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Ordering and Obduracy(*)

John Law

Introduction

Organising Modernity is both a book about a particular organisation and, more generally, an attempt to explore the ordering implied in organisation (1). Amongst the claims that it makes there are the following:

- One: 'an organisation', a noun, is best not understood as an organisation, a noun, at all, but rather as a verb, that is as a **process**, a continuing process of movement. Like riding a bike, if it stops moving it no longer works. So the book is a plea to move from nouns to verbs. From things to processes. This is something which turns out to be surprisingly difficult to do. (2)
- Two: an organisation is never simply a social matter. Or, better, the social itself is not simply social, but rather a **materially heterogeneous** set of arrangements processes, implicated in and implicating people, to be sure, but also including and producing documents, codes, texts, architectures and physical devices. This second point draws on recent work in the discipline of science, technology and society. And it is a point which many seem to find difficult to take on board: that the non-human just as much as the human may act. That agency does not necessarily belong to people. (3)
- Three: if an organisation is a materially heterogeneous process of arranging and ordering, than that process may be understood as **strategy**: not, to be sure, necessarily (or indeed often) an explicit strategy but rather an as implicit strategy or as a **mode of ordering**. The argument is that a mode of ordering is like a Foucauldian mini-discourse which runs

through, shaping, and being carried in the materially heterogeneous processes which make up the organisation.

- Four: if organising may be understood strategically, then there is the further suggestion: that strategy is not single, but rather **multiple**. This means that in organisation there are different strategies at work, intersecting with one another, and that there is no single key order in the organisation. This is a political as well as an analytical point, since the book responds to the simplicities of the market solutions proposed by the neo-liberals of the late 1980s. The point being not that markets or what I call 'enterprise' are wrong in and of themselves, but rather that the hubris attached to the sentiment that 'there is no alternative' to markets is not only politically obnoxious but also analytically flawed. Of course there are alternatives. Organising (one might add the world) lives as sets of alternatives. To use philosopher Annemarie Mol's language, then, this fourth point insists on **difference**. (4)
- Five: organising is about **complex relations** between the different modes of ordering. Nothing simple. Sometimes these may undermine one another. Sometimes by contrast, they prop each other up. There are no simple stories to be told about organising as multiplicity. It is a painstaking empirical as well as an analytical task to explore the complexities of ordering and short-cuts are not possible. (5)
- And finally, six: organisations precisely work because they are **non-coherent**. An organisation which is gripped by a single version of reality – like a polity which suffers the same indignity – is not very long for this world. The real world is messy. Regrettably in the fevered imaginations of the social engineers the possibility of pure form, pure plan, pure order, is still to be found. (Let us hope that the 21st century is less beset by the hideous purity of the utopians than was the 20th.) (6)

Someone recently asked me: do you still 'own' Organising Modernity? She meant: do you still think that you got it right? I guess that the answer is more or less yes, I do. I feel that I still own it. These arguments still make sense to me. Almost all of the lessons that I taught myself as I wrote it still feel right. Process. Material heterogeneity. Strategy. Multiplicity, and therefore discursive heterogeneity or difference. Complexity. Non-coherence. Resistance to purity. These still all make sense. I do not want to move so very far from them. But, and as I think through the issues, the character of ordering, I also begin to see different things and other issues start to come into focus. And it is to those that I want to explore here, half a move on from the arguments of Organising Modernity.

Obduracy

So what is the problem now? What is the issue? There are various ways of talking about this. For instance, I am more interested in the **asymmetries of power** than I was a decade ago. For here Organising Modernity reveals its Foucauldian origins. Foucault tells us that power is not only a matter of domination, of asymmetry but is also a matter of enabling, constructing, of making possible. The modern episteme with its strategies of surveillance and discipline enables, precisely, the production of modernity: armies, schools, factories, penitentiaries, all of these are modern productions, along with the subjectivities that these entail. None would have been possible before the end of the eighteenth century and the production of modern sociotechnical relations and modern disciplined subjectivities. (7)

All of which is an argument that runs through the pages of Organising Modernity. The different modes of ordering produce certain forms of organisation. They produce certain material arrangements. They produce certain subject-positions. And they produce certain forms of knowledge. Daresbury laboratory is indeed productive! And here, though a concern with asymmetries of power does not entirely disappear, it is generally subordinate to power understood as productivity. I don't feel the need to recant this. But now I find that I am more bothered by the inequalities of power than I was. Without abandoning a concern with Foucauldian productivity, I want to find ways of imagining and interfering in the distributions of power.(8)

So that is my basic agenda. However, I prefer to tackle it indirectly by thinking about **obduracy**. It is fashionable – and indeed scarcely wrong – to note, following Karl Marx, that in an era of high modernity 'all that is sold melts into air' (9). Indeed there is a large literature on

so-called 'globalisation' which (when it is not, in techno-celebratory mode, lauding the arrival of the 'global village', the ubiquity of the internet, and the availability of WAP telephones) notes that the moves and flows of capital are destructive as well as creative. (10) In this neo-Marxist trope obduracy is backgrounded in favour of change, certainty in favour of uncertainty, the fixed in favour of that which is mobile. All of what is no doubt right. Indeed sadly I can bring the point right home. Daresbury laboratory, the site of the ethnography in Organising Modernity, is shortly to be closed and the next generation synchrotron radiation source in the UK is to be built at a different site close to Oxford in the south of England.

But. But, and. Though everything changes, also it remains the same. As the neo-Marxists know well, the waves of creative destruction also generate obduracy: heroic and continued, arguably hegemonic, distributions of productivity. A world of inequality. And it is the obduracy of these distributions that begins to fascinate me. Daresbury laboratory itself was built in the 1960s, it has lasted something like forty years, and it has been subject to a number of major reinvestment programmes: which reveals a fair capacity to surf the waves of global scientific change. And the orderings built into the laboratory? Well, or so it seems to me, these indeed reveal an even more remarkable persistence – even if the location in which they are enacted and carried through is now displaced 300 kilometres to the south. So my question (not such a novel question, to be sure) is this: if everything is process, everything is change, if everything is flow, then how come so much stays in place? How is it that through those flows some kind of quasi-stability is secured? Some kind of obduracy is assured? Certain kinds of distributions of productivity seem, hegemonically, to sustain themselves?

So these are my questions. Without recanting Organising Modernity I am interested in the obduracy of power and its asymmetries. Since, I plan to move beyond the conclusions of the Daresbury study, let me start by pointing to two places where this indeed helps us to think about such durability. These have to do (1) with multiplicity and (2) with material delegation. Material delegation first.

Obduracy 1: Material Delegation

The science, technology and society roots from which the Daresbury study grew has a great deal to say about obduracy. In particular, the social, I noted above, is never simply social. For instance, actor-network theory – and in a different though related way, the feminist material semiotics of Donna Haraway – are distinct from the sociologies not by virtue of the fact that they deal with different materials – for after all, there are plenty of social constructivist or labour process studies (to mention just two possibilities) which are thoroughly materialist. Rather, they distinguish themselves from the sociologies by dealing with different materials in the first instance in the same terms. (11) This is a sensibility which also informs Foucault's work. Discipline is (I remake the list that I made earlier) about bodies. It is about architectures. It is about time. It is about texts. It is about sight. It is about furniture. And, finally, it is about the soul. Discourse is a strategy which runs through and helps to produce all of these different material specificities. None has any particular priority.

So actor-network theory, feminist material semiotics, Foucauldian discourse analysis, the three share this propensity: to treat with different materials in the same terms. They are not philosophically materialist (I take it for granted that they are not philosophically idealist). Moving beyond this dualism, they are concerned with materiality as a relational effect. Materiality, not materialism. And no doubt (we can do the genealogy) this is because they are all forms of (materially sensitive) post-structuralist semiotics and are thus precisely interested with how relations produce effects, including material effects.

So far so good. But actor-network theory, though it has various disadvantages has one significant advantage. It is concerned with how relations, including relations of power, get delegated into other more durable materials. Callon and Latour tell a fable about baboon society which they distinguish from human society by claiming that human society delegates strategies which arise between humans into longer-lasting materials, which then tend (everything else being equal) to hold them in place. (12) So it is the network of materials which turns Andrew-as-a-person into Andrew-as-the-director-of-Daresbury-laboratory. And that network includes buildings, computers, telephones, data, accounting software, and all the rest. Whereas (to return to the Callon-Latour fable) the top baboon has no such extra-somatic

resources. Snarling, chest beating, and physical violence – these are his weapons of first, but also of last resort.

We needn't detain ourselves for too long with fables about baboons. The actor-network take-home message here is clear and very helpful. Obduracy is achieved in part by delegating what might have been purely social relations into other materials. Or, to return to a point I made earlier, it is achieved in part by virtue of the fact that there is no such thing as a purely social relation. (Though we also need to be cautious here, and not to slip into a version of technological determinism. It is not that objects – such as machines – have a form which holds willy-nilly. They have a form but that form is no more than an effect of the network of relations into which they are inserted, and which they then help to produce.)

At this point the virtues of the notion of (mainly implicit) strategy become clear. Strategies run through, produce, and are produced by materials, some of which tend to achieve a durability that helps to carry those strategies on. Indeed I worked through several examples of this logic in the Daresbury study. Think, for instance, of the accounting system. This had been in place for decades before I arrived, put in place in conformity with legal and organisational provisions, when the laboratory was established. This was an accounting system that took various material forms: for instance, office procedures, paperwork, account books (and later electronic accounts), certain kinds of skills, calculators (and later computers). At the same time it carried and enacted a certain strategic order. Briefly, this concerned what one might think of as 'due process'. That is, it was designed to ensure: that bills were paid when, and only when, they were due; that wages and salaries were paid when, and only when, they were due; that expenses were paid when, and only when, they were due. And all the rest. It reflected, that is, an organisational and legal logic – an aspect or an expression of what I called 'administration' in Organising Modernity.

So 'administration' was one strategy, a strategy delegated into the range of materials that I have just mentioned. Traces were left, for instance in the form of accounts, which enacted this strategy and made it more difficult (for instance) to perpetrate fraud. A kind of surveillance, it helped to work towards organisational obduracy, to the proper administration of the laboratory. 'Power to' keep things running smoothly. Power, indeed, to make other courses of action more awkward – like, for instance, the introduction of the management accounting system which was the big issue when I was carrying out my fieldwork. A big issue because it was, as it were, the materialisation of an alternative strategy of ordering, that of enterprise. A big issue because while the management accounting system needed to piggyback on the administrative accounting system its concerns were very different. No longer to do with fraud or due process, it was preoccupied with control, forward planning, productivity, delivery, trouble-shooting, target-setting, personal and organisational achievement, and meeting longer-term goals. Here the details don't matter. What's important is that the creation of a management accounting system can also be understood as a process in which a particular strategy, a particular mode of ordering, was being delegated into non-human materials. The obduracy of enterprise was going to depend on the production and ordering of all those different and heterogeneous bits and pieces.

This, then, is the first point. Actor-network theory – and the Daresbury study as an example of actor-network theory at work – offers us this key insight into the obduracy of distributions: that these are linked to material heterogeneity and the delegation of strategy into materials that happen to last.

Obduracy 2: Multiplicity

And the second point? The point to do with multiplicity? How is it that multiplicity helps to secure obduracy and continuity?

In the abstract the answer is very simple. It is that when one strategy, one mode of ordering, runs into the sands, then another comes to the rescue. For (here is the fatal flaw of simple solutions, single strategies) any single ordering mode will reach its Waterloo, discover its nemesis, and come unstuck. Which means that if the organisation were to depend on that strategy alone, it too would come unstuck. This, yes, is a point which we visited earlier. Purity, pure plan, pure form, are not simply politically obnoxious but are also organisationally and

practically untenable – a point which I explored at some length in Organising Modernity, but which can also be found in Bruno Latour's Irreductions. (13)

Here is one small case. The ruthless logic of administrative propriety would have had the organisation spending untenable sums of money to put its archives into order, something which appeared to be a legal requirement, but one that had not been fulfilled. (14) This expenditure might not have brought the organisation to its knees – but equally, it made little sense from the point of view of turning the organisation into a successful enterprise. The solution? One that was messy: some money to make sure that the records were properly kept in order in the future; but no money to sort out the backlog of mess. Both these strategies, then, were partially blocked. Neither, by themselves, would (perhaps) have been tenable. Purity in ordering was not here an option, and the multiple orderings of the laboratory rolled on.

Here is another example that has to do with the design of a major piece of technical equipment – the so-called 'second Wiggler' and its associated beam-line. The technicalities are fascinating, but it is enough to note that this was a development that held out substantial scientific promise. With the new and intense radiation that would be created, experiments that had hitherto been impossible would become routine. In the first instance, then, to say it quickly, the design of this beam-line lay within a strategy of vocation. It was the materialisation of a future line of scientific puzzle-solving. But this strategy did not proceed in pure and splendid isolation. Each of the other strategies that I identified also played a part in the design. Enterprise, for instance, played a role. Would the set-up being created produce experimental resources which might be rented to cash-paying industrial clients? Well, the answer was yes (here there was not too much of a division between enterprise and vocation since by and large the industrial users wanted state-of-the-art equipment which was not so different from that sought within a vocational strategy). (15) But then administration appeared too, in various guises, the most relevant for our purposes being to do with the health and safety of employees. Of course no-one wanted to get killed by intense beams of X-rays or magnetic fields, but the safety strategies of administration demanded safeguards that might not always have seemed necessary to vocational scientists. For instance, they demanded automatic safety interlocks. It wasn't enough that people followed rules that kept them out of danger: the physical plant was to be ordered in such a way that if they strayed into dangerous places the X-rays were automatically switched off. All of which was then built into – that is delegated into – the physical plant itself.

I won't go further into this here. The point I am making is that no one strategy was ever sufficient by itself. In its purity it would not have lasted. I've given two examples but the point is general. A laboratory based purely on enterprise would have had nothing to sell because:

1. what it sold was a product of the ordering of vocational puzzle-solving; and
2. if it was to secure a return it also depended on the workings of administration to make sure that its bills were issued and paid.

But, conversely, a laboratory based purely on vocation would

1. never have found the necessary ways of raising additional funds by selling its services and thus securing new equipment – something at which enterprise excelled. And
2. it would rapidly have been closed down by the Health and Safety Executive for building lethal facilities.

(Needless to say a laboratory based purely on administration would have been equally unsuccessful!)

Interlude: Articulation and Obduracy

I've made two points about obduracy. This is produced in part by delegation into more durable materials. And it is secured in part by multiplicity – by the interference and (at least sometimes beneficial) interaction between different strategies or modes of ordering. Both of these arguments come from Organising Modernity. But now I want to reflect on a further possibility: that obduracy also similarity as well as difference. I'll explore this by talking about of articulation – the processes that articulate, or fail to articulate, voices.

One of the enduring methodological issues in the book has to do with imputation: the imputation of modes of ordering. Many people asked me: why four? Leigh Star sympathetically suggested that she might have found many and smaller strategies at work. And in the book I also reflected on Michel Foucault's suggestion – mentioned above – that we all, after all, live in a single great modern episteme that sets limits to the conditions of possibility.

So: why four modes of ordering? Why not three, five, or as Leigh Star suggested, many? The immediate and unembarrassed answer is that there is no knock-down answer! In the course of the study I moved from two modes or ordering, to three, and ultimately (amid a good deal of teasing on the part of those who worked there) to four. I also imagined others – for example, an instrumental strategy of working class resistance. So there is no in principle answer. The only response that I could offer at the time (but it seems to be a good on) is that while imputation of patterns (in this case the strategies of modes of ordering) to complex empirical circumstances is always defeasible, the particular pattern that I discerned seemed to work pretty well given the circumstances and preoccupations of the study. The laboratory, I was sure, did not exist within and perform a single logic (notwithstanding the enthusiasm for liberal economics of the Thatcher regime), and that logic depended on others which deserved, so to speak, a voice of their own.

So I don't recant. But the business of articulating, of making a voice, of finding a voice, deserves further examination. And the argument that I want to make (and here I gratefully follow Donna Haraway but also Leigh Star and Ingunn Moser (16)) is that academic work is all about articulation. It is all about finding voices, or (if we take the uncertainties of imputation seriously) it is all about making voices. Let's run, then, with the idea that the Organising Modernity is about making voices. What does the book try to do here? What kinds of voices does it try to make?

Two points. First, it was giving voice to – or making a voice for – the frustrated and sometimes angry strategy of vocation. I've mentioned the source of that frustration above. To say it quickly, vocation, and particularly public-sector vocation, had little legitimate public space in the 1980s in the UK given the political onslaught by Thatcherism and its immoderate commitment to enterprise. In public debate vocation was often presented as parasitic (the public sector should be pared back), resistant to enterprise (the public sector was said to be populated by people with left-wing views who were resistant to necessary change) and/or self-interested and self-serving (the professions, even the 'noble profession' such as the law, were notorious, or so it was being claimed, for their restrictive practices). First, then, the book makes a voice for professional puzzle-solvers. It finds value in – and need for – vocation.

Second, the book gives voice to pluralism. For instance, it also finds need for the due process of administration. (17) In the end it even finds need for enterprise too – as I have already observed, it is not enterprise itself that is treated as the problem, but rather its hubris as the only and unavoidable way of ordering the world. The book, then, is in the second instance to be understood as a defence – and articulation of – a particular version of pluralism rather than, or an addition to, an articulation of vocation. All of which is fine, but is now in need of interrogation. For organisation also produces disorganisation (18). And articulations produce silences or disarticulations. The question, then, is: what does the book not articulate? what voices doesn't it make? what does it disarticulate?

There are some reflections on this in the book. It notes, for instance, that it doesn't deal much with class, and working class resistance, or, indeed, at all with gender and the issue of patriarchy. There are, to say it quickly, almost no women's voices in the book, even in the most straightforward empirical sense. These omissions are problematic but they do have one virtue: they are at least visible. Here are voices, the book tells us, which are not being articulated. The implicit challenge is to articulate voices, strategies, for class and patriarchy which don't get spoken for in this particular organisational study.

But what about those voices that are invisibly absent? But now we hit the difficulty that there are, at least in principle, indefinitely many missing voices. One example: I was not at the time aware at all of questions of ethnicity. Looking back, I don't recall talking to any people of colour at Daresbury. And, just as significantly, issues of ethnicity played no explicit role in the thinking that went into it. Indeed, it is only much more recently in talking with Helen Verran,

David Turnbull and Claudia Castañeda, that I have started to become aware of post-colonialism and its analyses of subalternism – analyses which it is now clear urgently need to be injected into 'mainstream' science, technology and society if we want to understand knowledge and its relations to power (19). I don't mention the absence of ethnicity in order to castigate myself or indeed the book. Rather I cite it both as an example of a missing voice which has become visible for me in retrospect, and because my concern here is how to think about the missing voices that are, so to speak, quite invisible. Voices that might be articulated. Voices that might be made.

There are several possibilities. One could go on looking for excluded and silenced groups. For instance I think of work disabled people (20). Or animals (Lars Risan and Donna Haraway talk of cows and dogs respectively) (21). Or human-non-human assemblages such as feminist cyborgs (22). Alternatively, one could return to the strategies themselves, and ask: what kinds of possibilities do they articulate? And which, correspondingly, do they disarticulate? Which is indeed one of Michel Foucault's concerns when he writes about the modern episteme.

I have already touched on his argument, but let's remind ourselves. In the way that he tells it, the modern episteme is to be understood as a single great all-encompassing set of strategies which produce what he sometimes calls the microphysics of the social, its enactment through the various material forms (architectural, textual, machinic) that I have listed above, the modern disciplined body, and the modern self-disciplining subject. Not to mention certain forms of knowledge, epistemologies of functional detail which match and correspond with the functional world, the ontology, similarly produced in the modern episteme. His emphasis, then, is on similarity rather than multiplicity. Organising Modernity goes looking for difference (as, for instance, does Annemarie Mol in her forthcoming book on disease, The Body Multiple) (23). By contrast, Foucault goes looking for similarity. But what happens if we do this?

The answer is going to come in two parts. It is that it is going to make both visible and invisible articulations and obduracies. But let's look first at what it makes visible. For the commitment to pluralism evaporates. Obduracy is no longer tracked back to difference. Instead, it is located in similarity. For, or so runs the argument, we are all caught in the great episteme, the great enabling predicament, of modernity. And we are all caught up in what Foucault calls the limits to the conditions of possibility. Possible alternative forms of ordering – and the subjectivities and the knowledges which go with these – are simply not available to us. At most, and at best, there are hints of other realities and strategies in rare places around the edges – what Foucault, and following him, Kevin Hetherington, refer to as the heterotopic (24). At which point (and this is the second part of the answer) the part of the answer that has to do with the production of invisible disarticulations and obduracies, Foucault – the radical – finds himself in a serious political predicament. For if one takes this line it appears that there is no way of breaking out of the strategies of the modern episteme. There is nothing to be done. Whatever their endless differences, all voices are made in terms of the same strategic principles. Obduracy is complete.

In Organising Modernity I turned away from this possibility. I was interested in the possibilities of articulating difference. But now, faced with the issue of obdurate disarticulation, it is time to return to Foucault. Or, more precisely, it is time to ask a rather smaller-scale question which follows on from Foucault's understanding of the modern episteme. The question is this: Are there are not similarities as well as differences between the different modes of ordering in the Daresbury study? Do they not have strategic elements in common? And if so, does this tend to add to the obduracy of ordering?

Obduracy 3: Strategy and 'The Return'

Let's go into this by thinking about Andrew.

He's at his desk one morning, scowling at a spread-sheet. What is the problem? The answer is that he's comparing the project plan for the Second Wiggler with the progress that's actually been made. And there is a difference. The project – a project of vital importance to the future of the laboratory, the so-called 'flagship project' – is beginning to fall seriously behind schedule. How does he know this? The quick answer is that the plan for the project has

established a number of mileposts – mileposts which define, amongst other things, how much 'manpower' (I use the laboratory vernacular) should have been committed to the project by given dates. But when he looks at the reports of the manpower used it turns out that these are much lower than the targets that have been set in the plan. The contingency time for the project, the slack allowed in the planning to make up for delays, is already largely used up, even though the project has only recently started.

Here Andrew is being constituted as a large-scale strategist. Two comments about this:

- One: he is being made into what Bruno Latour calls a centre of calculation (25). Information is being created, collected, assembled, transcribed, transported to, simplified and juxtaposed in a single location, a centre, a panopticon, Andrew, where everything that is relevant can be seen. We could explore the networks, the translations, and the flows which generate him, his computer, and his desk, as a centre of calculation. If we were to do so we'd find, inter alia, a set of socio-technologies for generating inscriptions – traces which stand in, in a single place, for a whole set of events and processes distributed through time and space – a process of creating representations in one place – and continuing to create representations in one place. (26)
- Two: Andrew is also being made into an obligatory point of passage or a centre of translation: crudely, this means that when he issues orders something happens. Orders, for instance, to increase the level of manpower on the Second Wiggler. Orders which are not ignored. Again, it is possible to detail the network of socio-technologies entailed in this. These involve what amounts to a return journey – out from Andrew's desk, through memos, notes, emails, verbal commands, to skilled people and a bunch of tools, machines, computers, and organisational arrangements. Out, in other words, from the centre of this network to the periphery. To produce effects out there on the periphery. (27)

What does this teach us? The answer is that Andrew-as-strategist is a strategist because he-and-his-computer lie at the centre of a network of relations which have turned him indeed into a centre. And this has happened because there is a circular flow of what Bruno Latour calls immutable mobiles out from the centre (in the form of commands, demands) and back to the centre (in the form of representations and other returns). The centre becomes a centre as a result of the asymmetrical configuration of this network and the flows that move along it. The efforts of all the elements in the network are directed by, and belong to, the centre which comes to stand for and articulate them all. Like a capitalist firm, it 'profits' (I use the term metaphorically as well as literally) because it secures a return. A return to base.

All of which is elementary actor-network theory. But the important point in the present context is that the same pattern, the same asymmetries which perform a distinction between centre and periphery, the same 'logic of the return', in enterprise are also at work in vocation and administration. Yes, there are differences. It was the differences to which I attended in Organising Modernity. But the similarities are just as real. For instance, the vocational scientist gathers and treats with data – those representatives of phenomena widely dispersed through time and space. And then she works upon selected features of the world in order to secure those data. She, too, is both a centre of calculation and a centre of translation. She, too, secures a return, the return which was precisely explored by Bruno Latour and Steve Woolgar in Laboratory Life (28). But the logic of the return applies just as much again to administration – for here again there is a centre, there are flows between that centre and its peripheries, and those flows take the form of translations (on the way out: 'do this', 'do that') and representations (miniaturised and concentrated depictions of events that are spread out through time and place which take, for instance, the form of committee minutes or bookkeeping).

My argument, then, is that notwithstanding their differences, enterprise, vocation and administration have in common that they produce a return. They have in common that they work by generating a centre and its peripheries. And they have in common that that centre and those peripheries are generated by flows which go out and back. And that those flows take the form of translations (on the way out) and representations or articulations (on the way back in). They all work within the logic of the return (29). It is therefore unsurprising to discover that though they sometimes fight, they are also, at least at times, quite happy to co-exist. For there is nothing in their basic ontologies that separates them. They share a general

approach to the world and its possibilities. A general approach that assumes the need for centres, centred subjectivities, and the need to, the necessity, to come back. A general approach which indeed sets more or less shared limits to the conditions of possibility. A general approach which increases the obduracy of those conditions of possibility. And, the crucial discovery, a general approach which disarticulates that which does not comply with the logic of the return.

Obduracy 4: Strategy

I've made three arguments about obduracy and way this secures asymmetries in distributions, including the distributions of articulations. First, I've said that these asymmetries are secured more in a more robust manner if they are delegated into more durable materials. Second, I've said that these are secured more firmly to the extent that they can play upon the flexibility of strategic multiplicity and pluralism. And third, I've also said that they are sustained more durably by virtue of the way in which the different strategies within that pluralism also tend to resonate with one another – and in particular to secure articulations within what I have called the logic of the return.

But I want to conclude with a final thought – and it is one that I touched on earlier when I talked about Foucault's modern episteme. There I noted that the virtue of stressing similarity (what it is that the strategies within the modern episteme might have in common) is that it makes the obdurate articulations and disarticulations of modernity and both visible and invisible. It makes the articulations visible because it allows us to explore the logic of the modern disciplinary strategy. Indeed, my analysis of the return can be seen as a specific example of this: articulation becomes possible in Daresbury Laboratory to the extent it accords with a logic of the return – or, to be more precise, certain specific versions of the logic of the return, those produced within enterprise, vocation and administration. At the same time certain disarticulations are thrown into relief in this analysis. I've mentioned two versions of this disarticulation.

- First, there are the other laboratory versions of the return that don't fit enterprise. Sometimes, at least, in the political climate of the 1980s, these were disarticulated and silenced by the hubris of enterprise.
- Second, there are disarticulations which didn't find a place in the stories that I told in the laboratory: I've mentioned class, gender and ethnic voices.

But what is it that allows us to make these articulations visible? At least potentially, to give them a voice? I think that the answer is a reflection of Foucault's political predicament that I mentioned above. It is that they all lie within, or help to produce, the modern strategic episteme. And, in particular, that they can all be understood as versions of the logic of the return. This is an argument that I cannot explore properly here – and indeed it deserves careful elaboration. But it is my suggestion that the possibility of articulating voices for (for instance) class, gender or ethnic collectivities is precisely secured by virtue of the fact that they, too, can be treated as projects which have the possible effect of making a centre – the collectivity in question. They can be understood precisely as strategies for securing a return for that centre – in the form of representations which give (or make) voice. And they can be understood precisely as strategies which, as a part of this, require the production of mechanisms of translation which will secure an ordering which is less unjust in terms of (for instance) the distributions that derive from class, patriarchy and ethnicity.

To note that these politically liberatory projects lie within and draw strength from the logic of the return is not to seek to undermine their importance. The modern strategy of the return remains an essential mode of articulation – and a great deal stands and falls in the struggles between the different versions of the return that subsist within this great strategy for articulation. Whole orderings, forms of knowledge, sets of subjectivities, and distributions of power are at stake. But there is something else too. For, taken together, the articulations within the logic of the return secure their strategic obduracy – which means that they tend to disarticulate any orders that do not fall into and reproduce this strategic pattern.

Indeed, it is possible to make the point even more precisely – and this takes us straight to Foucault's political predicament. As organisational sociologists David Knights and Glen Morgan some while ago noted, Foucault's understanding of the modern episteme (indeed its

predecessors too, though I leave this on one side here) depends upon – is built around – the notion of strategy (30). In his analysis epistemes are hegemonic strategic arrangements. They work displace alternative strategies. This is why they set limits to the conditions of possibility. That which lies outside (for us) the modern strategy is not possible, not thinkable, not liveable. It does not exist. But (and this is Knights' and Morgan's central point) to talk of strategy also poses problems. The notion, they observe, did not always exist. It has its own historical genealogy – derived no doubt from the military. It is not that it is necessarily inappropriate. It may well help us to understand the implicit and explicit orderings performing themselves, for instance through the managerially-relevant sections of Daresbury Laboratory – or indeed in the Western world, over the last two hundred years. But as a general term for understanding ordering it will not do. So, to put the point in the language that I have struggled with in this paper, the notion of strategy (which runs not only through Foucault's genealogy, but also through my own analysis in Organizing Modernity is to disarticulate and an unmake any possible voices that are not strategic. That do not subsist within the logic of the return.

This, then, is the final and obdurate distribution: that we work and write within strategy, within the logic of the return. That we therefore collude in disarticulation of possibly non-strategic voices – a collusion that is almost impossible to resist, given the productivity of strategy in its modern disciplinary form. There are, it is true, many straws in the wind. Talk of fluidity and fractionality, talk of mobile identities, attempts to refuse a politics of identity, metaphors such as diffraction, partial connection, interference, oscillation, or fire – there are many attempts to push up against the limits that are set by the conditions of strategic possibility. But this is work that still has to be done – and it is work which will, I think, require the creation of something very different from the modern academic and political conditions of production. But this is where I stop. Up against my own version of the limits to the conditions of possibility, I simply note that the jangling asymmetries in power and articulation that they produce are obdurate. Indeed hegemonic.

Notes

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(1) The reference is Law (1994).

(2) For further commentary see Cooper and Law (1995).

(3) See, in particular, work from the actor-network tradition. For an introduction see Latour (1987), Law (1992) and, most recently, Law and Hassard (Law and Hassard 1999). For debate about human and non-human actors see the exchange between Callon and Latour (1992) and Collins and Yearley (1992).

(4) See, For instance, Mol (1998; 2001; 1994).

(5) For examples see Mol (2001) and Law (2001).

(6) Here the argument owed much to Zygmunt Bauman's understanding of the Holocaust. See Bauman (1989).

(7) Foucault develops these arguments through the entire body of his work. See, for instance, his (1971; 1972; 1976; 1979).

(8) Barry Barnes, writing in a different tradition, usefully distinguishes between 'power to' (power as the productivity of social relations) and 'power over' (the differential distribution of productivity), like Foucault giving analytical priority to the former. See Barnes (1988).

(9) The quotation comes from Karl Marx and Friedrich Engels' The Communist Manifesto. See their (1967).

(10) For different examples of the genre see Castells (1996), Harvey (2000) and Lash and Urry (1994).

(11) On actor-network theory see Latour (1987), Law (1992) and Law and Hassard (Law and Hassard 1999). For feminist materio-semiotics see Haraway (1991a; 1991b; 1992; 1997).

(12) See Callon and Latour (1981).

(13) See a beautiful Interlude to his Irreductions. In this he talks about the way in which colonialism came in the variegated form of priests, administrators, geographers, merchants, soldiers and engineers. These all arrived, says Latour, simultaneously, while also, and endlessly, insisting on their differences. Then he goes on:
'If they had come completely united, sharing the same beliefs and the same gods and mixing all the sources of potency like the conquerors of the past, they would have been still more easily defeated, since an injury to one would have been an injury to all.
But they came together, each one separated and isolated in his virtue, but all supported by the whole. With this infinitely fragile spider's web, they paralyzed all the other worlds, ensnared all the islands and singularities, and suffocated all the networks and fabrics.' Latour (1984) page 203.

(14) For details see Law (1991). In fact, as it transpired, it was not a legal requirement – the rules had been misunderstood.

(15) The real struggle came in getting access to the best facilities once they were available – for what they called 'beamtime' was a scarce resource.

(16) See, for instance, Star (1991) and Moser and Law (1998a).

(17) The necessity of administration has recently been explored by Paul du Gay. See his (2000).

(18) The argument is developed from its post-structuralist origins in Robert Cooper's (1986).

(19) See, for instance, Castañeda (1999), Turnbull (1993; 2000) and Verran (1998).

(20) In the context of science, technology and society, see Moser (2000; 1998a; 1998b; 1999) and Callon and Rabeharisoa (1999).

(21) This work is new and is currently unpublished. But see Smart (1993) for an actor-network informed analysis of animals and animal subjectivities.

(22) See Haraway (1991a) and Moser (1998).

(23) See Mol (2001).

(24) See Foucault (1986) and Hetherington (1997; 1999; 1997)

(25) Here I draw on Bruno Latour's important paper, 'Drawing Things Together.' See Latour (1990).

(26) The argument about inscription devices is spelled out in Latour and Woolgar (1979).

(27) This style of analysis is developed in a series of empirical studies in the actor-network tradition. See, for instance Callon (1986), Latour (1988) and Law (1986).

(28) See Latour and Woolgar (1979).

(29) The argument about the logic of the return is further considered in Law and Hetherington (2000).

(30) See Knights and Morgan (1990).

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