

## Empire: The Coming of the Control Society

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**review of:**

Michael Hardt and Antonio Negri (2000) *Empire*. Cambridge, MA: Harvard University Press. (PB: pp. 496, £12.95, ISBN 0674006712)

Capital from its inception tends toward being a world power, or *really* the world power. (Hardt and Negri, *Empire*)

Every limit appears as a barrier to be overcome. (Marx, *Grundrisse*)

*What makes heroic?* – To go to meet simultaneously one's greatest sorrow and one's greatest hope. (Nietzsche, *The Gay Science*)

In many respects *Empire* is a book about rebels and revolutionary heroes. These heroes are to be found scattered across the pages of history, in both fact and fiction, including St. Francis of Assisi, bishop Bartolome de Las Casas, the rebel slave Toussaint L'Ouverture, Bartleby the Scrivener, revolutionary ideologues such as Karl Marx and Rosa Luxemburg, the film maker Charlie Chaplin, the peasant soldiers of Vietnam, the Chinese students of Tianamen Square, and the Zapatista rebels of Mexico. Each of these heroes is a step on the way to a new revolutionary force that Hardt and Negri call "the multitude". This revolutionary being will transfigure society beyond recognition, to found a truly communist global society, a counter-empire. The book ends by looking forward to the coming revolution, "a revolution which no power will control – because biopower and communism, cooperation and revolution remain together, in love, simplicity, and also innocence" (p. 413).

The book draws upon a staggering range of sources and disciplines including literature, history, philosophy, economics, politics, and international relations. It is a truly multidisciplinary study that takes Marx's *Capital* and Deleuze and Guattari's *A Thousand Plateaus* as models. A comprehensive critique of the book will not be attempted in this review because for my own interests it will prove far more fruitful in this limited space to see the many ways in which Organization Studies and the study of Management may be enriched with reference to this brilliant work. As such, this review will provide a brief outline of the major concepts discussed throughout the book, and

then attempt to suggest how the Organization Studies and Management literature might benefit from using these concepts.

## **The Control Society**

Hardt and Negri draw on an idea loosely sketched out by Deleuze towards the end of his life, which suggests that in the Twentieth century we have moved from a disciplinary society to a more invasive society of control (Deleuze, 1995). This does not mean that disciplinary institutions have disappeared, but that their authority is no longer confined to particular institutions. Instead power is becoming integrated into every aspect of social life by way of increasingly interconnected networks. They follow Foucault and Deleuze in showing that historically the police includes everything so that now the object of policing has become life itself.

Hardt and Negri's analysis of *Empire* focuses largely on international relations and politics for many of its examples, however, it also strays into areas such as management when useful. In fact, the authors state that management thinking has a strong affinity with postmodern theory and postmodern forms of control, and quote from an edited collection on postmodern management by Boje et al. (1996) to illustrate this assertion. The quotation they use goes as follows, "The postmodern organization...has certain distinctive features – notably an emphasis on small to moderate size and complexity and adoption of flexible structures and modes of institutional cooperation to meet turbulent organizational and environmental conditions" (p. 152). The authors take pains to show that the postmodern epoch is by no means any freer than the modern epoch. They warn us that postmodern ideals such as the production of difference, hybridity and flexibility may be associated with new forms of social control. In fact, many people do not experience mobility or flexibility as 'liberatory' but as a forced flight from poverty and misery. Not all movement is liberatory, for instance, the massive migrations from the country to the metropolitan centres, the flows of legal and illegal migrant workers upon which transnational corporations depend, and the millions of dispossessed who have had to flee famine and war.

Disciplinary practices mold the behaviours of individuals, whereas networks of control modulate their interactions. Discipline operates by segregating and fixing, whereas modulation operates by integrating and organizing differences. Hardt and Negri highlight marketing as a paradigmatic postmodern process whereby "every difference is an opportunity" (p. 152). The paradigmatic form of modulation according to Deleuze (1995) concerned the control of money, specifically when the gold standard was replaced by floating exchange rates.

The authors observe that this new form of power is immanent to the means of production and the social fabric in a quite different way than in disciplinary power. Disciplinary power was still tied to transcendental notions derived from the identity of God, the monarch and the state. The authors state that "the elements of transcendence in disciplinary society decline while the immanent aspects are accentuated and generalized" (p. 331). Transcendental elements include the authority of the sovereign

state and its constitutive institutions, such as schools, barracks, the police and so on. Immanent aspects include the networks of production, the identity of those who constitute these networks and the webs of cooperation these networks presume.

There is very little on the dangers of the control society in the management literature. Indeed, there are some developments which may be seen as hugely sympathetic to the idea of the control society. Many recent fads concerning the management of 'knowledge' (information systems, knowledge management) and 'business processes' (business process re-engineering, supply chain management, enterprise resource planning) champion the idea of the increasing cybernetic integration of workers, computer systems and machines. The most bizarre affirmation of this kind of thinking that I have come across so far is to be found in a book on knowledge management which states that communication technology can encourage workers or 'crew members' to "begin constructing a common language and synchronizing their mental and physical rhythms" (Nonaka and Takeuchi, 1995: 231). There is some literature in Organization Studies which questions these kinds of workplace innovations, but it is grounded in an outdated theory of power (disciplinary) that was developed for the industrial workplace. *Empire* and its theory of the control society provides a theory of power specifically derived from post-industrial relations of production. If one wants to find more reflective and critical explorations of the control society it is worth looking to literature and film, particularly in the genius of William S. Burroughs, J.G. Ballard and Philip K. Dick, and films such as *Gattaca*, *Videodrome*, or *Existenz*.

## **Biopower**

Hardt and Negri draw on Foucault's concept of biopower, which he developed for the social practices of Eighteenth and Nineteenth century capitalism and updates the concept to be relevant for the new practices of post-industrial capitalism. One of the central differences in their reformulation of biopower concerns the increasing importance of what they term 'immaterial labour', and how to exercise control over bodies and minds in order to extract value from this form of labour. Immaterial labour is made of three broad areas: communicative labour in informational networks, interactive labour in symbolic analysis and problem solving, and affective labour in the provision of a service. A distinctive problem of this new mode of production is the impossibility of measuring the value of such labour (p. 401).

Affective labour fits well with the other more information-based forms of production, not only because it is immaterial but also because it produces "social networks, forms of community, biopower" (p. 293). A new level of cooperation is essential with the emergence of immaterial labour, where the production process directly concerns the production of social relations, and cooperation is at once a product of these networks and a prerequisite for their formation. It is also important to note that affective labour is clearly a corporeal activity, but its product is immaterial, such as a feeling of ease or excitement.

There is some interesting work which has attempted to adapt Foucault's concepts of disciplinary power and biopower for investigating postmodern organizations (Jermier et al, 1994; Townley, 1994; McKinley and Starkey, 1998; Ball and Wilson, 2000). The work of Hardt and Negri would be particularly useful in helping to clear up some of the conceptual confusion that has arisen in this literature, as a consequence of attempting to apply concepts developed from a largely industrial era to one where work has been increasingly informatized. There has been some movement in this direction, I am thinking specifically of the recent publication of *Body and Organization*, which despite its title, deals very well with aspects of 'immaterial labour'. The ethnographer Paul Rabinow has also taken the idea of biopower and attempted to make it relevant to the postmodern world, particularly with regard to the biotechnology industry and the work on the human genome (Rabinow, 1996a, 1996b). Rabinow describes the postmodern epoch as a 'biosocial society' where the barriers between nature and culture have entirely broken down and our very biology is becoming artificial.

## The Network and the Informatization of Production

Today, the assembly line has been surpassed by the network as the most powerful mode of production. The network is the quintessential postmodern institution, being a virtual space for both the production and the circulation of information. The network has made Empire possible, specifically in terms of the globalization of production. The network is not simply the Internet alone, but involves the entirety of connections that make up the world market as a whole. In fact, the world market, the flows of finance, money, information and commodities, is held up by Hardt and Negri as the ideal type of network. No one exists outside of the network, or as Hardt and Negri put it: "In its ideal form there is no outside to the world market: the entire globe is its domain" (p. 190).

Hardt and Negri distinguish three modes of production whether it be based on: i) agriculture and the extraction of raw materials, ii) industry and the manufacture of durable goods, and finally, iii) service provision and the manipulation of information. Economic activity is increasingly characterized by the third of these modes of production. However, it is important to note that when production moved from being largely agricultural to largely industrial, the remaining agricultural production was itself reorganized along industrial principles. Exactly the same process of reorganization is taking place today with respect to the manufacturing industry, not only is it supported by more information, it is itself being transformed into another kind of service: "all production tends toward the production of services, towards becoming informationalized" (p. 286).

There is plenty of mainstream work praising the entrepreneurial flair of networks (in its most ideological form see *The Economist*, 29 July 1989, p.82, but for a more reflective summary see Castells, 1996). There is also some more critical work on the status of the network as an organizing force (Wallemacq, 1998; Munro, 2000). Within Organization Studies and Sociology there has been some interest in the development of Actor Network Theory which explicitly takes the network and concepts like hybridity as its guiding principles (Law, 1992; Law and Hassard, 1999). There is also an insightful

literature in Sociology on cyberbodies which deals well with the role of networks and hybridity (Featherstone and Burrows, 1995; Haraway, 1997).

## **Empire**

Protection and oppression can be hard to tell apart. (p. 106)

The idea of the U.S. becoming a world police force is traced back to the Monroe Doctrine of 1823 where the U.S. vowed to 'protect' all the Americas from interference by European nation states. This was further reinforced in the Twentieth century when President Roosevelt declared that the U.S. would become an "international police power" (p. 177). A distinctive feature of conflict within Empire is the re-emergence of the concept of the 'just war', and the idea of humanitarian intervention. In fact, conflict within Empire is increasingly described in terms of police actions where the enemies are not a distinct country or army but are described as 'criminals', 'drug lords' or 'terrorists'. They are increasingly difficult to localize and identify, creating a state of 'omni-crisis' rather than clear conflict. Given that this book was first published in the year 2000, it contains some remarkable predictions about the recent emergence of the 'war on terrorism', waged with only vague and unattainable objectives, against a diffuse enemy, and across a potentially unlimited time span.

Global capital has moved from rule by imperialist nations, to rule by an imperial Empire. The old imperialist form of sovereignty is an enclosed space, using linear controls (the road and railway network), which subsume its outside (the frontier, the colonies, the global ecology). As this it simultaneously civilizes and creates alien/savage identities. According to Hardt and Negri, the closing act of the old 'imperialist rule' was the Tet Offensive of 1968. Since then the world has been moving rapidly toward the 'imperial rule' of Empire. This form of sovereignty is an open space where there are no more frontiers, it is composed of vast networks, and it integrates all identities within its constitution.

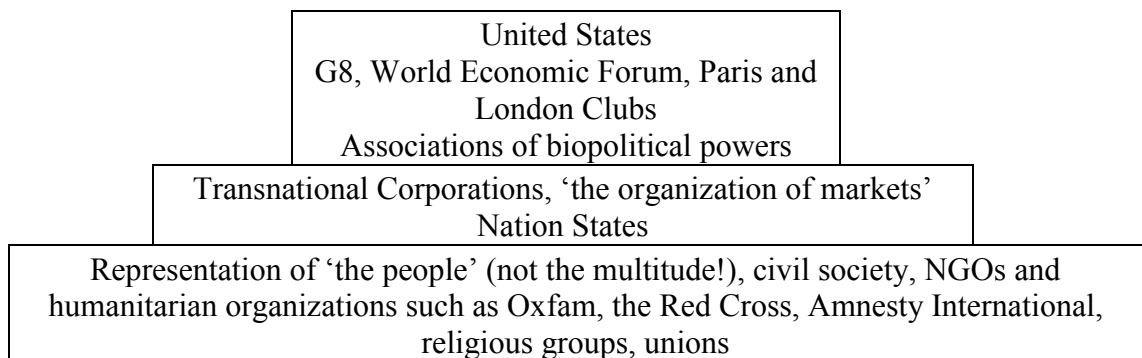
"Empire is a machine for universal integration" (p. 191). At the same time, however, the multitude is divided and turned against itself by maintaining certain cultural differences in order to ward off any unified resistance to capitalist control. The first world has now entered the third world through banks, especially by debt, and transnational corporations, and the third world has entered the first with the appearance of ghettos and shanty towns near its productive centres. In reality, there is no third world and the authors point out that the distinction was always rooted in a fallacy, that of diachronic economic development. Hardt and Negri state that "empire is characterized by the close proximity of extremely unequal populations" (p. 336). They mention cities such as Los Angeles and Sao Paulo as specific examples, but this phenomenon has become widespread towards the end of the Twentieth century. Unsurprisingly we now live in a climate of segregation and anxiety, which also calls for constant protection and intervention.

The authors state that there are three major sources of global control in Empire: the bomb, money and ether (p. 345). The threat of nuclear destruction has led to the

gradual disappearance of wars between nations and the emergence of an “omni-crisis” and global police force. The flows of money and finance exercise huge power over the policies of both corporations and nations. As Deleuze previously stated: “A man is no longer a man confined but a man in debt” (1995: 181). And finally, control is exercised through communication networks, remotely and continuously. The importance of communication to imperial control cannot be overemphasized: “Communication is the form of capitalist production in which capital has succeeded in submitting society entirely and globally to its regime, suppressing all alternative paths” (p. 347). It is through the new communication networks that older forms of sovereign power such as the nation state are being undermined, and these same networks also provide the site of production and circulation of capital in the world market.

The authors do not proclaim the end of the nation-state, but that the nation-state is a relatively subordinate force within Empire. The authors map out the pyramidal shape of Empire where, although the U.S. is at the top, it is by no means the control centre of Empire. Empire operates in a non-place (*ou-topia*) which has no control centre, although it does have more or less dominant constituent forces. Below is a diagram outlining the constituent layers of Empire:

### The Three Tiers of Empire



By virtue of being the only remaining superpower and being the only nation with the capability to stand in as a world police force, the U.S. is situated at the pinnacle of the pyramid. This however, is not the same as being in a position of control over the rest of the pyramid. On the same tier as the U.S. are the global elite which determines the transnational agreements and monetary instruments that regulate international exchanges. The second tier contains the transnational corporations that regulate the global flows of capital, technology, and people. Nation states are situated slightly below the massive transnational corporations, but they are able to bargain with these huge corporations and still have the power to redistribute incomes and discipline their own populations. In the lowest tier of empire we find the civil society, NGOs and humanitarian organizations which form the capillary ends of the networks of power. Power, in the form of military and police intervention, is often invited into an area and

legitimated by organizations on this lowest tier. This tier is beyond politics “meeting the needs of life itself” (p. 324).

Hardt and Negri note that Empire contains within it the seeds of its own destruction, the possibility that the intense cooperation that is required in a network society will allow the means of production to be captured by the multitude. From its very beginning Empire existed in a state of crisis and decline. But the authors go further than this and state that the process of degeneration and ‘corruption’ is essential to the functioning of Empire. Following Deleuze (1995), they show that Empire works by means of corruption, in a machinic fashion as it declines and decomposes. Corruption is the process by which capitalism separates a body and mind from what it can do, thus controlling its productive powers and extracting surplus value. Corruption and decay are continuously at work in all realms of social production, for example, in the lobbying done on behalf of corporate interests, in the privatization of what was originally public (land, rivers, knowledge and ideas), and in the extraction of profit from sterile financial speculation. These all constitute acts of violence against the productive powers of the multitude no less than does the invocation of terrorism to suspend the democratic process or the deployment of a rotten police force to harass and attack protest groups.

As far as I am aware business and management texts appear to have remained happily oblivious to concerns relating to the West’s colonial past, its exploitation of vast slave and migrant populations, to say nothing of the emergence of Empire. However, the rising popularity of management courses on subjects with an international flavour such as international marketing, international business and global strategy, all of which are taught in the department to which I belong, suggest an implicit awareness amongst students and teachers that Empire is with us. As a book, *Empire* may provide a very rich background to the historical phenomenon of globalization, but also on how production is organized within today’s networks of power. Business ethics was one of the first areas in management theory to look into problems of international business beginning in the 1970s and 1980s. However, rarely do journals such as *The Journal of Business Ethics* ever express any concern for problems relating to the exploitation of the masses, or the forms of corruption that are necessary to Empire, or the difficulty in telling protection from oppression in this new global regime.

## The Multitude

Disobedience to authority is one of the most natural and healthy acts. (p. 210)

The concept of the multitude replaces that of the proletariat, or constitutes a different form of proletariat, as the revolutionary force within Empire. Unlike Marx’s mass of industrial workers, the multitude includes the entire world population. Today, everyone is subject to exploitation by capital, the unemployed are just as important in creating the conditions for the exploitation of a flexible, mobile workforce as are those who have jobs. Although the multitude contains everyone, the poor form the core of this collectivity since the poor are the elementary productive force of capitalism.

The multitude lies beyond representation, and its revolutionary potential lies not in its ability to represent itself as ‘a people’, but in its productive forces and creative capacities. Drawing analogy with St. Francis the authors accord the multitude’s god-like powers in its potential for creativity: “only the poor has the ability to renew being ‘The poor is god on earth’” (p. 157).<sup>1</sup>

There is an implicit comparison between the multitude and Nietzsche’s superman. The multitude is beyond human in at least two senses, first because it is fundamentally machinic being composed of a hybrid of machines, communications networks and people. And second because it is the creator of new values and as such can be understood in terms of what Deleuze called the ‘self overcoming man’ (Deleuze, 1983). The multitude’s continual experiments in living and producing brings about the transvaluation of values (Nietzsche, 1969). The multitude is the driving force of capital, because its forms of resistance determine the path along which capital will move to exploit labour in the future. The worker and student protests of the 1960s and 1970s led to a rise in the value of services and intellectual labour associated with a move against factory discipline and a re-evaluation of the production of culture in terms posed by the counterculture. The hero of resistance ought not to be an isolated and lonely individual but the joyous collective. Hardt and Negri refer to the stories of Coetzee’s Michael K. and Melville’s Bartleby as a warning against isolated resistance, the moral being that such a lonely struggle is effectively suicidal. They contrast such solitary creatures with “the genius of collective practice” (p. 206), which can become an experimental and joyful experience.

The concept of the multitude could prove very fruitful in helping to reform the study of Industrial Relations, and reformulate its understanding of what constitutes the proletariat today. The area of Organization Studies is notable in its almost complete disregard for the multitude, specifically when glancing at the contents of any textbook in the area – where are the poor, where is the multitude? There is a notable exception in the work of Gibson Burrell, whose book *Pandemonium* attempts to launch a ‘retro-organization theory’ and looks specifically at the areas excluded from mainstream study such as the peasantry, the dispossessed and even terrorists, all of whom may constitute the multitude. Hardt and Negri also tell us that disobedience is a perfectly natural and healthy phenomenon and what is needed is a body “completely incapable of submitting to command” (p. 216). Such bodies are described in the essays of William S. Burroughs on the subversion of control by viral mechanisms, and in the philosophies of Deleuze and Guattari (1983, 1988) and Land (1995) which resist the organized body with a Body without Organs.

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1 St. Francis of Assisi lived in the early 13th century and abandoned a life of relative comfort for a life of extreme poverty, preaching that Christ did not even own the clothes on his back. For an excellent fictional account of his life I can recommend God’s Pauper by Nikos Kazanstakis.



## Immanent Revolution

According to Hardt and Negri, revolutions of the kind that Che Guevara imagined are no longer possible. One cannot cut oneself off as a nation from the world market, to do so would simply lead to the creation of a ghetto. Today, however, the revolutionary forces of society confront capital as never before, directly without the need for mediators such as the unions or the nation state. The fact that the multitude continuously creates the network of communications which is at once the means of production and the product itself is of profound revolutionary import. According to Hardt and Negri where the means of production revolve around immaterial labour, such conditions “provide the potential for a kind of spontaneous and elementary communism” (p. 294).

The networks of the control society are always open to the possibility of resistance, where the effectiveness of the network is to a large extent determined by the freedom of movement allowed within it. In the words of the authors: “The same design element that ensures survival, decentralization, is also what makes control of the network so difficult” (p. 299). This quirk in the design of the networks of control allows for new possibilities of radical democracy, “the circuits of productive cooperation have made labor-power as a whole capable of constituting itself in government” (p. 350).

The authors confess that one weakness of their analysis is an inability to say what the new revolutionary practice might look like. However, they also note that it is not for them to map out a new theoretical utopia but for the multitude to experiment and create new ways of living together. One important indicator they give is the crucial role of the commons in resisting the privatization of everything: “The commons is the incarnation, the production and the liberation of the multitude” (p. 303). This is particularly important when the communication networks increasingly demand cooperation and a common language.

They suggest at least three ways by means of which the multitude may achieve the new communist *ou-topia*. The first is by campaigning for a ‘social wage’, guaranteed for all. This is based on the idea that production is biopolitical to the core, where the social and the economic coincide completely, and is therefore reliant upon all members of the globe for its functioning. Secondly, they call for truly global citizenship, not simply for the capitalist elite, but for the entire multitude. This may seem like an ideological statement, but the authors explain that this is merely the recognition of an existing economic reality, since the developed nations already rely on a huge migrant workforce, much of it ‘illegal’, for their agriculture and manufacturing. Nomadism and miscegenation are “the first ethical practices of Empire” (p. 362). People must themselves gain the right that money already has – “the power to circulate”. And thirdly, knowledge and language must become part of a commons for public use, and not sealed behind the gates of private ownership: “Knowledge has to become linguistic action and philosophy has to become a real reappropriation of knowledge production. In other words, knowledge and communication have to constitute life through struggle” (p. 404).

There is some work in the Management literature which addresses the idea of liberation, but rarely if ever addresses the idea of revolution. Much of it is inspired by the work of Jürgen Habermas and his idea of ‘discourse ethics’. This could itself just be another symptom of the control society, ‘keep talking, communicating, producing, obeying’, rather than being liberatory in any respect. Unsurprisingly, to really look for the experiments in living which are being performed by the multitude today, one has to look outside of the Management literature. The multitude is coming together in protests throughout the world in their efforts to campaign for a commons, whether it concerns the environment, intellectual property rights, or the division of the world’s resources. Although Hardt and Negri do not say so themselves, there are some fascinating experiments in creating a commons on the Internet which are currently ongoing. These involve projects such as the development of open source code, the establishment of the Freeware Foundation (<http://www.fsf.org/fsf/>), the development of the GNU general public license (the remarkable invention of free property) and shareware such as Napster and Gnutella. Even more important are debates concerning the status of intellectual property in general, which have massive implications for the welfare of the multitude, for example, whether or not the human genome is to be treated as a commons for the public good, and whether or not essential pharmaceuticals are to be permitted to be produced cheaper in those poorer third world countries which desperately need such medications (Chomsky, 1999).

## Conclusions and Connections

[P]hilosophy can’t battle with the powers that be, but it fights a war without battles, a guerrilla campaign against them. (Deleuze, 1995)

This review has attempted to provide a short introduction to a few of the principle concepts developed in *Empire: the control society*, biopower, post-industrial networks of production, Empire, the multitude, and the concept of immanent revolution. It has also attempted to give a brief comment on the profound importance of these concepts for Organization Studies and the Management literature. If for no other reason this book should be read for its very rich and informative history of globalization and the rise of post-industrial forms of production.

*Empire* is not a new communist manifesto, nor did its authors intend it to be such (Hardt and Negri, 2001). It is not written in the style of a manifesto, being a rather weighty academic piece of work. One of its major strengths is that it draws on a diverse range of sources, however, it often draws on some difficult philosophical concepts where it helps if one already has a good knowledge of the two outstanding works that *Empire* takes as its models, *Capital* by Marx and *A Thousand Plateaus* by Deleuze and Guattari.

The authors are acutely sensitive of the significance of truth for the postmodern world, and wish to highlight the revolutionary potential of this concept. We cannot wash our hands of truth, and like Chomsky, we need to take control of the production of truth, a duty that should be clear to anyone, academic or otherwise, after reading this book. “The real revolutionary practice refers to the level of production” (p. 156). This is the

case not only for the production of goods and services, but the production of knowledge and truth. This is the essence of biopower.

## references

- Ball, K. and D. Wilson (2000) 'Power, Control and Computer Based Performance Monitoring: Repertoires, Resistance, Subjectivities', *Organization Studies*, 21: 539-565.
- Boje, D., R. Gephart, T.J. Thatchenkery (eds.) (1996) *Postmodern Management and Organization Theory*. London: Sage.
- Burrell, G. (1997) *Pandemonium*. London: Sage.
- Castells, M. (1996) *The Rise of the Network Society*. Oxford: Blackwell.
- Chomsky, N. (1999) *Profit over People: Neoliberalism and the Global Order*. New York: Seven Stories Press.
- Deleuze, G. (1983) *Nietzsche and Philosophy*. London: Athlone.
- Deleuze, G. (1995) *Negotiations*. New York: Columbia University Press.
- Deleuze, G. and F. Guattari (1983/1972) *Anti-Oedipus: Capitalism and Schizophrenia*. London: Athlone.
- Deleuze, G. and F. Guattari (1988/1980) *A Thousand Plateaus: Capitalism and Schizophrenia II*. London: Athlone.
- Featherstone, M. and R. Burrows (eds.) (1995) *Cyberspace, Cyberbodies, Cyberpunk*. London: Sage
- Hardt, M. and A. Negri (2000) *Empire*. Cambridge, MA: Harvard University Press.
- Hardt, M. and A. Negri (2001) 'Adventures of the Multitude: Response of the Authors', *Rethinking Marxism*, 13: 236-243.
- Harraway, D. (1997) *Modest\_Witness@Second\_Millennium.FemaleMan<sup>c</sup>\_Meets\_OncoMouse<sup>TM</sup>*. London: Routledge.
- Hassard, J., R. Holliday and H. Wilmott (eds.) (2000) *Body and Organization*. London: Sage.
- Jermier, M., D. Knights and W. Nord (eds.) (1994) *Resistance and Power*. London: Routledge.
- Land, N. (1995) 'Meat (or how to Kill Oedipus in Cyberspace)', in M. Featherstone and R. Burrows (eds.) *Cyberspace, Cyberbodies, Cyberpunk*. London: Sage, 191-204.
- Law, J. (1992) 'Notes on the Theory of the Actor Network: Ordering Strategy and Heterogeneity', *Systems Practice*, 5: 379-393.
- Law, J. and J. Hassard (eds.) (1999) *Actor Network Theory and After*. Oxford: Blackwell.
- McKinley, A. and K. Starkey, (1998) *Foucault, Management and Organization Theory*. London: Sage.
- Munro, I. (2000) 'Non-disciplinary Power and the Network Society', *Organization*, 7: 679-695.
- Nietzsche, F. (1969/1885) *Thus Spoke Zarathustra: A Book for Everyone and No One*. London: Penguin.
- Nonaka, I. and H. Takeuchi (1995) *The Knowledge Creating Company: how Japanese companies create the dynamics of innovation*. Oxford: Oxford University Press.
- Rabinow, P. (1996a) *Essays on the Anthropology of Reason*. Chichester: Princeton University Press.
- Rabinow, P. (1996b) *Making PCR: A Story of Biotechnology*. London: University of Chicago Press.
- Townley, B. (1994) *Reframing Human Resource Management: Power, Ethics and the Subject at Work*. London: Sage.
- Wallemaq, A. (1998) 'Totem and Metaphor: the Concept of Network as a Symbolic Operator', *Organization*, 5: 593-612.

## the author

Universities provide excellent breeding grounds for the spread of disease, lecturers, and rumour has it, knowledge and ideas. The Iain Munro virus has recently spread from the Warwick Business School to the Department of Management, St. Andrews University, where the cold weather has mercifully halted further contamination.

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