



Living with Worms: on the Earthly Politics of Togetherness

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## Summary

We live in a time of ecological concerns. From climate change, to widespread pollution and more insidious worries with food production, health, and the planet, calls to rethink our relationship with 'nature' are heard in the most unexpected places. In the social sciences, these calls have taken the shape of an interest with the 'politics of nature', meaning the political aspect of nature and of the definitions of what counts as nature. Climategate has brought to the fore – much more evidently, but also in less nuanced ways than did the infamous Science Wars that opposed social sciences and natural sciences since the 80s – the complicated relation between establishing matters of fact and the political implications of these facts. Indeed, the strong divide between nature and politics that modern science has established since its inception has been increasingly called into question in recent years. While this often comes with a dangerous disregard for the work of scientists, the answer to this challenge cannot be found in entrenching extreme (op)positions. What is needed is an honest reflection on the relationship between nature and politics and the role science plays in it. But how to do this, when also the ways to assess and study science rely on some of the same basic (Western) assumptions?

In an attempt to offer a reflection on the politics of nature, this thesis engages with scientific practices. These, I hold, can offer a provisional and never settled way to attempt to consider science without forgetting to question one's own categories. What can one learn about this conundrum from carefully attending to what scientists do? The attention to practices from which this move takes off is predicated on the need to critically scrutinize, with a strong measure of criticism, those very categories Western sciences use to judge their own value, like objectivity and logical coherence. Anthropology and (feminist) science studies taught us that categories like these are not universal, but indeed come with their own specific (and never politically neutral) histories and socialities. Simultaneously, all too often this critical position has meant – especially for anthropologists – a lack of attention to the actual practices and concerns of scientists, beyond the grand discourse of scientific epistemology. This is no longer possible, if one is to take seriously the environmental problems the planet is faced with. Attending to practices, then, offers a corrective to both these extremes (the dismissal of science as 'Western' and flawed, and the dismissal of attempts to reconsider the official epistemology of Science in light of the actual practices and histories of sciences), trying to find onto-epistemologies in the making, as they emerge from the concrete practices of scientists. So, there is more than just scientific knowledge to learn from carefully attending to what scientists do.

In fact, it is in scientific practices, I argue in the course of the thesis, that one can find possible reconfigurations of the nature, politics and science. For this reason this thesis explores and follows the research practices of various scientists. In doing this, a number of other questions that have recently kept anthropologists and other social scientists busy also begin to surface: how to account for those situations and entities that do not fit a neat divide between subjects and objects? How to overcome the ideological assumptions of human exceptionalism? How to attend to the multiple and noncoherent heterogeneities one is often faced with? All these questions, in my fieldwork, come together in the one concern that frames the whole thesis: **how to live together** with the planet? To begin to address this question, I gather together the different articles that compose this text and that I published and wrote over the course of my doctorate. The materials the articles deal with are quite different, and so are the conversations and arguments they engage in; still, they all share a similar interest in *earthworms*.

These invertebrates, and the practices and collectives they live with and emerge from, offer an interesting shift in the way we think about togetherness, as I argue throughout the thesis. While the attention to practices allows me to keep the tension between nature and politics always open, by challenging received notions of what science is with more concrete accounts of how science is done, the earthworms allow me to not forget the importance of the content of science. In fact, this is another, crucial aspect of the rearticulation of politics and nature I attempt in this text. If a critical reconsideration of what is known about science is instrumental in my endeavor, also an attention for the material-semiotic encounters scientists ground their facts in is essential. It is in these encounters, in which scientists are as important as their earthworms, that scientific facts are made and, more importantly for this text, that alternative politics of nature are brought into existence. An attention to the earthworms, then, is not only a figuration for the dirty materialities of science in action, but it is an essential aspect of the togetherness I am interested in. And in doing so, while never unmediated, or isolated, the worms and their worlds – scientists and experimental apparatuses included – push a different understanding of togetherness at the center stage of this research: the one elicited by *eating*. Grounding the politics of nature in eating may seem counterintuitive: if various ways of imagining and doing togetherness exist, it is also true that some of them are more hegemonic than others in leading Western traditions, and eating is certainly not among them. The team I worked with during my doctorate, the *Eating Body in Western Theory and Practice* team, focuses on eating as a marginalized repertoire in the West and its theorizations and practices. Working together on this effort, it is important for my project to notice that in ecology eating enjoys a crucial role, and so it does in the ecologically entangled lives of earthworms: for this reason attending to the work of scientists interested in earthworms reveals some of the possibilities opened up by thinking togetherness through eating.

In this thesis, then, answering to the call to rethink the politics of nature, I explore the possibilities, practices and theories shaped by and shaping a togetherness grounded in eating – understood here in a broad sense, including decomposing, digesting, ingesting, transfer and transformation of energy and matter, metabolism, but also the growing of food. Rather than just being a counterfactual reflection on Western science and practice, this thesis is grounded in situated cases and their specific questions. But while its engagement with experimental practices has been by necessity limited, the writing of the thesis constitutes a further platform in which to experiment with different forms of togetherness. For this reason, the text presented here challenges some of the conventions of its genre. This is particular evident in the way I take up the collage-like nature of an article-based thesis to stress the kind of noncoherent (or not-fully-coherent) togetherness that this exercise in juxtaposition offers. While this thesis, like the earthly togetherness of eating that it argues for, is not a closure and does not, as such, offer any final solution to the concern with the politics of nature, what it offers is a reframing of the questions and practices that articulate nature, politics and science together. This rearticulation, like the worms, promises to turbate and disturb the structure of the conversations around the conundrum of the politics of nature, hopefully in a generative way, opening the space for more alternatives and differences to proliferate.