

# THE GREER-BUSH TEST: ON POLITICS IN STS<sup>1</sup>

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## Problem

Consider this juxtaposition.

On page 22 of the arts section of the UK's Guardian newspaper on August 3<sup>rd</sup> 2009 there was an article by feminist author, Germaine Greer<sup>2</sup>. Greer was writing about an atheist summer camp:

'One of the most popular exercises is the invisible unicorn challenge. The children are told there are two invisible unicorns who live at Camp Quest but that they cannot be seen, heard, felt or smelt, and do not leave a trace. A book about them has been handed down through the ages but it is too precious for anyone to see.'<sup>3</sup>

They are also told that all the adults in the camp believe in the existence of the unicorn. The camp organiser says that the idea is not to 'bash the idea of God – just to make the children think critically and rationally'<sup>4</sup>. The article adds that the exercise has been running since 1996, but no-one has so far won the prize.

Reflecting on the mediaeval significance of unicorns, Greer comments that we have lost sight of their meaning:

'both God and the unicorn exist as ideas, and ideas, whether muddled or not, are real. The imagination of a child who was utterly unfamiliar with either God or the unicorn would be cruelly impoverished.'

Juxtapose this with another article that appeared on page 23 of the comment and debate section of the same newspaper on the same day. By Gary Younge, the newspaper's North America correspondent, this is on the continuing controversy about US President Barack Obama's place of birth. Notwithstanding evidence in the form of a birth certificate and birth announcements in 48-year old copies of two Hawaiian newspapers, 28% of Republicans purportedly believe that their President wasn't born in Hawaii but overseas, and another 30% aren't sure. Younge describes how 'birth deniers' explain away evidence that does not fit and argues that this style of denial needs to be taken seriously. He adds:

'A senior Bush aide once ridiculed a New York Times reporter over his adherence to "the reality-based community", which he described as people who "believe that solutions emerge from your judicious study of discernible reality". "That's not the way the world really works any more. We're an empire now, and when we act, we create our own reality. And while you're studying that reality – judiciously, as you will – we'll act again, creating other, new realities, which you can study too, and that's how things will sort out. We're history's actors ... and you, all of you, will be left to just study what we do."<sup>5</sup>

Coming in the same newspaper on the same day, I was uneasily struck by resonances between Greer's comments and those of this anonymous aide, so let me compare and contrast. First, comparison.

In both what the Bush aide calls 'discernable reality' is being pared down: it is no longer independent of human action. I find this unnerving, partly because STS has

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<sup>2</sup> Greer (2009).

<sup>3</sup> Morris (2009).

<sup>4</sup> Morris (2009).

<sup>5</sup> Younge (2009). For the original New York Times citation, see Suskind (2004).

been saying something like this for a generation<sup>6</sup>. Since the rise of the sociology of scientific knowledge, STS has claimed that knowledges are socially constructed. And since the development of actor network theory and feminist material semiotics it has also been arguing that realities are enacted too. All in all, it seems likely that the Bush aide would agree with the STS material semiotic sensibility that reality is not destiny.

That's the comparison. The contrast is a little more reassuring. Greer is saying that ideas are real and that we live impoverished lives without them. As a part of this she has an historically contexted way of thinking about what counts as real. So, for instance, commenting on a 15<sup>th</sup> century Flemish tapestry depiction of a unicorn in London's Victoria and Albert Museum she observes: 'Without knowing more about the [contemporary] idea of the unicorn, there is no way I can know what I am looking at.' In her world ideas are located and specific but they are a matter neither of blind faith nor desire. Against this, the Bush aide is offering performativity in an immodestly imperialist version. He's saying that whatever is done by an empire is real. 'The reality based community' can pick through 'discernable reality' to its heart's content but it will never catch up with the real agents of history. Here, then, imperial might is right, it enacts the real, and that reality is not discernibly detectable at the time. Greer is a controversialist, but she is scarcely guilty of imperial hubris.

Here's a preliminary diagnosis. I think we're being confronted by two versions of what, following Donna Haraway, we sometimes call 'situated knowledge'. Truth is being done in a self-advisedly contexted manner in both. But here's the problem. It is important to find ways of teasing them apart. If we can't do this then STS becomes just another apologist for power. So what is to be done? How might we think about contexted truths and hold the claims of imperial hubris apart from Greer's kind of historical contextualism?

This is rough and ready, but I suggest that it is useful to distinguish between three large strategies for doing this within STS. Call these constitution, descriptive prescription, and interference. Constitution tries to move from description to general stipulations for distinguishing truth from power. Descriptive prescription sustains a normative distinction between knowledge and power by mobilising tacit assumptions about their de-facto institutional separation and (as a part of this) its own privilege. And interference pictures itself performatively as an interwoven description-and-normative-intervention located in more or less specific circumstances. In what follows I briefly explore each of these strategies and consider how they handle what we might think of as the 'Greer-Bush' problem. I conclude by making arguments for interference.

## **Constitution**

Normativity has become fashionable in STS<sup>7</sup>. In one of its modes it offers more or less general rules or procedures for distinguishing goods from bads. Harry Collins and Rob Evans, for instance, argue that in handling problems of expertise, science studies:

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<sup>6</sup> Other branches of deconstruction do this too, and perhaps most notoriously Baudrillard, but I'll stick with STS.

<sup>7</sup> Lynch (2006, 820).

'must emphasize the rôle of expertise as an analyst's category as well as an actor's category, and this will allow prescriptive, rather than merely descriptive, statements about the rôle of expertise in the public sphere.'<sup>8</sup>

In this way of thinking experts, STS-practitioners included, are taken to have specific areas and forms of expertise. In practice there are many complexities, but the authors handle these by distinguishing between different forms of expertise that share different kinds of cultural understandings, skills, and embodied competences<sup>9</sup>. There can be no long term guarantees, but at any particular time it is important to be as clear as is possible about the forms of expertise and how these are distributed.

What does this mean if we want to distinguish expertise from politics? Here's the answer. It may be complicated in practice, but in principle STS can help to sort out which community or set of experts can and should speak about what, and how. It's not that non-credentialed groups have nothing to say. On the contrary, many have particular forms of expertise. But there are arenas in which the views of (say) publics or politicians cannot properly displace expert technical competence and judgement. Here's my point. Starting from a descriptive account of the character of expertise including that of STS, Collins and Evans create prescription in the form of what I'm calling a constitution. That is, they propose a systematic procedure for appropriately determining who has rights to speak about what and how. Expertise can be distinguished from power or blind prejudice, and it is STS's duty to help in this vital task.

Collins and Evans do not talk of 'constitutions'. In order to distribute rights to speak Collins creates a periodic table of expertises<sup>10</sup>. Within STS, talk of constitutions comes instead from Bruno Latour, whose project is in many respects quite unlike that of Collins and Evans. He is concerned with determining what there is in the world on the one hand, and the business of making a common world that includes this on the other. The process starts with plurality: there are sciences in the plural, and social sciences or politics too, also in the plural. This is a relational ontology: what there is in the world, social and natural, is an effect of uncertain and provisional relations of representation, political and scientific. But after multiplicity comes a strain towards the singular. To talk of a 'common world' is to designate;

'... the provisional result of the progressive unification of external realities (for which we reserve the term "pluriverse"); the world, in the singular, is, precisely, not what is given but what has to be obtained through due process.'<sup>11</sup>

So there's a variable ontology, there are representations, and there's need for a common world. But how to assemble it? Latour is telling us this should be done slowly, appropriately, and in conformity with due process – that is, constitutionally. So in the constitution of political ecology the real and how it goes together is properly done in a manner that is 'willful, explicit, [and] spelled out.'<sup>12</sup>

For most purposes Collins/Evans and Latour are poles apart, but in one important respect they aren't: both offer explicit and general stipulative procedures for composing the world and its knowledges. Latour says of the term 'republic' that:

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<sup>8</sup> Collins and Evans (2002, 240). Their italics.

<sup>9</sup> Collins and Evans (2007).

<sup>10</sup> Collins and Evans (2007).

<sup>11</sup> Latour (2004, 239). His italics.

<sup>12</sup> Latour (2004, 239).

'it designates the collective in its effort to undertake an experimental search for what unifies it; it is the collective assembled according to due process and faithful to the order of the Constitution.'<sup>13</sup>

Their terminology would be entirely different, but these sentiments apply almost as well to Collins and Evans. This is why I want to suggest that both sets of authors are constitutionalists.

How, then, does constitutionalism handle the Greer-Bush problem? The answer is: easily. Bush (or his aide) first. The deniers are refusing due process. For Collins and Evans they are surely failing to recognise appropriate contributory expertise. For Latour they are refusing the role (and the skills) appropriate to the proper experimental exercise of perplexity and consultation. Either way, they are out of line. And Greer? For Latour she passes precisely because she's trying to exercise historical perplexity and consultation. In early modern Europe unicorns were no doubt a proper part of the common world. For Collins and Evans, Greer is touching on the culture of core sets – on what the early modern contributory experts knew about unicorns. She is, in short, pointing towards the need for an appropriate contextual history of expert knowledge.

Does this therefore mean that we should line up to become constitutionalists? The temptation is self-evident. In a world combining multiplicity with imperial hubris, constitutions offer a seeming way of separating good knowledges from bad. Of distinguishing truth from power. Or separating what is (or it is appropriate treat as) real from whatever is not. Constitutionalism is tempting too, for other reasons. As Latour observes, constitutions are clear, they can be spelled out and made explicit. They organise accountability. They offer general solutions. And, more specifically, those solutions suggest ways of how to live well in a common world. So what is there to lose?

Here's the response. A lot. If we become constitutionalists we're losing location and specificity. We're losing contingency. We're adopting a particular political or legal mode of thinking about what it is to live well together. We're assuming that there is indeed a common world or collective within which we live and need to live well in together. And finally we're forgetting that rules and procedures do not actually rule: that in practice the world is irredeemably messy. We're forgetting, in short, some of the most basic lessons taught to us by STS. A brief excursus, then, into the history of STS<sup>14</sup>.

## **On Prescriptive Description**

Much of STS is famously, some would say notoriously, descriptive. Politically radical critics, even or especially those who have participated deeply in it, have always worried about this<sup>15</sup>, and indeed, for Collins and Evans too this is precisely the problem. Description is fine, but now we need to add prescription. So how did so much of STS become so profoundly committed to description and so far removed from prescription?

At the beginning of the sociology of scientific knowledge (SSK) David Bloor proposed the principle of symmetry. Scientific knowledge, he said, is constructed in interaction

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<sup>13</sup> Latour (2004, 248).

<sup>14</sup> Any history is selective. As will become clear, I am here treating only with SSK and its successor projects, ANT and 'after ANT', and the feminist material semiotics of Donna Haraway.

<sup>15</sup> For a single relatively recent example, see Haraway (1997).

between the natural world and specialist scientific cultures. We may believe in that knowledge or not, think that it is true or otherwise, but if we want to analyse it then our views on its adequacy are beside the point. All knowledge needs to be described and explained in the same terms<sup>16</sup>. Here, then, was a device for undoing a specific set of prescriptions: those of epistemology. Is there such a thing as general methodological due process in science? The SSK answer was: no. Truths arise out of the practices and procedures of specialist cultures as these solve puzzles, and if we want to understand how science works then we need to describe the specificities of those cultures.

This, to be sure, was non-prescriptive in a very particular way: it was anti-epistemological. Indeed, in another way it was straightforwardly prescriptive. Think of Bloor's symmetry principle. Surely that is a prescription if ever there was. And something similar happened when actor-network theory (ANT) later came along and extended the principle of symmetry. Michel Callon told us that when we study science we should not only avoid letting in judgements about truth, but also avoid making assumptions about what there is in the world. For ANT we're caught in a world of variable ontology, this is a relational effect, and if we are to understand how the world is done we first need to wash away any assumptions about what it contains. We need to go and see what there is instead<sup>17</sup>. Here, then, is a second prescription about not being prescriptive, in this case aimed not so much at epistemology as at the foundational distinctions of humanist sociology such as the divisions between nature and culture, human and non-human, or macro and micro.

If much of STS practice was organised around the prescription to be non-prescriptive, then the purpose of this was to make better descriptions – and it certainly did that. The case studies were many and marvellous. But what of the Greer-Bush problem? Did this descriptive STS ever take sides against anything? Or, perhaps more to the point, did it have any internal intellectual apparatus that would allow it to take sides?

There are different responses to these questions. Many authors tinkered creatively. Values and politics were often added in one way or another. But let's focus on the internal intellectual apparatus. SSK first. The most straightforward answer (though it needs nuancing<sup>18</sup>) is that SSK had (and has) no explicit internal way of distinguishing between truths and distortions. But, here's the crunch. Forty years ago it needed this much less than it does now. This is because it simply worked on the assumption that while there are many kinds of culture, in any given location what counts as science and scientific truth is obvious. The epistemological authority of the latter is clear, the disputes, if disputes there be, are between different specialists. Empirically, of course, power might intrude, but in principle it is self-evidently distinct from scientific authority. Indeed, in one of the finest studies in the SSK tradition, Steven Shapin and Simon Schaffer described precisely how power was separated from truth in post-Restoration England<sup>19</sup>. De facto, then, if not de jure, the problem was solved. The two could be held apart. But here's the problem. It is increasingly obvious that this separation is no longer tenable. Perhaps the power/science division was always weaker than it seemed in SSK, or perhaps the division has actually

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<sup>16</sup> Bloor (1976).

<sup>17</sup> Callon (1986).

<sup>18</sup> For instance, Barnes (1977) distinguished between a proper interest in prediction and control, and an illegitimate and concealed interest in social control.

<sup>19</sup> See Shapin and Schaffer (1985).

declined in the post-World War II period. Either way, it is now obvious that: there are 'lay experts' (again both SSK and ANT have much to say about this<sup>20</sup>); there are public conflicts between different forms of expertise; there are new forms of technoscience that seek efficacy and appear quite indifferent to truth; there is research in the wild<sup>21</sup>; and there are 'deniers' who know how to use arguments taken from constructivist SSK to erode the authority of science in particular contexts<sup>22</sup>.

All this has led to crisis for a (prescriptively) descriptive SSK: it is no longer able to trade implicitly on the institutional authority of science in order to distinguish good from bad. That authority itself is variably under attack from all and sundry, ranging from climate change deniers to those who resist GM crops, while science 'itself' (whatever that category might mean) is routinely paid for, mimicked, shifted and/or hi-jacked by the market. In short, SSK is in urgent need of ways of sorting warranted sheep from self-serving and politically-interested goats. Which, of course, is precisely the appeal of Collins' and Evans' constitutionalism, and helps to explain the more general preoccupation of SSK with normativity.

Does ANT fare any better? What is there to say about its internal apparatus? Is there anything within ANT that offers its authors a way of taking sides?

First a basic point. Though some critics misunderstand this, ANT insists that enacting the relations that do realities is devilishly difficult and expensive.<sup>23</sup> This is because, as Bruno Latour and Steve Woolgar showed, for any scientific practice there's an obdurate hinterland of embedded practices that cannot simply be wished away. Instead, if candidate new realities are to be enacted into being, that hinterland has somehow or other to be included and handled<sup>24</sup>. Laboratory practice has somehow to take the appropriate technoscience hinterlands and provenances seriously. Then, additionally, ANT also works on the assumption that practices are materially heterogeneous. In particular, it insists that they are simultaneously social, technical and scientific in character.

How, then, does ANT make distinctions between different kinds of practice? If we look through its studies we often discover that it didn't bother: it simply attended to heterogeneity by piling fuel on the bonfire of the dualisms. It was saying that sociological categories are unhelpful if our concern is to describe how technoscience assembles itself. Sometimes, however, it looked for and started to describe different ordering strategies<sup>25</sup>. It distinguished, for instance, between the characteristic strategies of technoscience, the law, religion, and bureaucracy. Such distinctions are particularly noticeable in the work of Latour and Law<sup>26</sup>. In this way it developed its own internal apparatus for distinguishing, describing and characterising different forms of practice (which suggests the possibility of an entertaining ANT account of the strategic differences between Greer and the Bush aide). But this was also a descriptive apparatus. It wasn't immediately prescriptive and did not intrinsically have to do with taking sides<sup>27</sup>. Hence the often-voiced complaint within STS that ANT has

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<sup>20</sup> Waterton and Wynne (1999); Callon and Rabeharisoa (2008).

<sup>21</sup> Callon and Rabeharisoa (2003)

<sup>22</sup> Lynch and Cole (2005).

<sup>23</sup> Latour and Woolgar (1986).

<sup>24</sup> Law (2004).

<sup>25</sup> Law (1994).

<sup>26</sup> Latour (1998); Law (1994)

<sup>27</sup> Again this needs to be nuanced. Luc Boltanski and Laurent Thévenot (1987) who also distinguished a series of different ordering logics within practices, proposed, at least in their early work, that purity in

no politics, and that its power of description was won at the expense any serious attempt at political engagement.

## Interference

So that's a version of STS history. Much of the discipline was founded on description. If we fast forward, it becomes clear why constitutionalism might be appealing, why it is that Collins and Evans think we need to move from description to prescription, and why Latour is proposing an ecological constitution. Surely, the argument runs, in an uncertain world we need some guidelines. We need to commit ourselves to some kind of due process.

But there's a tension here. In STS, to describe is to attend to local and more or less unruly specificities. If we describe well, we can never be quite sure what we will find, what will turn out to be good knowledge, and what will not. Or, in the ANT version, it is to be uncertain about what there is in the world and what there is not. That's what STS has been telling us for a generation, first epistemologically and more recently ontologically as well. But (here's the tension) to prescribe is to insist on the importance of more or less general rules, or to stipulate more or less general procedures. Indeed, if we look at the move to constitutionalism in SSK we find that it is replacing an older and discredited generation of epistemological rules with a younger generation of specified social distinctions between different kinds of experts (this is what Evans and Collins are doing). Alternatively, in its ontological versions it is replacing sociological divisions (for instance the distinction between human and non-human) with specified forms of heterogeneous due process (which is what is being proposed by Latour). So, here's the question: is there a political and analytical alternative to constitutionalism? Is it possible to attend to specificity and to be political at the same time?

The questions are rhetorical. The answer is: yes, of course. This is being done in STS anyway. Indeed it has been done in STS for a long time. Feminist technoscience writer Donna Haraway (one of those who has worried about the absence of politics in ANT and SSK) has shown us how to do this by attending to the location and performativity of her own practices. Like any other practices, what she does is situated. We are all, as she puts it, located in the belly of the monster. The idea that we could climb out and look down to get an overview makes no sense. Those who imagine that they can do this are misleading themselves in a particular version of what Shapin and Schaffer call 'modest witness'. It simply isn't possible, as she puts it, to see everything from nowhere<sup>28</sup>. But there's more, and here she's close to the ANT I have described above. Our knowledge practices, she insists, are performative. They make a difference in one way or another, whether we like it or not. Perhaps unpredictably, they interfere in their object of study. They diffract it. They move it on or they help to re-do it. Any idea that our descriptions are innocent is a chimera.

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those logics was a source of strength and stability for social ordering. By contrast, the ANT writers tended to insist on the empirical reality of impurity. Latour notoriously cited Michel Tournier's re-written version of Defoe's Robinson Crusoe with its advice: 'Méfiez-vous de la pureté, c'est le vitriol de l'âme.' Latour (1984, 171). This was easily extended normatively and politically, first to the idea that modernity misunderstands itself if it thinks that it is pure (Latour (1984, 265; Latour: 1993), and then to the idea that multiple orderings are a good (Law (1994).)

<sup>28</sup> Haraway (1991b).



Haraway is Political with a capital 'P'. She variously characterises herself as feminist, socialist, anti racist and anti-militarist. But what does this mean in practice? The answer is that her descriptions are also intended as interventions. So, for instance, her accounts of primate research show how much of this is both located in and helps to reproduce patriarchy<sup>29</sup>. The effect is to interfere with that patriarchy. Her cyborg trope simultaneously characterises and interferes with the cold war male cyborg of the US 1960s by setting this against a feminist and anti-militarist version of this figure<sup>30</sup>. Her work on companion species intentionally interferes with reductive human-centred relations between dogs and humans that fail to recognise significant Otherness<sup>31</sup>. All of these, then, are simultaneously empirical descriptions and interferences. And – here's the rub – none is even remotely constitutional. Haraway offers nothing resembling classificatory schemes for distinguishing good from bad. She isn't offering general rules of method. She doesn't hint at the need for due process. Indeed, it isn't even clear that she's committed to the idea of a common world. What she does offer, however, is powerful but specific and situated tools for working in and upon particular analytical and political problems in order to know these better and to move them on.

Interference is Haraway's term but something not dissimilar is happening in the successor projects to ANT. For instance, Annemarie Mol's description of lower limb atherosclerosis explores how this condition is enacted in a series of health care practices in a Dutch city<sup>32</sup>. Since those practices differ, so too does the condition. We are back, then, to the multiplicity of variable ontology. But this is an entirely practical problem for health-care practitioners: each day they need to work out what to do with their patients. Sometimes this is easy. The multiples of the condition neatly dovetail together. Often, however, they don't, and it is much less clear what needs to be done. So far, so good. This is STS in descriptive rather than prescriptive mode. But Mol is not in the slightest bit tempted by constitutionalism and offers no medical version of legal due process. She suggests no formula for building a common world of lower limb atherosclerosis. Indeed, the notion of a common world makes little sense, unless we reinterpret this in a local, modest and practical way to refer to case-by-case and more or less ad hoc discussions and negotiations in the professional case conferences about what is to be done for the patient in question. So what is the intervention?

The answer is that it is partly philosophical. In the way I've just noted, it casts doubt on the idea of a common world. At the same time, however, it is also specific to a particular location in the health care system. So, for instance, she is also saying that in the current state of art in the treatment of lower limb atherosclerosis in the Netherlands it would make sense to think about what counts as 'better' in other and different ways. And, as a part of this, it would help to shift the object of treatment itself – from anatomy to the practices of everyday life. This is a shift in the real, in what there is, and what's important too. It implies treating atherosclerosis not so much as something in the arteries (an anatomical object), but as something to do with daily practice (the pain of the patient when she is walking). It also implies that intervention is more likely to take the form of physiotherapy than surgery<sup>33</sup>. This

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<sup>29</sup> Haraway (1989).

<sup>30</sup> Haraway (1991a).

<sup>31</sup> Haraway (2007).

<sup>32</sup> Mol (2002a).

<sup>33</sup> Mol (2002b).

doesn't sound so dramatic. But it is a form of interference, it is about making a difference. And it is not only important for those suffering from lower limb atherosclerosis, but also potentially so for those in many other health care sites and situations where the 'daily life' of people rather than their 'deviance' deserves care and attention.

Recent STS work in health care multiplies examples of such more or less specific interferences. For instance, Ingunn Moser, writing on the management of Alzheimer's disease, argues for an analogous switch of resources from biopharmaceutical to interactive therapies<sup>34</sup>. She notes that currently most resources are sucked into high status biomedical solutions that are only marginally effective even in their own terms. At the same time there is a shortage of resources for interactive care. But as with atherosclerosis, what counts as 'effective' is again embedded in assumptions about the nature of the disease. If Alzheimer's is a biomedical object in the brain, if that is what it is, then care procedures that improve daily life may be desirable, but they are beside the point medically because they do not have to do with the 'disease itself'. But this is precisely what Moser is arguing against. The disease, she is saying, belongs at least as much if not more to daily practice, its conduct, and its organisation. And if this is right, then what is needed is a double move. What there is in the world and what is right, best, the appropriate form of intervention, both need to be shifted and they need to be shifted together.

What happens if we think about lower limb atherosclerosis and Alzheimer's disease together in the way these are handled by these authors? Here's the answer. What's important is that neither Mol nor Moser are in the business of offering general stipulations. Instead they are showing us that the ontology embedded in and enacted by care practices sits poorly in certain respects with the ontology embedded and enacted in front-line biomedical research. In these particular circumstances. And, instead of stepping back to propose a procedure for regulating this, for sorting out right from wrong, better from worse, or good from bad, they simply – or not so simply – take sides. In these desperate struggles they put themselves on the side of care.<sup>35</sup>

## Conclusion

In an STS that has built itself around description, the appeal of the normative and of the constitutional is obvious. In a world of epistemological uncertainty and ontological variability, constitutionalism offers the promise of a general way of distinguishing truth from error, expertise from prejudice, and reality from fantasy. It's appealing, too, in a world that demands general protocols and solutions. Then again, as I have shown, constitutionalism in both the forms touched on here passes the Greer-Bush test. But there is a price and that price is fatal. It does so by abandoning STS's greatest strength: its commitment to description and (this is the crucial point) its concomitant willingness to attend both empirically and politically to the disorderly specificities of the world.

If there were no alternative strategy for making a difference then the appeal of constitutionalism would be overwhelming. But there is such an alternative: it's called interference. As I have tried to show, in this strategy STS describes and so attends to the specificities and uncertainties of the empirical. But it also intervenes because its descriptions are always and necessarily performative and so they make a

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<sup>34</sup> Moser (2008).

<sup>35</sup> Mol (2008).

difference. How do they do this? The answer is: it depends. And this is the core point. Interference knows that the differences that it makes are embedded in the specificities; that they rest in the interferences between the specificities of STS practice, and those of the practices it describes.

As Haraway's work shows, these may look political in the standard sense of the term. Applied to the Greer-Bush test they would no doubt look so too. Is there room for Otherness? Apprehension of difference? Respect for that difference? The answer to these questions is surely 'yes' for Greer, and 'no' for the Bush aide's flat imperialist performativity. So here there is politics, more or less conventionally conceived. But not all interferences look that way. Mol's writing about lower limb atherosclerosis or Moser's on the management of Alzheimer's are much less conventionally political. It all depends, of course, on how you want to define politics. But here's the proposition: in this way of thinking, politics is about interfering to make a difference. And, perhaps I should add, it is about being sufficiently modest to resist the idea that there is a single or explicit mode of ordering the world. It is about accepting, in other words, that ordering is partial, incomplete, always more or less local, more or less implicit, and therefore more or less disconcerting<sup>36</sup>. And then again, it is about recognising that it is a matter of being flexible enough to make differences in different ways in different circumstances. For here is the final problem with constitutionalism. In its stipulative search for generality, it is a prince that does not rule. To be sure, systems of due process, including those that are successful, have effects. They are performative. But they are also messier than the descriptions or instruction manuals that accompany them. Rules, as Wittgenstein taught us, do not determine their application. And as actor-network theory showed us many years ago, the world is messy, multiple, heterogeneous, and constantly escapes the precarious orderings of even the most determined Crusoe.

## References

- Barnes, Barry (1977), Interests and the Growth of Knowledge, London: Routledge and Kegan Paul.
- Bloor, David (1976), Knowledge and Social Imagery, London: Routledge and Kegan Paul.
- Boltanski, Luc, and Laurent Thévenot (1987), Les Économies de la Grandeur, Vol. 32 Cahiers du Centre d'Études de l'Emploi, Paris: Presses Universitaires de France.
- Callon, Michel (1986), 'Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of Saint Briec Bay', pages 196-233 in John Law (ed.), Power, Action and Belief: a new Sociology of Knowledge? Sociological Review Monograph, 32, London: Routledge and Kegan Paul.
- Callon, Michel, and Vololona Rabeharisoa (2003), 'Research "in the wild" and the Shaping of New Social Identities', Technology in Society, 25: (2), 193-204.
- Callon, Michel, and Vololona Rabeharisoa (2008), 'The Growing Engagement of Emergent Concerned Groups in Political and Economic Life: Lessons from the French Association of Neuromuscular Disease Patients ', Science, Technology & Human Values, 33: (2), 230-261.

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<sup>36</sup> On the importance of disconcertment, see Verran (1999).

- Collins, H.M., and Robert Evans (2002), 'The Third Wave of Science Studies: Studies of Expertise and Experience', Social Studies of Science, 32, 235-296.
- Collins, H.M., and Robert Evans (2007), Rethinking Expertise, Chicago: University of Chicago Press.
- Greer, Germaine (2009), 'Unicorns have fascinated artists for centuries: but we've lost sight of their true meaning', The Guardian, Arts Section, 3 August 2009, 22, also available at <http://www.guardian.co.uk/global/2009/aug/02/germaine-greer-unicorns> (last accessed 4th August, 2009).
- Haraway, Donna J. (1989), Primate Visions: Gender, Race and Nature in the World of Modern Science, London: Routledge and Chapman Hall.
- Haraway, Donna J. (1991a), 'A Cyborg Manifesto: Science, Technology and Socialist Feminism in the Late Twentieth Century', pages 149-181 in Donna Haraway (ed.), Simians, Cyborgs and Women: the Reinvention of Nature, London: Free Association Books, also available at <http://216.239.59.104/search?q=cache:FXGOe-wsmCgJ:www.stanford.edu/dept/HPS/Haraway/CyborgManifesto.html+Haraway+cyborg&hl=en&ct=clnk&cd=1&gl=uk&client=firefox-a>.
- Haraway, Donna J. (1991b), 'Situated Knowledges: the Science Question in Feminism and the Privilege of Partial Perspective', pages 183-201 in Donna Haraway (ed.), Simians, Cyborgs and Women: the Reinvention of Nature, London: Free Association Books, also available at <http://www.hsph.harvard.edu/rt21/concepts/HARAWAY.html>.
- Haraway, Donna J. (1997), Modest Witness@Second Millennium.Female Man© Meets Oncomouse™: Feminism and Technoscience, New York and London: Routledge.
- Haraway, Donna J. (2007), When Species Meet, Minneapolis and London: University of Minnesota Press.
- Latour, Bruno (1984), Les Microbes: Geurre et Paix suivi de Irréductions, Paris: Métailié.
- Latour, Bruno (1993), We Have Never Been Modern, Brighton: Harvester Wheatsheaf.
- Latour, Bruno (1998), 'Petite philosophie de l'énonciation', pages 71-94 in P. Basso and L. Corrain (eds), Eloqui de senso. Dialoghi semiotici per Paolo Fabbri, Orizzonti, compiti e dialoghi della semiotica. Saggi per Paolo Fabbri, Milan: Costa and Nolan, also available at <http://www.ensmp.fr/~latour/articles/article/75-ENONCIATION.pdf>.
- Latour, Bruno (2004), Politics of Nature: How to Bring the Sciences into Democracy, Cambridge, Mass. and London: Harvard.
- Latour, Bruno, and Steve Woolgar (1986), Laboratory Life: the Construction of Scientific Facts, Second Edition, Princeton, New Jersey: Princeton University Press.
- Law, John (1994), Organizing Modernity, Oxford: Blackwell.
- Law, John (2004), After Method: Mess in Social Science Research, London: Routledge.
- Lynch, Michael (2006), 'From Ruse to Farce', Social Studies of Science, 36: (6), 819-826.

- Lynch, Michael, and Simon Cole (2005), 'Science and Technology Studies on Trial: Dilemmas of Expertise', Social Studies of Science, 35: (2), 269-311.
- Mol, Annemarie (2002a), The Body Multiple: Ontology in Medical Practice, Durham, N. Ca., and London: Duke University Press.
- Mol, Annemarie (2002b), 'Cutting Surgeons, Walking Patients: Some Complexities Involved in Comparing', pages 218-257 in John Law and Annemarie Mol (eds), Complexity in Science, Technology, and Medicine, Durham, N Ca.: Duke University Press.
- Mol, Annemarie (2008), The Logic of Care: Health and the Problem of Patient Choice, London: Routledge.
- Morris, Steven (2009), 'The great unicorn hunt', The Guardian, 29 July 2009, 13, also available at <http://www.guardian.co.uk/commentisfree/2009/aug/02/obama-birthers-us-presidency> (last accessed 4th August, 2009).
- Moser, Ingunn (2008), 'Making Alzheimer's Disease Matter: Enacting, Interfering and Doing Politics of Nature', Geoforum, 39, 98-110.
- Shapin, Steven, and Simon Schaffer (1985), Leviathan and the Air Pump: Hobbes, Boyle and the Experimental Life, Princeton: Princeton University Press.
- Suskind, Ron (2004), 'Faith, Certainty and the Presidency of George W. Bush', The New York Times Magazine, 17 October 2004, also available at <http://www.nytimes.com/2004/10/17/magazine/17BUSH.html?ex=1255665600&en=890a96189e162076&ei=5090&partner=rssuserland> (last accessed 5th August, 2009).
- Verran, Helen (1999), 'Staying True to the Laughter in Nigerian Classrooms', pages 136-155 in Actor Network and After, Oxford and Keele: Blackwell and the Sociological Review.
- Waterton, Claire, and Brian Wynne (1999), 'Can Focus Groups Access Community Views?' pages 127-143 in Rosaline Barbour and Jenny Kitzinger (eds), Developing Focus Group Research: Politics, Theory and Practice, London: Sage.
- Younge, Gary (2009), 'To engage the birther fantasists is futile; to dismiss them, reckless', The Guardian, 3 August 2009, 23, also available at <http://www.guardian.co.uk/commentisfree/2009/aug/02/obama-birthers-us-presidency> (last accessed 4th August, 2009).