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Climate change multiple

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Introduction

Concerns about the climate are not new to the twentieth and twenty-first century. Historians have highlighted the ways in which populations have been governed to live with, work in and manage different kinds of climates (e.g. see Fleming and Jankovic 2011). Yet the concept of 'global climate change' has become undoubtedly powerful in the latter half of the twentieth century and has been adopted in diverse calls for societal intervention in the name of defending sound science, a stable climate and enhancing sustainability. The contributions in this book illustrate the diverse mechanisms, practices, discourses and rationalities of policy interventions to govern for and through the global climate. While there is a substantive policy literature exploring these topics, the contributions here provide innovative and conceptually convincing demonstrations of the value of Foucauldian governmentality approaches (on their own or in co-ordination with other conceptual frames) to understanding climate governance.

Authors in this volume explore climate governance in diverse ways, for example as processes of rationalisation and calculation (chapter 10), global visions (chapter 4 and chapter 12), post-political neoliberal rationality (chapter 3) and new experiments,

whether with urban form (chapter 2) or the everyday use of energy (chapter 7). They raise important questions such as how climates, forests and energy meters are conceptualized, modelled and categorized for the purposes of climate governance. They also reflect the ways that subjects are constructed through these processes and the various effects of these new modes of governance and self-governance. Climate governance is thus about governing climate, governing with and through climate, governing sets of practices that are tied to climate change through temporally and spatially specific associations of actors, and governing populations as climate citizens or subjects. There are thus many forms of climate governance being discussed, which raises an important question. Do these represent different facets of *a* political form or different kinds of interventions and experimentation in practice?

This question is taken as the challenge to be explored in my contribution. Blok (chapter 2) suggests that there are 'multiple climatic problems' and presents a series of problematizations, interdependent areas in which a problem becomes delineated and made potentially resolvable, but which do not encompass nor accrue to a form of totalizing climate change governance. Given this, however, the question is how climate change becomes tied to these sets of practices and whether what emerges is thus climate change multiple. Here I draw from Mol's (2002) work on the body in medical practice, which suggests that the variety of practices regarding atherosclerosis re-makes the body and disease not as a singular entity neither as pluralist bodies. Mol (2002) rather suggests 'the body multiple' – more than one, less than many. She delinks the question of what to do from the question of what is real, and that this politics-of-what must 'assume that the end points of trials, the goals sought for, are

political in character' (Mol 2002: 175). Politics opens up questions rather than solving them through facts or argument. The question is where is the political here?

While governmentality perspectives may be aligned methodologically with actor-network theory, as most clearly shown in Whitehead (2009), there is still a question about the theorization of the political therein. As Blok (2011) points out, some of the performativity approaches within science and technology studies have failed to articulate a suitable theory of the political that is actually amenable with actor-network concepts. Is there a role for governmentality here or would this, as Blok suggests, then undermine precisely what is distinctive about actor-network approaches? Remaining agnostic on this question for the present time, here I want to explore this question through the different ways in which climate change is enacted in the governance practices identified in previous chapters. In particular, there are three primary forms of climate change enrolled in these practices, namely ones that focus on security, individualization and economics. These overlap in some ways and diverge in other ways, and the ways these practices rub up against each other are particularly informative. To illustrate that these practices re-order climates and populations, the following sections provide necessarily short examples of these three diverse enactments of climate change, before moving on to a broader reflection on the question of climate governance in the conclusion.

Climate change security

Climate change has been enacted as a security risk through assemblages of security officials, risk models and the legitimating power of rhetoric of threat that has been re-invigorated since 9-11. For all this seeming authority, however, as Oels (chapter 11)

suggests, there has been rather less in the way of dramatic interventions than might be expected from climate change as exceptional state, and rather more adaptive, market-oriented governance that enables a de-politicized resilience mantra to become established. It is nonetheless clear that security practices shape the object of climate change in a particular way that stresses potential non-linearity and a requirement for continual vigilance and monitoring of unsettled peoples and ecosystems. Monitoring movement, as Fall (chapter 9) suggests, becomes a key organizing principle for these emerging forms of climate security governance.

Governments are not only anticipating potential worst-case scenarios but also actively imagining a phantasmagoria that becomes real (de Goede and Randalls 2009). Examples include the collections of pictures of future scenarios of climate change (London under floods, or in tropical conditions, or completely iced over), the classic disaster film imaginary of immediate climatic cataclysm (most well known in *The Day After Tomorrow*), and the prospect of geoengineering to deliberately alter the global climate. In the case of biodiversity changes, the lists of (invasive) species works both to confirm particular species as threats as well as to legitimate managerial interventions to confine or restrict the spread of these invasive species in the name of enhancing biosecurity. As de Goede (2012) illustrates in the case of terrorist finance these lists then become performative. Being added to a list literally turns that person or organization into a risk and defines and restricts the future circulations of finance. In climate change governance, particular places and populations become risky: the North African and Middle Eastern water-deprived areas that might foster Islamic radicalism or the Bangladeshi migrants fleeing rising waters into neighbouring India. Climate threats become defined through scientific modelling – indeed it is interesting

that in climate-health research, while South East Asian countries are predicted to have deaths from malnutrition the European Union is not, primarily because of an assumption that the European Union will supply food to all its member states whereas the South East Asian countries will be less co-operative with each other (Randalls 2011).

Climate change is not a neutral scientific script that lends authority to policy-makers to establish governance interventions vis-à-vis a global climate polity. Rather climate change is always already a co-produced science-political hybrid and as such is enacted in particular ways by different assemblages of practices. The good outcome is a world secured from climate change (impacts), but that does not necessarily mean interventions to prevent climate change. Subjects that are compensated through insurance mechanisms for climate change impacts are an equally important outcome of securitization (Stripple 2012). Thus climate change security is both multiple and constitutes multiple subjects (Stripple 2012).

Individualization

For other groups, climate change is primarily an issue of responsibility and consumption, with citizens needing to take the lead to encourage carbon-friendly resourcing of required goods and services. This is implemented through a variety of engagements with consumers from carbon calculators (chapter 6), to energy smart meters (chapter 7) and through to interventions to 'nudge' people to make 'correct' decisions (chapter 5). This approach is characterized by an individualization of responsibility, an attitude of self-governance and a concerned subject that never knows if they have done enough to stave off climate disaster.

Hargreaves (chapter 7) provides a particularly in-depth exploration of the use of smart meters in households. Here one learns that rather than technologies simply delivering emissions reductions, they play more complicated and nuanced roles in lifestyles. As Mol (2008: 58) writes: 'technologies do not subject themselves to what we wish them to do, but interfere with who we are.' Smart meters enact a particular kind of climate-concerned subject, which enacts climate change as a phenomenon that is to be managed through reductions in carbon usage and guilt. Climate change here is less the dramatic security personae and more a day-to-day practice, an attention to the ways in which consumers in richer countries (at least) manage their lives in the expectation that changes can and will be made to deliver a less carbon-intensive lifestyle (Paterson and Stripple 2010). If marketized in the form of personal carbon trading, where each individual would have a carbon allowance and then buy/sell their credits as required, then this equally rewards those that can competently economically manage carbon. The marketplace resolves individual choices by putting a market price on carbon and letting consumers decide how they wish to spend their portion of the atmospheric pie.

Again, this is not a neutral threat of climate change and one of many options to resolve the problem. In this case, climate change is modelled and counted by establishing 'carbon equivalency' as the commodity that is to be managed to save the planet. Climate change is enacted as a problem of carbon management, legitimating interventions into better governing the use of carbon in people's lives. The good outcome here is the rational, carbon consumer, who will enable the reduction of carbon-dioxide emissions to prevent climate change.

Economic agenda

Similar to the individualization focus, the practice of using economic instruments, especially markets, as the primary governance mechanism for climate change narrows the scope of action to 'carbon dioxide equivalent', valuing and pricing this new commodity. Here, though, rather than individuals being entrusted to govern themselves, the focus is much more on the producers of emissions rather than the consumers. Of necessity, the introduction of carbon markets requires strong state involvement. This is no laissez-faire approach, but rather one that is characterized by scientific authorities and legislators working together to measure, monitor and map carbon production and absorption for the purposes of establishing mechanisms of trade that, according to their stated objectives, enable the overall reduction in emissions. Good examples of this are the REDD+ schemes for rewarding the prevention of destruction to forests as well as the creation of new forests (chapter 10 and chapter 3) and feed-in tariffs to enable renewable energy development (chapter 8).

The case of forestry governance through carbon markets illustrates the considerable expansion of a new economic sector, carbon, which relies on carbon market professionals as sources of authority and expertise, and establishes financial circuits as ideal modes of governance. As Lovell (chapter 10) notes, this connects a whole set of scientific expertise in remote sensing and carbon science with the informational needs of a market. Climate change is here enacted as a financial problematic, defining a new commodity and set of trading relationships to stabilize the object, climate change, as something amenable and solvable through market relations. Rather than

presenting an irruptive threat to the market, climate change comes to be governed through the market. One can associate such practices with discourses such as cost-effectiveness, externalities, optimal policies, and a belief in the market as primary information processor.

For Methmann, Rothe and Stephan (chapter 3), these micro-practices of carbon governance through commoditization, are allied to broader power relations that re-inscribe forms of neoliberal governmentality that, like the security network described earlier, depoliticizes debates about climate change. At the same time, however, this market-based approach is but one enactment of climate change circulating at present, albeit a particularly dominating one if the focus is on international policy. This economic agenda has at its core a stated goal of achieving emissions reductions at the lowest possible cost, but its goals seem to be as much about achieving some kind of economic rationality that incorporates and resolves external critique, as it is about managing climate change. While even the most dedicated carbon market enthusiasts agree that changes are needed if markets are to achieve emissions reductions, there still remains a faith that given the right conditions markets will eventually deliver on this promise. Paterson and Stripple (2012) deploy the term 'virtuous carbon' to emphasize the ways in which virtuality and morality are entwined in carbon markets such that the moral goodness of carbon trading to 'save the planet' outweighs specific critiques of market failures. If climate change represented such an imminent threat (as the security network might suggest), then carbon markets hardly appear an ideal solution in terms of time-scale.

Conclusions

The usefulness of the concepts from governmentality analyses for understanding contemporary climate governance has been established in previous chapters, but it is clear that different authors are interpreting and reading these interventions in different ways. Do these micro-practices of governance totalize into a neoliberal governmentality or are there just too many differences to allow for hegemony? Blok (chapter 2) suggests that rather than a global polity there is a meshwork of assemblies-in-the-making. I would concur with this conclusion, but it is nonetheless important to stress that these assemblies always re-make things and the way they are re-made is not neutral. Death (chapter 4), like Blok, would critique a governmentality approach that adopts a global 'programmer's view', but nevertheless retains the value of charting particular analytical frames that are observed in climate governance. Some interventions share very strong commonalities with themes and discourses that appear rather similar to those developed in the neoliberal thought collective as outlined by Mirowski (2009) e.g. the redefinition rather than the removal of the state, the market as the natural and most advanced information processor and solution to any perceived market problems, and the recoding of freedom as autonomous self-governance. At the same time, there is no singular neoliberal narrative on climate change: promoting scepticism and carbon markets is not exactly a consistent position. So to call something neoliberal should not necessarily be to appeal to a structural determinant that defines the analysis, but rather to call attention to specific practices that bear remarkable similarities to stated neoliberal thinkers' philosophies.

Each of the three sets of practices or assemblages identified earlier in this chapter can and do share some neoliberal tropes, most evidently in the carbon commodity

interventions and perhaps less so in the security network, notwithstanding the power this has for geoengineering. Fundamentally, however, these practices do not seem to be different solutions to the same problem – climate change – but rather function as different ways of thinking, writing, doing, practicing and enacting climate change. In other words, climate change is not a singular entity that is then made governable in different ways; rather climate change is inherently multiply constituted through different assemblages of people, organizations, ecologies and much more. To demonstrate this more empirically, the good outcome for the market-oriented strategies of a cost-effective climate change is not necessarily consistent with the need to secure populations and ecologies from climatic harm. Likewise geoengineering interventions to secure the planet seem to demobilize the need and legitimacy of interventions in everyday lives and practices to reduce emissions. These goals and objectives are not simply commensurable with each other. Yet they are held together in tension, or with frictions, by the ways they conflict materially and discursively with each other. As such, solving climate change cannot just be about reducing carbon emissions.

The good outcomes of climate policies therefore are different and may be conflictual, even within the same policy intervention. In forests around the world, for example, the goal of reducing carbon emissions through REDD+ schemes or in mitigating pollution through carbon offsets creates significant new economic incentives to plant trees (chapter 10 and chapter 3). Inasmuch as this might be a rational solution to reducing carbon equivalent concentrations in the atmosphere; and it might be ecologically good if one considers that more trees may enhance biodiversity; and it might be socially good if local populations are provided with necessary means to

manage the trees; there are serious criticisms. Monocultures may not enhance biodiversity. Contracts with local populations may privatize land in ways that function to exclude previous users of lands from damaging controlled carbon sinks (the national park scenario in conservation). Carbon offsets may simply function to enable people to continue with their lifestyles paying a small charge to repair the damage, which might not ever be realized in measurable emission reductions. Each climate assemblage, therefore, portrays certain goods that are sought for, while obscuring others that are considered negative, while in different assemblages the goods and bads might be reversed. What do we make of this in terms of governmentality (some questions) and policy (some responses)?

First in terms of academic literatures, it asks researchers to consider how emerging issues are enacted as part of new forms of governance mechanisms and prompts us to question why some seem to become dominant and others much less visible. So an important question is: how are goods enrolled within particular networks as the central concern while other goods are marginalized? It is hard to critique particular governmental interventions as enforcing post-political frames when it is so difficult to construct a viable alternative, especially when any alternative (socialism maybe?) can be caricatured as having its own set of sought-for goods that are not democratically agreed upon. On the other hand, actor-network theorists appear more amenable to contemporary governance interests in showing how things work, for example, in financial markets. What, then, are the politics of our critiques? A second important question for governmentality and actor-network scholars is how to deal with similarities and uniqueness across different fields. The literature on climate governmentality has emerged alongside environmental literatures on forestry and

biodiversity, also exploring similar themes of calculation, self-governance, exclusion/inclusion, and marketization. As such it seems incongruous to think that climate interventions are unique. How is it that assemblies-in-the-making (chapter 2) formulate and derive ideas and legitimation from other assemblies-in-the-making? Why do certain forms of governance persist from issue-to-issue, or good sought-to-good sought, while others are challenged and may fail?

Second in terms of policy, this multiplicity opens up new questions and challenges in decision-making. There can be no simple way of 'communicating' climate change to engender particular forms of climate actions, as there is no singular climate change that crosses diverse sets of climate associations in practice. This focus forces us to consider climate policies as being multiple interventions that have as their goal different kinds of goods to be achieved that are not mere choices for us to decide between: shall we take the economic good or the security good? It is not that simple. As Mol (2002: 184) puts it 'Presenting the *body multiple* [climate change multiple] as the reality we live with is not a solution to a problem, but a way of changing a host of intellectual reflexes.' The classical conception of solving climate change through emissions reduction is opened up to a broader political problematic that considers the good outcome to be achieved. Even within this frame, the coalescing of political focus on preventing a global mean average temperature increase of 2°C above pre-industrial temperatures has struggled at times to legitimate this goal as well as prove how it is even deliverable in emission changes. It is a fixation on a statistical outcome rather than considering a multiplicity of goods: quality of life; quality of ecosystems; types of interventions; and political questions about what kinds of freedoms we want. The good life to be lived needs to be more directly questioned in these interventions

appreciating the reasons ‘we disagree about climate change’ (Hulme 2009). Climate change multiple requires openness, continual intervention, continual questioning and potential resistance. This is a qualitatively different debate to figuring out a global political solution to best solve climate change singular.

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