others. In this instance, instrumental reason in its neoliberal guise has become predominant over alternatives and institutional barriers entrench this position and make resistance increasingly harder. The implication for policy lies in the consciousness and preferences of those in institutional positions of authority encroaching on an ever homogenous territory. The 'Policy-maker', in Marcuse's (1964) terms, has increasingly become a 'One-Dimensional Man', with the metaphorical veil of instrumental reason obscuring their vision. Not only are voices outside the citadel consciously ignored but often unconsciously, as policymakers genuinely see no 'real' alternative voices to consider. The concerns of 'deep' greens and other social groups, wishing for a fundamental reconfiguration of the relationship between humans, the built environment and the wider natural environment, are not considered then.

Where do we go, from here?

We have come to recognise, then, the potential for a singular, dominant conception of rationality to obscure our vision, and so, the need for a more reflexive, collaborative, democratic, and pluralistic approach is arguably appropriate as a remedy. Recognising the instrumental picture of action not as 'objective' but as one of many potential value-laden cultural ideals allows the possibility of us opening up the 'closed-normative core' (Purnell and Freeman: 2012). In terms of construction policy, this offers the potential to include a much broader spectrum of stakeholders in policy formulation. There are, however, barriers to reimagining practice, as the foundational atomistic assumptions regarding the primacy of the individual and private property rights are deeply engrained in our cultural psyches. A move towards the new model offered by Stilgoe *et al* (2006) in the table below would, perhaps, offer a more ethical, balanced approach though:

Table 1: Recreated from Stilgoe et al: 2006: p. 69

Old Model of Expertise	New Model of Expertise
Closed	Open
Homogenous	Diverse
Hubristic	Humble
Demanding public trust	Trusting the public
Expecting expert consensus and prescription	Expecting plural and conditional advice
Managerial control	Distributed control

So, when planning decisions are being made, for example, as wide a variety of stakeholders as possible would be included and their voices and concerns given equal time and consideration. Policymakers would be open and honest, humble enough to take seriously suggestions from the public, and there would be institutional

mechanisms in place that dispersed power and responsibility across the spectrum of stakeholders. This is important as, 'Citizen participation and deliberation on issues that have bearing on people's everyday lives are regarded as the normative core of democracy' (Bäckstrand: 2004: p. 33). Such a model challenges current preconceptions but would arguably offer a more ethical way forward, allowing a platform for the often voiceless underprivileged to be heard. This is important as, '…their needs command the same ethical status as those of the more powerful members of society (Etzioni: 1968: p. 494). If we take, as an example, a hypothetical plan for a new public park, a new model approach would canvass and take the ideas of local residents seriously; they would be integral to each and every stage of the decision-making process. There would be trust in the public. If this is difficult for some to accept, it is only because they have come to accept the privileging of one citadel of knowledge over another. Critical readers who take issue with this or believe it to be 'utopian' may wish to pause to reflect on the origins and structures influential in their own normative and value assumptions. Why, for example, should the opinion of one or two planners, with perhaps a few years' experience after their doctorates (if that), trump the collective will and wisdom of residents living in the area for years? As Bäckstrand states, '…people should be able to deliberate on issues that affect their lives…those who bear the consequences of decisions should be able to have a say' (Bäckstrand: 2004: p. 33). This would represent an active, genuine and sincere form of participatory democracy rather than the representative form so common today which is never far from a creep into a soft form of despotism, serving the dominant and often unreflexive interests of the day.

CONCLUSION

It has been suggested, then, that the predominance of an instrumental form of rationality undermines democratic culture and, in doing so, impoverishes policy formulation and potentials. The Capital approach to sustainability arguably perpetuates, and is informed by, a narrow conception of sustainability, one informed by an instrumental rationality. This is seen clearly when considering the juxtaposition between the Capital approach and the vision of sustainability popular with 'deep' greens. It is hoped that by raising awareness of the predominance of one particular type of rationality, that potential alternatives will be made visible and more pluralistic discussions possible. This is important as, '…taken-for-granted paradigms constrain the range of policies that policy makers are likely to consider' (Campbell: 2002: p. 23). This arguably represents a more ethical and democratic way forward. Most importantly, however, and to return to the title of this paper, we must beware instrumental reason masquerading as truth. That is not necessarily meant to suggest that it is false but, rather, that it is one truth of many, now representing the dominant Citadel of 'legitimate' knowledge in the current era. There is a need, however, in a supposedly democratic culture to take seriously the diverse range of voices ever present in a population and to ensure that each and every voice is heard, not solely the dominant elites. Now that we are aware, now that the veil has been lifted and we can begin to see more clearly, the choice is ours.

REFERENCES

Alvesson and Willmott [eds] (2003) Studying Management Critically, London: SAGE Publications.

Atkinson, G. (2008) Sustainability, the capital approach and the built environment', *"Building Research & Information"*, **36**(3), 241 - 247.

Bäckstrand, K. (2003) 'Civic Science for Sustainability: Reframing the Role of Experts, Policy-Makers and Citizens in Environmental Governance', *"Global Environmental Politics"*, **3**(4), 24 - 41.

Ball, M. (1988) *"Rebuilding Construction: Economic Change in the British Construction Industry"*, London: Routledge Press.

Bauman, Z. (1991) *"Modernity and the Holocaust"*, Cambridge: Polity Press.

Bishop, R. (2007) *"The Philosophy of the Social Sciences – An Introduction"*, London: Continuum International Publishing Group.

Campbell, J. L. (2002) 'Ideas, Politics and Public Policy', *"Annual Review of Sociology"*, **28**, 21 – 38.

Downey and Dumit (1997) 'Locating and Intervening', pp. 5 - 30 in Downey and Dumit (1997) [eds] *"Cyborgs & Citadels - Anthropological Interventions in Emerging Sciences and Technologies"*, Sante Fe, New Mexico: School of American Research Press.

du Plessis, C. & Raymond J. Cole (2011) 'Motivating change: shifting the paradigm', *"Building Research & Information"*, **39**(5), 436 - 449.

du Plessis, C. (2012) 'Towards a regenerative paradigm for the built environment', *"Building Research & Information"*, **40**(1), 7 - 22.

Egan, Sir John. (1998) *"Rethinking Construction"*. Report of the Construction Task Force to the Deputy Prime Minister, John Prescott, on the scope for improving the quality and efficiency of UK construction. Department of the Environment, Transport and the Regions, London.

Etzioni, A. (1968) *"The Active Society"*, New York: Free Press Ltd.

Green, S. (1998) 'The technocratic totalitarianism of construction process improvement: a critical perspective', *"Engineering, Construction and Architectural Management"*, **5**(4),. 376 - 386.

Horkheimer, M. (1957) 'The Concept of Man', 1 - 33 in *"The Critique of Instrumental Reason"* (1974), New York: The Continuum Publishing Corporation.

Jermier, J.M., and Forbes, L.C. 'Greening Organizations: Critical Issues', 157 - 176 in Alvesson, M. and Willmott, H. [eds] (2003) *"Studying Management Critically"*, London: SAGE Publications.

Lindblom, C. E. (1959) The Science of Muddling Through, *"Public Administration Review"*, **19**(2), 79 – 88.

Lukes, S. (1974/2005) *"Power: A Radical View"* – Second Edition, Basingstoke: Palgrave Macmillan.

Marcuse, H. (1964/2002) *"One-Dimensional Man –Studies in the Ideology of Advanced Industrial Society"*, London: Routledge Press.

Michael, M and Brown, N. (2000) 'From the Representation of Publics to the Performance of 'Lay Political Science', Social Epistemology, **14**(1), 3 - 19.

Morton, R. (2008) *"Construction UK – Introduction to the Industry"*, Oxford: Blackwell Publishing.

Ness, K. (2010) 'The discourse of 'Respect for People' in UK construction', *"Construction Management and Economics"*, **28**, 481 – 493.

Parsons, W. (2002) 'From Muddling Through to Muddling Up – Evidence Based Policy Making and the Modernisation of British Government', Public Policy and Administration, **17**(3), 43 – 60.

Pearce, D. W. (2003) *"The Social and Economic Value of UK Construction"*, London: nCRISP.

Purnell, L. S., and Freeman, R. E. (2012) 'Stakeholder Theory, Fact/Value Dichotomy, and the Normative Core: How Wall Street Stops the Ethics Conversation', *"Journal of Business Ethics"*, **109**(1), 109 – 116.

Rees, W. (1999) 'The built environment and the ecosphere: a global perspective', *"Building Research & Information"*, **27**(4-5), 206 - 220.

Rees, W. (2009) 'The ecological crisis and self-delusion: implications for the building sector', Building Research & Information, **37**(3), 300 - 311.

Sanderson, I. (1999) 'Participation and Democratic Renewal: from 'instrumental' to 'communicative rationality'?', *"Policy & Politics"*, **27**(3), 325 -341.

Schneider, A. and Ingram, H. (1993) 'Social Construction of Target Populations: Implications for Politics and Policy', *"The American Political Science Review"*, **87**(2), 334 – 347.

Smiley J, Dainty A and Fernie S (2013) 'Analysing the discourses surrounding change and reform in the construction sector: the need for a marriage between critical theory and a socio-historical cultural perspective', In: Smith, S.D and Ahiaga-Dagbui, D.D [eds] *"Procs 29th Annual ARCOM Conference"*, 2-4 September 2013, Reading, UK, Association of Researchers in Construction Management, 445 - 454.

Sorrell, S. (2001) *"Making the Link: Climate Policy and the Reform of the UK Construction Industry"*, Electronic Working Paper Series, Paper No. 67, SPRU, University of Sussex.

Stilgoe, J., Irwin, A., and Jones, K. (2006) *"The Received Wisdom – Opening up Expert Advice"*, London: Demos Think Tank.

Stone, D. (2002) *"Policy Paradox – The Art of Political Decision Making"*, London: Norton Press.

Weber, M (1904/2011) *"The Protestant Ethic and the Spirit of Capitalism"*, Oxford: Wiley-Blackwell Publishing.

Zerzan, J (2005) [ed] *"Against Civilization: Readings and Reflections"*, Los Angeles, Feral House Publishing.