Bees, butterflies, and bacteria: biotechnology and the politics of nonhuman friendship

Nick Bingham
Geography Discipline, Faculty of Social Sciences, The Open University, Walton Hall, Milton Keynes MK7 6AA, England; email: n.bingham@open.ac.uk
Received 25 October 2005; in revised form 26 December 2005

Abstract. The author seeks to decentre some already familiar geographies of biotechnology. By asking, with respect to genetically modified (GM) crops, not ‘what is the new?’, but ‘where is the new?’, the intention is to redirect attention (at least briefly) away from the GM technique or genetically modified object and its supposed properties, to the world to which that technique or object is being added. This in turn allows the question concerning GM to be approached from new directions, for example, via the routes taken into the controversy by three specific organisms. Not fully taken into account in the calculations of the biotechnology industry, the honey bee, the Monarch butterfly, and the bacterium Bacillus thuringiensis have all, in very different ways, made their presence felt as they literally and metaphorically encountered GM. In an attempt to do justice to these marginalised lifeforms, the forms of life of which they are part, and the biopolitical questions which they raise, the works of Jacques Derrida on friendship and animality, Jean-Luc Nancy on being with, and Bruno Latour on making things public, are brought into conversation. It is suggested that together what they offer is a way of thinking ourselves as collectively in the midst of things.

“If there is something, then there are some things, lots of them, whether they be shells or eyebrows, clouds or hammers: several, many, different in number as well as quality. The profusions of nature and the profusions of technology contribute to the same sort of abundance, an abundance that isn’t at an end.
Foam, erase, tooth, canvas, synapse, liquid crystal, tentacle, scale, plank, spume, fingernail, hail, neutron, lymph... and so ever indefinitely on. The time of modernity is followed by the time of things.”
Jean-Luc Nancy (2003, page 318)

1 Introduction: where is biotechnology?
In many senses, this paper is nothing more (nor less) than an attempt to think through the quote above by the philosopher Jean-Luc Nancy. I start with an example of a kind of situation in which (I suggest) we find ourselves too often as social scientists, one in which we forget that “If there is something then there are some things, lots of them.” Next, I bring together and seek to mobilise some resources that help us to take seriously “the profusions of nature and the profusions of technology” Nancy refers to. Third, I consider what Nancy might mean by the phrase “the time of things”.

This journey is animated by some thing in particular. Not one of the things from Nancy’s list (of which more later) but, rather, biotechnology—specifically, genetically modified (GM) crops. This is an area which—responding to external events as well as internal encouragement (for example, Whatmore, 1999)—geography is now beginning to get to grips with. Even as work that both documents and exemplifies this welcome engagement begins to appear [see the introduction to this theme issue by Greenhough and Roe (2006)], however, the question remains of what the distinctive contribution of our discipline might be in this area. What, in other words, might a geographical imagination bring to the study of the new lifeforms and new forms of life that are emerging all around us, and the new biopolitical questions that they bring with them?
Without seeking to offer any definitive, let alone singular, answer to this question, what I try to do in this paper is offer a modest proposal of one contribution that we might make as geographers. And that is to ask, quite simply, ‘where (in the world) is biotechnology?’

What I am attempting to convey with this slightly awkward expression is not that our role should be to produce endless maps of the global distribution of biotechnologies. Rather, I am trying to encourage us to consider the ‘place’ of technology in a slightly expanded sense. Certainly, in part, as a physical and temporal location (new things are used somewhere and not elsewhere, sometimes and not other times). But also as the position in which every new thing finds itself vis à vis all the other existing things of which the world is already full and into the midst of which they must always emerge (see Mol, 1993). To put this another way, what do particular biotechnologies materialise next to, in the neighbourhood of, connected with, and so on and so forth?

The reason for asking this question is that it helps to stop us from fetishising or becoming fixated on the objects, techniques, and processes of our newest scientific ‘revolution’, and forces us instead to look up and around, at least for a moment reminded that there are always other things in the vicinity, lots of them and not just one. Although an apparently obvious point, formalising it might just be an important contribution in the sense that experience has proven time and time again that, with new things in particular, we find it collectively very difficult to see past the potential of the novel innovation itself. Happy, in other words, to ask simply ‘what is (bio)technology?’, and to assume that we can extrapolate its effects from its properties alone.

Although perhaps disappointed, we might expect this kind of line from those boosting products into which a huge investment of time, hard work, and money has been pumped (and of which a quick return is both expected and demanded). After all, it is a story that promises a great deal when you have something to sell, a very powerful story, even if it is underpinned by a very limited spatiotemporal imagination. What I mean by this is that it effectively involves only two spaces—the space of science [the source of radically new things, such as (bio)technology], and the space of society, onto which (bio)technology impacts causing permanent and predictable changes in people's lives—and one kind of time—revolution as marked by new things [Latour (1993); see Bingham (forthcoming) for an expansion of this idea in relation to the genetic modification issue]. In fact, then, this story of technology is a very powerful one because it is underpinned by a very limited spatiotemporal imagination, since it is precisely the refusal to take seriously the ‘challenge of space’ which leads to the lack of recognition (or, perhaps, studied ignorance) of other’s narrative trajectories and thus cements the story of (here, technologically driven) Progress as not just a story but the story of Modernity (Massey, 2005).

As a number of commentators have suggested, it is precisely as the latest manifestation of Progress that biotechnology has been sold (for example, Adam, 2000; Bingham, forthcoming; Brown et al, 2000; Jasanoff, 2005). The proclamations of Monsanto [in their advertising campaign documented in Bingham (2003)] that their GM crops are going to save the world (both by feeding the starving millions, and by protecting an overloaded environment) offer but one example amongst many. But what should be of at least as much concern to us is that (notwithstanding the excellent work just mentioned) we as social scientists are far too often equally guilty of assuming that new technologies fall from the sky into an empty world. Equally guilty, that is to say, of becoming so fascinated by the apparently world-changing potentials of new technologies that we lose our critical faculties and slip into more or less sophisticated versions of technological determinism [see Bingham (1996), Hinchliffe (1996), and Thrift (1996a) for discussions of this issue within geography; and Grint and Woolgar (1995) for an
account of why the prospect of not being able to rely on a technologically determinist explanation of social change continues to prompt so many ‘failures of nerve’]. If it is a story that still promises a great deal when you have something to sell, it also still explains a lot when you have a theory to promote.

In an attempt to put some of the above exhortations into practice, in the remainder of the paper I tell some geographies of biotechnology that do not start with the innovatory things themselves in a limited sense but, instead, out in the world into which they have been and are being introduced. Specifically, prompted by the efforts to make themselves heard of three collectivities which unwittingly and unwillingly became ‘neighbours’ of GM crops, I want to animate the paper with some story—trajectories that were at first simply not taken into account, then were ignored, and finally were actively marginalised. However, what follows is much less a detailed description of the ins and outs of those cases [although I have done some of that elsewhere (Bingham, forthcoming; in preparation)], and more an attempt to gather the kind of conceptual tools that can do the same kind of justice to these other forms of life, these other lifeforms, that is more usually reserved for rather more glamorous versions. More specifically, in the next section I investigate how the figure of the friend might be made relevant to debates about biotechnologies, before then reviewing some recent work on the philosophical geographies of nonhumans. In the final main section and a brief conclusion, I then weave these two strands together in order to explore some of the biopolitical questions of adding things to an already full world.

2 Other forms of life, or ‘can we be friends?’

Beekeepers, organic farmers, and amateur entomologists might not, on the face of it, seem to have much in common. But they do, or so I want to argue, both something specific and something general. Something specific, because particular groups of beekeepers, organic farmers, and amateur entomologists have all found themselves drawn into the ongoing controversy over the introduction of GM crops that has been taking place (albeit in different ways) all over the globe over the past few years.

I am thinking first (in terms of chronology at least) of the organic farming organisations and individual organic farms that were amongst the plaintiffs in a legal case brought in 1997 by Greenpeace US and the US Center for Food Safety against the US Environmental Protection Agency (EPA). The action referred to the EPA’s regulation and approval for planting of so-called ‘Bt’ crops, which are strains of corn, potato, tomato, and cotton that have been engineered to contain a gene sequence from a soil microorganism, *Bacillus thuringiensis* (known as ‘Bt’), such that the plants would express through their leaves a substance toxic to particular crop pests. The basis of the petition was that the EPA had completely failed to consider (and hence broken the law as well as agency regulations) one well-documented and inevitable consequence of their giving the go-ahead for commercialisation: namely, that the target insects of the toxin would, over time, develop resistance to Bt. The problem with this (quite apart from its long-term prospects as a pest-control strategy) is that Bt in a non-GM spray form is the only emergency pest-control option allowed by organic farmers (who of course are partially defined by their nonuse of conventional pesticides). For the protagonists in the case, then, the whole future viability of organic farming was threatened by the agency’s approval of Bt crops. After two years of inaction on the part of the court, a revised motion was brought by Greenpeace in 1999 only to be either dropped or dismissed (depending which side one believes) later in the face of a stalling pretrial ruling by the judge, and Greenpeace’s attention turning to what they felt would be a more fruitful avenue of contestation.
This last involved the second group whose existence and activities have partly prompted my arguments in this paper: namely, the hundreds of peoples all over North America who were members of the citizen science initiatives (such as the Monarch Larva Monitoring Project, Monarch Watch, and Journey North) set up to track and map the remarkable annual migration, from Mexico through the rest of the continent, made by what has been called the USA’s ‘unofficial national insect’—the Monarch butterfly. Suddenly, in 1999, these loose knit organisations too found themselves thrust to the centre of another episode of challenge to GM Bt crops (specifically, corn) after a furore erupted when it was suggested in the journal *Nature* that the toxin expressed by Bt corn could be both lethally and sublethally toxic to Monarch larvae which feed solely on another plant—milkweed—that is found in close proximity to the said corn. What followed was a campaign that brought together many diverse groups (including Greenpeace and many of the aforementioned Monarch enthusiasts) and which was again directed at the EPA’s regulatory regime for biotechnology. This continued for a couple of years until Bt corn varieties were granted new registrations in 2001 after research designed to establish the extent of any risk to the Monarch had indicated to the satisfaction of most of those involved that the threat posed by all but one variety on the market (which was subsequently phased out) was not likely to cause significant mortality in the short term (even though longer term, sublethal effects were not ruled out) (for more detail on this case, see Bingham, forthcoming; Bingham and Blackmore, 2003).

After the organic farmers and the butterfly watchers, at the turn of the century it was the turn of the beekeeping community in the United Kingdom to find themselves protagonists in the troubled infancy of biotechnologically ‘enhanced’ food plants. In 1999 it emerged from research commissioned in connection with ‘farm-scale evaluations’ (FSEs) of GM crops in the British countryside that pollen is routinely carried by bees much further than had previously been thought (up to 4.5 km in one study). This finding was then used by opponents of the FSEs to suggest that the distances between GM and non-GM plantings which had been agreed between the government and the biotechnology companies as being sufficient to guard against cross-contamination between the two types of crops would need to be completely rethought. Then, in 2000, proof of the implications of this study was provided when GM pollen was found first in beehives and then in commercially sold honey. This in turn prompted concern on the part of the Honey Association and beekeeping groups across the country both about their ability to sell their produce in supermarkets which (under public pressure) were marketing their shelves as ‘GM free’, and (although less commonly) about possible effects on the health of the bees themselves. The trials continued without any significant official changes in the regulations, although their results have since cast doubt on the immediate prospects for commercial growing of GM crops in the United Kingdom (for more detail on this case see Bingham, in preparation).

Three forms of life, then, which were evidently easy to ignore from the way in which both the biotechnology companies and the regulatory bodies framed commercial planting (in the US examples) and farm-scale trials (in the UK case). It is perhaps no coincidence that these are groups which have not received much attention in conventional accounts of the social. Not obviously powerful players in the traditional sense, neither are they classically oppressed, disadvantaged, or othered. But perhaps what keeps these forms of life and others like them off the social science radar is that the members of such collectives are significantly defined not by the social bond as usually conceived (that is, interpersonal), but through their arrangement around (in the case of the beekeepers and the amateur entomologists) or at least their significant relationship with (in the case of the organic farmers) particular nonhuman entities (the bees, butterflies, and bacteria). All of which does not bode well for my attempt here to take them seriously.
Luckily, in various diverse literatures, we can now find signs that we are getting better at appreciating the heterogeneous character of the social, and resources for better articulating the same. We are slowly realising, in other words, that there is no reason to think that (in fact, there are compelling reasons not to think that) we have to conceive social life simply in terms of relations between people, but instead can revision it in terms of relations between people and things, recognising that it is always coproduced by what the philosophers Michel Serres and Bruno Latour (1995) call a “double circulation of objects that create social relations and social relations that create objects” (page 201). Such work allows us, amongst other things, to conceptualise ‘forms of life’ not merely as abstract ways of being, but as specific assemblages of humans and nonhumans that are constituted through particular practices of articulating with others.

More specifically, in terms of my specific focus here, I want to suggest that we might usefully think of our beekeepers, organic farmers, and amateur entomologists as what the literary critic Miguel Tamen has recently and provocatively termed—in a book of the same name—‘friends of interpretable objects’. According to Tamen:

“A good way of describing some of the things we do to things would be to say that, all over the world, different groups of people gather around various bits and pieces of the same world, attributing to them intentions, dispositions, and even languages. Some of these activities seem to be, to me at least, a little eccentric (for example, talking to trees or reading tea leaves or interpreting cold fronts), but this may only mean that I am not a member of certain groups. A tree-talker can, by contrast be defined as someone who does not think it is eccentric to talk to trees (and goes on doing so). Some tree-talkers (though perhaps not all), on the other hand, might find it odd that I am a member of a group of people, a true society of friends, who gather around certain bits of stone, wood, or metal (and call them ‘statues’), believing that they can sort of ‘answer back’ their admiring, or otherwise merely descriptive, comments...

Three very general claims (the first two of which are closely related) are implied in what I have just said.... The first claim is that something becomes interpretable, and describable in an intentional way, only in the context of what I have been calling a society of friends...

My second claim is that there are no interpretable objects or intentional objects, only what count as an interpretable object or, better, groups of people for whom certain objects count as interpretable and who, accordingly, deal with certain objects in recognizable ways...

The third claim is that such groups are societies of friends. Despite its title, the book presupposes no special doctrine of friendship, only a few very general metaphysical assumptions” (2001, pages 1–3).

And it is with this last point, and his “few very general metaphysical assumptions” that Tamen’s thesis becomes most helpful in terms of my argument here. For although, as he says, his suggestion appears to be compatible with Aristotle’s gnomic remark that “friendship would seem to hold cities together” (2001, pages 3–4), it would equally seem to fly in the face of the dominant (Western) way of thinking about friendship. As Tamen is well aware, this tradition [beginning with perhaps the most famous of all philosophical discussions of friendship in Books 8 and 9 of the Nichomachean Ethics (written, of course, by the same Aristotle that Tamen cheekily quotes from to bolster his case)] has been to consider friends in terms of reciprocity, equality, and resemblance (see the review in chapter 2 of Lynch, 2005). Friends, in other words, have most often and most influentially been thought of as people like us, as another self. All of which would seem fatally to undermine Tamen’s suggestion that we might consider ourselves...
(or some of us at least) as friends of trees, statues (or as I want to suggest here) bees, butterflies, or bacteria. To which Tamen would assert with some justification that “many things are left undreamt by our philosophies” (1998, page 1) and that what he is interested in is what goes (and has always gone) on in practice, conceptually recognised or not.

What I have found interesting, however, in pursuing this line of thinking in an attempt to explore whether it does help to give some serious purchase on the forms of life I am interested in here, is that increasingly philosophy and philosophers have been dreaming precisely of another sort of friendship. Perhaps the most significant manifestation of this trend has been the book Politics of Friendship (1997) written by the late philosopher Jacques Derrida. At once drawing on and bringing to presence a line of philosophical thinking and thinkers (including Nietzsche, Levinas, and Blanchot) who have attempted to think the friend not as another self but, rather, the other self as friend (see Lynch, 2005, chapter 3 for a review), Derrida asks (as beautifully summarised by Derrida commentator John D Caputo)

“Is it possible, contrary to the intuitions we have accumulated about friendship from Plato to the present, to think of the friend in terms of distance rather than of proximity, in terms of irreducible alterity rather than a community of shared concerns, in terms of strangeness rather than of familiarity? Is it possible to think of friendship as a relation that is without relation, without unity or fusion? Is it possible that the friend is not, as Aristotle said, another self, or the better half of my soul..., but rather as the other, even wholly other? Is there a gift of friendship outside or beyond the economy of equality and reciprocity that we have always demanded of friendship?...To what extent is the main Western canon on friendship itself already disturbed and interrupted from within by an understanding, or at least an intimation, of this other friendship?” (1999, page 184).

According to Derrida, at least, that canon is indeed disrupted, and to a significant extent. It is particularly interesting in this context to read his development of an-other notion of friendship alongside another of the themes with which he became increasingly concerned towards the end of his life—namely, the question of animality. Although I will refer to this strand of work at greater length in the next section, it is tantalising—especially because he never explicitly discusses the two together at length—to read a few typically enigmatic remarks that hint at the importance of a relationship that undoubtedly remains to be fully thought through. “[W]e shall have to ask ourselves, inevitably”, he writes in one piece, “what happens to this fraternity of brothers [that is, friendship conventionally conceptualised as well as the polis more broadly (see section 4)] when an animal enters the scene?” (Derrida, 2002, page 413). Or elsewhere,

“Can the voice of the friend be that of an animal? Is friendship possible for the animal or between animals? Like Aristotle, Heidegger would say: no. Do we have a responsibility towards the living in general? The answer is still ‘no,’ and this may be because the question is formed, asked in such a way that the answer must necessarily be ‘no’ according to the whole canonized or hegemonic discourse of Western metaphysics or religions, including the most original form that this discourse might assume today” (Derrida, 1995, page 278).

Derrida leaves hanging the question of what might happen if that “canonized or hegemonic discourse” was deconstructed slightly (his life’s work of course), but it is clear from these quotes and other intimations that he is interested at the very least in allowing for the possibility that friendship might be a term which we might use to describe a relationship with the radically (nonhuman) other.
In terms of materialising this possibility, we can find a useful hybrid of Tamen’s speculatively empirical and Derrida’s more metaphysical approach to thinking friendship otherwise in the recent work of Donna Haraway (especially Haraway, 2003). Although she uses the character and terminology of the ‘companion’ more than that of ‘friend’, Haraway shares the same project of (re)figuring our ways of relating to ‘significant otherness’ (her term) by queering our inherited notions of social relations. *The Companion Species Manifesto* (Haraway, 2003) is, as Steve Hinchliffe helpfully summarises, “an invocation of the mutually constitutive relations of human beings and canine travelling companions. Their co-evolutions, their shared histories and their ability to remould each other in face to face encounters are all amply illustrated. The imbrications of dog and human are wonderfully told through shared saliva, viruses and DNA, shared evolution of sensory and evolutionary capabilities, and shared pathways in the traversing of continents. Likewise the relationship of breeds to world wars, imperial and colonising movements, to food-, military- and other industrial-complexes are all suggestively played out. And last, but by no means least, the daily interactions of dogs and dogs and dogs and people in their fleshy, sexed, hungry and mortal bodies-in-relation are given their due role in enhancing and degrading lives, depending on the practices and arts of relating” (Hinchliffe, 2006).

And although we might, with Hinchliffe, be slightly wary of generalising too far or too quickly from the specifics of the relationship between a human and a nonhuman with a fairly obvious ethical ‘face’, it is significant that Haraway makes a point of noting that “‘Companion species’ is a bigger and more heterogeneous category than companion animal, [and one which] must include such organic beings as rice, bees, tulips, and intestinal flora, all of whom make life for humans what it is—and vice versa” (2003, page 15). Organic beings, that is, much more like the very other others that are represented by bees, butterflies, and bacteria than the strangely familiar canine.

What Tamen, Derrida, and Haraway together help us to consider, then, is whether friendship might be better characterised not (as has traditionally been the case) by the sorts of entities it links but, rather, by a certain quality of being open to and with others. Although we cannot ‘speak’ with nonhumans in any straightforward way (even if any ‘straightforward’ way of speaking existed), what we can and more importantly do is become articulate with them in various ways. ‘Societies of friends’ collectively exhibit, in other words, both the willingness and the capacity to ‘learn to be affected’ as Latour has referred to the process of how our bodies are ‘“effectuated’, moved, put into motion by other entities, human or nonhuman” (2004a, page 205) [for a rich discussion within geography, see Hinchliffe et al (2005)]. Experts known as ‘noses’ within the perfume industry, for example, are trained using an ‘odour kit’ to be able not simply to differentiate between (say) ‘sweet’ and ‘fetid’ smells, but gradually to become sensitive to much more subtle kinds of variations between fragrances (Latour, 2004b, pages 206–207). In a similar way, our beekeepers must learn to be affected by bees such that, for example, they can approach the hive without causing distress and injury (to either of the parties); our organic farmers must learn to be affected by Bt such that, for example, they can judge under what conditions of pest infestation it is both effective and the only (nonsynthetic) option; and our amateur entomologists must learn to be affected by Monarchs such that they can, for example, with knowledge of the butterfly’s navigational cues, have some chance of following their travels from the ground. What we are left with after all this (I hope) looks less like inconsequential and asocial activities and more like ‘communities of practice’ (Wenger, 1998) which are not only crucial to the constitution and reconstitution of the world but might also just—as we shall see in section 4—offer much-needed different versions of being-with-others.
3 Other lifeforms, or can we speak of remarkable things?

During the episodes of the GM controversy described at the beginning of section 2, we were offered, in all sorts of spaces from courtrooms and council houses to message boards and mass demonstrations, not only descriptions of particular forms of life and how they might be disrupted by their newly planted uninvited neighbours, but also accounts of the lifeforms affected from those who knew them best. If only temporarily, then, those of us ignorant of bees, butterflies, and bacteria, and the world-making roles they play, were given a ‘sense of things’ by those who had taken the time and made the effort to learn to be affected by them. Just for a moment, bit by bit, one by one, a little of what has been lost in our too often rather empty social theories was added back (if only because it may have been under threat). All of a sudden, those who bothered to listen became all too aware that we had collectively forgotten that the fact that there is something means that there are some things—lots of them.

But even if we collectively remembered these fragmentary nonhuman biographies, would that be enough to make a difference? Will simply enumerating these other narratives—trajectories, making a list, doing a survey, mapping the field, stop it happening again, prevent other things from not being taken into account, not counting? No, or so I want to suggest. At least not alone. As literary critic Bill Brown puts it in the introduction to a special issue of Critical Inquiry on ‘Things’ a few years ago:

“These days, you can read books on the pencil, on the zipper, the toilet, the banana, the chair, the potato, the bowler hat. These days, history unabashedly begins with things and with the senses by which we apprehend them... Can’t we learn from this materialism instead of taking the trouble to trouble it?” (2001, pages 2–3).

“Fat chance”, Brown answers himself (page 3) as he makes a case for the necessity of what he calls ‘thing theory’ to help make sense of all these stories of stuff. And rightly so, I would argue, for the same reason that Ignaas Devisch gives when he asks why Nancy goes to such conceptual trouble simply to be able to produce lists, “enumerations of the world” (Devisch, 2002, page 385) such as the one in the quotation at the beginning of this paper: “Foam, erase, tooth, canvas, synapse, liquid crystal, tentacle, scale, plank, spume, fingernail, hail, neutron, lymph... and so ever indefinitely on” (Nancy, 2003, page 318). And that answer is that for Nancy

“There is the world, the whole world, and nothing but the world, and that makes the sense of the naked existence in which we coexist, in which we are. One can wonder why Nancy takes difficult detours into the most complex and abstract philosophical works in the history of philosophy, if it is all supposed to be about what is evident. The reason is clear: in order to clear our thinking of these evidences, a deconstructive reading of philosophical history is necessary. Notions like community, sense, or world still refer to a metaphysical order that ignores the evidences that require attention in today’s world. The idea that we could leave the history of our thought behind and start thinking from a tabula rasa about contemporary political practices, instead of getting involved in long-forgotten abstract philosophical works, is, moreover, an idea that belongs to the metaphysical history of our day, and does not at all leave that history behind” (Devisch, 2002, page 392).

Our way of collectively dealing with things, then, is completely shot through by and loaded with all kinds of metaphysical assumptions, assumptions that, like it or not, we cannot simply jettison but instead must think and work through if we are going to find another way forward. Most significantly, here, we would need to deal with a philosophical inheritance according to which other things than the human (even other living things) are always defined by their lack in comparison with ‘us’. Lack of language, lack of consciousness, lack of reason, lack of authenticity; the hegemonic (if never homogeneous) treatment of the nonhuman has always been more about shoring up the
human—convincing ourselves that we are masters of all things—than about granting the nonhuman any positive existence. Happily, this situation is beginning to change (if slowly), and philosophies that are capable of thinking things in other than merely our own terms (if never completely on theirs of course) are beginning to look not only necessary but possible (again). It is by rather inadequately, but hopefully suggestively sketching a couple of the resources through which we might take other lifeforms seriously that I want to spend the remainder of this section.

We might start with the already mentioned late (but not only late) work of Derrida on what he called ‘the question of animality’. As he described it, this was not merely “one question amongst others” but, rather, one that he had “long considered to be decisive (as one says), in itself and for its strategic value; and that’s because, while it is difficult and enigmatic in itself, it also represents the limit upon which all the great questions are asked” (Derrida and Roudinesco, 2004, pages 62–63). Or, as Matthew Calarco has put it in commenting on Derrida’s writing on this subject, what the question of animality raises is “nothing less than a contestation of the primacy of human beings with respect to the ethical” (2004, page 175).

For Derrida, even those philosophers such as Heidegger and Levinas, who have done perhaps more than anyone to displace a certain self-contained and self-confident human subject from the centre of (Western) philosophic discourse (by insisting that we are always already open to alterity in various senses), do not manage to challenge the established place of nonhuman life. As Calarco summarises:

“For Heidegger, only (human) Dasein ek-ists, is exposed, thrown (in)to the world; the animal, poor in world and without language, merely lives, enshrouded in a disinhibiting ring that renders it incapable of both eksiistence and subjectivity. The dominant tendency in post-Heideggerian thought (as seen for example in Levinas’ discourse) has been to accept this opposition between (human) Dasein and the animal” (Calarco, 2004, page 188).

From Derrida’s point of view, the philosophies of Heidegger and Levinas “remain profound humanisms to the extent that they do not sacrifice sacrifice. The subject (in Levinas’ sense) and the Dasein are ‘men’ in a world where sacrifice is possible and where it is not forbidden to make an attempt on the life in general, but only on human life, on the neighbour’s life, on the other’s life as Dasein” (Derrida, 1995, pages 279–280, emphasis in original). What does it mean, to translate this into more prosaic terms, that we seem to be willing potentially to sacrifice (or at least put at risk) lifeforms like bees, butterflies, and bacteria for the march of human progress?

If there is a way out of this historical impasse, it is not to be found for Derrida in attributing some of ‘our’ qualities to ‘them’. It “would not be a matter of ‘giving speech back’ to animals but perhaps of accrediting to a thinking, however fabulous and chimerical it might be, that thinks the absence of the name and of the word otherwise, as something other than a privation” (Derrida, 2002, page 416). Although a certain tradition of binary thought is still “prevalent”, it has always been best “resisted” by the simple fact “that there is a multiplicity of living beings, a multiplicity of animals, some of which do not fall within what this grand discourse on the Animal claims to attribute to them or recognize in them” (Derrida and Roudinesco, 2004, page 63). If I understand him correctly, it is in this multiplicity and in thinking this multiplicity—all the living things that we do violence to be calling the Animal in the singular [“in spite of the infinite space that separates the lizard from the dog, the protozoon from the dolphin, the shark from the lamb, the parrot from the chimpanzee, the camel from the eagle, the squirrel from the tiger or the elephant from the cat, the ant from the silkworm or the hedgehog from the echidna” (Derrida, 2002, page 402)]—that we might find the basis of “mutations in our experience of animality and in our social bond with
other animals’” (Derrida and Roudinesco, 2004, page 7). In terms of my interest here in taking other lifeforms seriously, perhaps the task is not to seek to compare the dance language of bees (see Crist, 2004) with human language, the ‘intelligence’ (Bingham, 2006; Deming, 1997) of Monarch butterflies with human intelligence, or even the efficacy of biopesticides like *Bacillus thuringiensis* with synthetic human-made versions, but rather (or at least in addition) to find a way of thinking about these ‘remarkable things’ (McGregor, 2002) that grants them positive ontological difference in their own right.

And on this note we can usefully return to the work of Nancy. For what Nancy offers (amongst many other things) is precisely a vision of a world constituted by such difference in multiplicity that we are seeking here. Like Derrida—a great influence—Nancy works both with and through Heidegger in order to take Heidegger’s ‘first philosophy’ of Dasein and reformulate it such that primacy is given not to ‘being’ but, rather, to ‘being-with’ (or *Mitsein*). Or, as he puts it, “Being cannot be anything but being-with-one-another, circulating in the *with* and as the *with* of this singularly plural coexistence” (Nancy, 2000, page 3, emphasis in the original). What distinguishes Nancy’s project from other attempts to derive a philosophy from our originary openness to alterity (that of Levinas, for example) is, first, that it is concerned with what is always a multitude of others rather than a singular other (Devisch, 2000; Nancy, 2000, page 11); and second, that it is radically nonanthropocentric: “it is not clear that the community of singularities is limited to ‘man’ and excludes, for example, the ‘animal’” (Nancy, 1991, page 28; see also Calarco, 2004, page 198, note 3; Nancy, 2000, page 17). In his version of the world, the others who we are always already with are many in number, and not all human in kind:

“The things, the very first stone, the sheet of paper, the galaxies, the wind, my telescreen, my big right toe, the nerve inside it that hurts, the prostheses, the artefacts planted under my skin, put inside, exposed, all things expose themselves and expose us, between themselves and thus, together and singular” (Nancy, quoted by Devisch, 2002, page 390).

The world as theorised here, then, does not begin and end with ‘us’ but, as Devisch explains, originates and is (re)created all over the place:

“That there is something means that the world comes into being. The ‘origin’ of the world takes place always and everywhere, time and time again, in every singular act of no matter which being, always momentous and local. World is thus always a multitude of worlds, an endless ‘passage’ of phenomena. World is always structured as Being-to, as a relation to the biggest diversity of the world. This plural singular origin of the world is, according to Nancy, what makes our co-existence. It is the naked structure of our *we are* in a world that is no more than world” (Devisch, 2002, page 388, emphasis in the original).

The unique transnational migration of the Monarch butterfly, the endless round trips of the honey bee, the slow, slow action of a soil microorganism, the biotechnologically protected growth of a GM crop even, all these lifeform–narrative–trajectory–things (Massey, 2005) are the “polymorphous spacings” (Nancy, 2003, page 316) by which the world “appears each time according to a decidedly local turn [of events]. Its unity, its uniqueness, and its totality consist in a combination of this reticulated multiplicity, which produces no result” (Nancy, 2000, page 9). Here we have moved from a situation in which nonhumans were little more than lack, to an ‘ontology of abundance’ according to which the world is full (and is fullness)—“nothing other than the touch of all things” (Nancy, 2003, page 316). [For other proponents of this encouraging trend in thinking see, for example, Bennett on ‘thing power’ (2001; 2004), Harman on ‘the carnival of things’ (2005), Ross on ‘plenitude’ (1995), and Connolly on a ‘pluralistic cosmos’ (2005)]. Finally, perhaps, we are in a position to start asking whether the time of modernity is indeed followed by the time of things.
4 Another (cosmo)politics of friendship?

In the previous two sections, I sought to make a little conceptual room in our considerations of the social for, on the one hand, other sorts of collectivities (non-human-centred forms of life) and, on the other, other sorts of things (nonhuman lifeforms) than those which usually dominate such accounts. This is, I would argue, important work in its own right, a matter of acknowledgment in a strong sense. Perhaps what is ultimately most important about these moves, however, at least in terms of my concerns here, is that this ‘making room’ serves to open up somewhat the space of the political. After all, both of the tendencies which I have attempted to problematise—an anthropocentric version of friendship and the exclusion of nonhumans—are fundamental to the understandings and practices of democracy as we have inherited it.

Right from the start, a certain version of friendship (that between two brothers) has played an organising role in the definition of politics. In the canonical texts of Aristotle in particular, friendship was seen as forming the junction between the question of interpersonal justice and the proper constitution of ‘the city’ (Thomson, 2005, page 12). The city—polis thus became envisioned “as an arena of like-minded men related in citizenship by the bonds of friendship” (Lynch, 2002, page 100). Over time, the notion of politics in general as the business of friends, and democracy in particular as a political association modelled on the friendship of brothers (that is, friends as another self rather than the other self as friend), has taken hold in more (Liberty, Equality, Fraternity) or less [see Derrida’s analysis in his Politics of Friendship (1997)] obvious ways.

At the same time, our political situation has become defined by what it keeps out as much as who it allows in. As Michel Callon (2003) has described it, we currently live in a ‘delegative democracy’ based on a double divide. The first division acts to separate “ordinary citizens from their elective representatives” (the former delegating “their will and decision-making powers” to the latter). The second, meanwhile, “creates a virtually insurmountable boundary between specialists and lay people” (the latter relying on the former to “produce and evaluate the knowledge on which decisions can be based”). Significantly, this dual mechanism serves not only to produce yawning chasms between different classes of person, “it also precludes an overlap between political issues and questions related to science and technology” (Callon, 2003, page 33).

One does not have to look much further than the nearest newspaper to realise that this organisation of the political arena—what Latour (1993) has termed the ‘Modern Constitution’—is increasingly inadequate to our current situation. So-called ‘hot’ sociotechnical controversies (Callon 1998, page 260) are serving—at the very least—to expose the limitations of a human-centred politics and, perhaps more than that, disrupt it—possibly terminally. To put this another way, the fullness of the world—the some things, lots of them—which I have attempted, after Nancy, to articulate in this paper is becoming ever less possible to ignore. With each new example of a scientific or technological project ‘overflowing’ its initial framing (the GM controversy being but one example), the extent to which our collective ‘matters of concern’ are very material indeed is ever more obvious.

Hardly surprising, then, that some have called for the invention of an ‘object-orientated democracy’ (Latour, 2005, page 16) that is more capable than the current political setup of giving thing-issues the attention that they both demand and deserve. Central to the proper functioning of any such new way of dealing with things would be an explicit bringing together of precisely what the double delegation has kept apart, namely the “two different meanings of the word representation that have been kept separate in theory although they have always mixed in practice” (Latour, 2005, page 16). As Latour expands:
“The first one, so well known in schools of law and political science, designates the way to gather the legitimate people around some issue. In this case representation is said to be faithful if the right procedures have been followed” (2005, page 16).

The second meaning, on the other hand, “well known in science and technology, presents or rather represents what is the object of concern to the eyes and ears of those who have assembled around it. In this case, a representation is good if the matters at hand have been accurately portrayed” (2005, page 16). For Latour, assigning the first of these tasks to ‘elected representatives’ and the second to ‘experts’ (and thus to politics and science, as conventionally conceived) simply makes no sense:

“Realism implies that the same degree of attention be given to the two aspects of what it is to represent an issue. The first question draws a sort of place, sometimes a circle, which might be called an assembly, a gathering, a meeting, a council; the second brings into this newly created locus a topic, a concern, an issue, a topos. But the two have to be taken together: Who is to be concerned; What is to be considered?” (2005, page 16, emphasis in the original).

It is important to understand here that what Latour is proposing is not in any straightforward sense either the expansion of human rights to animals or other biological entities, or an extension of the social contract such that nonhumans are somehow included (however useful and necessary such tactics might be in particular contexts). Whereas the first of these strategies risks reducing the very significant othernesses we are interested in learning to live with to a version of the same (see Derrida and Roudinesco, 2004; Hinchcliffe, 2006; Wolfe, 2003), the kinds of being-with or coexistence that Nancy (or, in another context, Serres, 1994) are concerned with are prior to any voluntarist being-in-community on the classic Rousseau model. As the philosopher Simon Glendinning (2000) has noted, calling for a “supplementing or rounding out” of the polis so as to include what has traditionally been excluded (such as women, slaves, or animals) misses the point that the power and success of ‘modern’ culture-empires did not occur despite these exclusions but because of their presupposition. Dealing responsibly with this “troubling history” [and geography we might add (see Massey, 2005)] cannot be “simply a matter of giving votes to women, freedom to slaves, rights to great apes, and so on—however urgent and urgently necessary such movements are and have been”, but instead requires radically rethinking the model of ‘man’ as ‘citizen’ on which modernity has been built (Glendinning, 2000, page 28).

What is needed is thus “a way of breaking out onto altogether new ground for ‘man’—and thereby also for other living things which will no longer need to be conceived as separated from ‘man’ by an abyss” (Glendinning, 2000, page 28). One way in which such an exploration might be achieved, Glendinning suggests, is by putting to new work elements in the existing conceptual field which have already resisted the dominant order of that field” (page 28, emphasis in original). Rather than the model citizen “acting in the theatre of ‘his own’ civic environment”; we might instead look for inspiration

“towards what classically speaking would be considered ‘improper identities’ that are characterised not by their desire for a polis with ‘proper’ city limits... but by their openness to regenerations and transformations that, in each case, cannot be fully anticipated, governed or regulated in the present. Marked by their openness to what does not fit in. Perhaps this can even be seen as the distinctive mark of the zoon politikon”” (Glendinning, 2000, page 28).

In the light of the provocations of Latour and Glendinning concerning what a renewed and rematerialised democracy might involve, it might be that it is the other-friend that I have been fleshing out that would today act as a better figure from which to take our lead, rather than the same old brother-friend on whom the original polis
was modelled. After all, friends of interpretable objects are more and more often becoming what Callon has termed ‘concerned groups’:

“lay people... concerned by the modalities of scientific and technical development and its orientation and management... increasingly convey problems whose treatment requires research” (2003, page 40).

Once again, the way that beekeepers in the United Kingdom, and both butterfly enthusiasts and organic farmers in the USA all either carried out or commissioned their own studies on the implications of GM crops for bees, Monarch butterflies, and Bt as a biopesticide, respectively, offers only three amongst many examples of this trend towards ‘research in the wild’ identified by Callon (2003). As such, these other-friends have, on the one hand, experience of ‘making things public’ (Latour and Weibel, 2005) in both of Latour’s senses and, on the other, offer an example of an improper identity from within the exiting conceptual field that has resisted the dominant order in Glendinning’s sense. In other words, they combine the ability to represent a particular form of life with an openness to significant otherness.

In a fuller and getting fuller world in which coexistence is a condition not a choice (Nancy, 2000), and the task is the progressive composition of a common world (Latour, 2004b), it is just such a combination that must be central to any vision of a city—polis in which all kinds of things may coexist and thrive. The reason why figures like Latour’s ‘parliament of things’ (1993; 2004b) or Derrida’s ‘democracy to come’ (1997) are so challenging (if taken seriously) is that they recognise the necessity of supplementing in practice the ethical imperative of unconditional hospitality to the strange(r) or the new arrival with the political responsibility of questioning, assessing, and ultimately perhaps only admitting certain of those candidates (new people or new things) to join the collective (or, at least, only admitting them under certain conditions). Even as we establish ‘how many are we?’, that is to say, we must also—whether through a set of procedures or an endless troubling of this aporia—always be asking ‘can we live together?’ (Latour, 2004a).

What is more, we must do this in the full knowledge and explicit recognition that, once we have a situation in which a multiplicity of friends are also friends of multiplicity, there cannot be one ‘good’ answer to this question. Whereas, for Aristotle (and not just for Aristotle), there could be one true description of eudaimonia (‘happiness’, ‘the good life’) that might be an outcome of civic friendship if properly practised, in a (cosmo)polis which is not all us, there will be many different, probably competing, and possibly conflicting, versions of what it means to ‘flourish’ [to use another translation of eudaimonia reclaimed and put to work by the feminist philosopher Chris Cuomo (1998; see also Hinchliffe, 2006)]. The challenge of a time of things, then, is to find a space and/or a set of procedures in and through which these different accounts and accounts of difference might be worked through in an agonistic [as opposed to antagonistic (see Mouffe, 2005)] manner. Claims made on behalf of things would be put first at risk then to the test [in Stengers’s (2000) sense], before a decision would have to be made about whether (for example) something that might help a biotechnology company flourish might interfere with the flourishing of the North American Monarch population (and if so, which ‘good’ is to be given preference). In terms of new things, that would mean ‘no innovation without representation’ (Latour, 1993), treating (for example) GM crops not as inevitable additions but rather as ‘propositions’ (Latour, 2004a). Everything, in fact, that did not happen in the three cases I started with, but to which they might (hopefully) nonetheless have helped to point a way towards. Happily, there are some signs at least that such hope is not based entirely on wishful thinking. What Sheila Jasanoff calls the ‘civic epistemology’ (2005, chapter 10) of biotechnology, is beginning to be influenced just a little by some of the ‘technologies of
humility’ (Jasanoff, 2003) that have emerged out of the ‘hybrid fora’ (Callon, 2003) in which friends of significant otherness have been debating GM and other issues (see also Bingham, forthcoming; Davies, 2006; Winickoff et al, 2005). Whether this will result in any lasting shift in the cosmopolitical landscape it is too early to tell.

5 Conclusion: collectively in the midst of things

Thanks to a happy confluence of influences, including nonrepresentational theory (for example, Thrift, 1996b), performance studies (for example, Dewsbury, 2003), the practice turn (for example, Harrison, 2002), and relational thinking (for example, Massey, 2005, Whatmore, 2002), we are now becoming pretty good within geography at accounting for ourselves and others as what I have called elsewhere ‘bodies in the midst of things’ (Bingham et al, 2001). That is to say, we have become able to acknowledge and articulate that as individuals we are always (already) at once surrounded by objects of various kinds, participants in communities of practice of various kinds, and immersed in activity of various kinds. In this paper I have started to think through what it might mean that we are collectively in the midst of things too. Sociotechnical messes like the GM controversy demonstrate this condition very well whilst also suggesting that many of the insights from the earlier work remain relevant. We still need to learn to resist the easy shortcut (whether political or intellectual) of tidying up the mess, or asserting that it is ‘merely’ an empirical by-product that tells us nothing about how the world ‘really’ works. Retreating, in other words, to the pure and simple space where Nature—the realm of the nonhuman—should be left to Science, and Society—the realm of the human—should be left to Politics. Instead, we need to remain faithful to our earlier wager that it is from the muddle of the middle that we have everything to learn about living, and hope that this approach will also yield insight when we are considering issues of living together too.

That, at least, is what I have tried to do in this paper, striving to remain faithful and even become adequate, if only in a very limited and conceptual sense, to the particular episodes of contestation that prompted me to write this paper in the first place. My guess, inspired by the examples of Latour and Stengers amongst others, is that it might be precisely by paying attention to the kinds of things and practices that populate these messes that we might derive a ‘cosmopolitics’ that is able to think (and perform) Nature and Society at the same time. Specifically, this has meant, on the one hand, finding philosophical resources capable of figuring things left out of the calculations of the biotechnology industry as part of a full and abundant social world that deserves to be taken into account and, on the other, thinking through the idea that the friendship shown towards these same things by certain groups might represent a way of being with others that has wider resonance and implications.

Of course, this approach offers no answers—only more questions. Amongst the many that I have not fully addressed here is that of how to make sense of the apparent spatial paradox that giving things room to flourish might require getting close to them. Another is that of whether it is productive, or even sensible, to try and link—as I have tried to do here partly through the mediator of Jean Luc Nancy—two ostensibly very different ways of conceptualising our relationship to otherness (the one a more Deleuze–Serres–Latour approach in which the alterity resides in the heterogeneity of associations; and the other a more Levinas–Derrida–Caputo take in which the encounter with the radically Other is the ethical moment par excellence). All I can hope for now is that such questions, and the way that I have raised them, might be better than the ones I started with and/or make some small contribution to an ‘enlivened’ geography [the term is from Spencer and Whatmore (2001); see also Whatmore (2002)].
Acknowledgements. The arguments in this paper have been significantly shaped and improved by ongoing conversations with Steve Hinchliffe and Doreen Massey in the Department of Geography at the Open University, as well as more generally provoked by the discussions of the Animots reading group in the same department. Many thanks are also due to three referees whose insightful readings both revealed and helped to remedy a number of blind spots in the paper.

References


Bingham N, in preparation, “Challenging geographies”


Connolly W, 2005 Pluralism (Duke University Press, Durham, NC)

Crist E, 2004, “Can an insect speak? The case of the honeybee dance language” Social Studies of Science 34 7 – 43

Cuomo C, 1998 Feminism and Ecological Communities (Routledge, London)


Deming A, 1997 The Monarchs: A Poem Sequence (Louisiana State University Press, Baton Rouge, LA)


Derrida J, 2002, “The animal that therefore I am (more to follow)” Critical Inquiry 28(2) 369 – 418


Devisch I, 2000, “A trembling voice in the desert: Jean-Luc Nancy’s rethinking of the space of the political” Cultural Values 4 239 – 256


Glendinning S, 2000, “From animal life to city life” Angelaki 5 19 – 30


Bees, butterflies, and bacteria 497
Haraway D, 2003 The Companion Species Manifesto (Prickly Paradigm Press, Chicago, IL)
Harman G, 2005 Guerrilla Metaphysics: Phenomenology and the Carpentry of Things (Open Court Press, Chicago, IL)
Hinchliffe S, 1996, “Technology, power, and space—the means and ends of geographies of technology” Environment and Planning D: Society and Space 14 659 – 682
Hinchliffe S, 2006, “Translating companion—on rights, fragility and space”, mimeo, Faculty of Social Sciences, Open University, Milton Keynes
Latour B, 1993 We Have Never Been Modern (Harvester Wheatsheaf, Hemel Hempstead, Herts)
Latour B, 2004a, “How to talk about the body? The normative dimension of science studies” Body and Society 10 205 – 229
Lynch S, 2005 Philosophy and Friendship (Edinburgh University Press, Edinburgh)
McGregor J, 2002 If Nobody Speaks of Remarkable Things (Bloomsbury, London)
Massey D, 2005 For Space (Sage, London)
Mouffe C, 2005 On the Political (Routledge, London)
Nancy J-L, 1991 An Inoperative Community (University of Minnesota Press, Minneapolis, MN)
Nancy J-L, 2003 A Finite Thinking (Stanford University Press, Stanford, CA)
Serres M, 1994 The Natural Contract (University of Michigan Press, Ann Arbor, MI)
Stengers I, 2000 The Invention of Modern Science (University of Minnesota Press, Minneapolis, MN)
Tamen M, 1998 “Kinds of persons, kinds of rights, kinds of bodies” Cardozo Studies in Law and Literature 10(1) 1 – 32
Tamen M, 2001 Friends of Interpretable Objects (Harvard University Press, Cambridge, MA)
Thomson A, 2005 Deconstruction and Democracy (Continuum, London)
Thrift N, 1996a, “New urban eras and old technological fears: reconfiguring the goodwill of electronic things” Urban Studies 33 1463 – 1493
Thrift N, 1996b Spatial Formations (Sage, London)
Wenger E, 1998 Communities of Practice (Cambridge University Press, Cambridge)
Whatmore S, 1999 “Editorial: Geography’s place in the life science era” Transactions of the Institute of British Geographers 24 259 – 260
Whatmore S, 2002 Hybrid Geographies: Natures, Culture, Spaces (Sage, London)
Wolfe C, 2003 Zoontologies: The Question of the Animal (University of Minnesota Press, Minneapolis, MN)
Conditions of use. This article may be downloaded from the E&P website for personal research by members of subscribing organisations. This PDF may not be placed on any website (or other online distribution system) without permission of the publisher.