

**Social nature:**

**Collapsing dichotomies without unraveling the fabric of things**

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**Primary books reviewed**

*Nature*, by Noel Castree (Key Ideas in Geography series, London and New York: Routledge, 2005)

*Reassembling the Social: An Introduction to Actor-Network-Theory*, by Bruno Latour (New York: Oxford University Press, 2005).

*After Method: Mess in Social Science Research*, by John Law (New York: Routledge, 2004)

The world might be imagined as a web held together through oppositions, force fields of tension overlaid against each other into a delicate network that holds everything we know in the elastic space stretched between the opposable thumbs of multiple, invisible hands. By the world, I don't necessarily mean atoms, photons and light rays, proteins and cells, bodies, structures, systems, planets. I mean the world as an experienced, interpreted, storied, affective domain of relations, identifications, and involvements. In that world, or worlds (since they are differently experienced and conceived by every world-bearing being), meanings and values are conferred through

distinction and differentiation: this is better than that, we do this and they do that, once upon a time things were this way but now they're much worse (or better), and so on. We organize the patterns and regularities we see, over time, into categories such as darkness and light, earth and sky, cold and warm, raw and cooked, male and female, and then stitch these categories into bundles: dark-earth-female versus light-sky-male, or variations along these lines. These categories become the ways we make sense of our experience, which as always is imbued with feeling, desire, sensations experienced collectively and individually.

So it is with the categories *nature* and *culture*, or *nature* and *society*. Or *wilderness* and *civilization*, by which are generally meant something like *nature* at its utmost and *society* at its best (or worst). The terms change over time and under the influence of social, political, and scientific developments (as Raymond Williams and other historians of ideas have shown), and they don't necessarily translate between cultural milieus. If structuralist anthropology showed that each society configures its own overlaid sets of binaries by which to organize its conceptual world, post-structuralists, in their turn, have demonstrated that any such binaries are subject to the ravages of time and space, their meanings slipping and sliding from the grips of their users, and that they are always co-implicated with power, desire, and other such forces.

But conceptual dichotomies have proven not only useful but probably essential to the task of making sense of the world and of maintaining it in place – of upholding traditions, providing ethical standards, propping up sociopolitical regimes, and so on. Ideas of “nature” have been especially significant in this, and for that reason especially contestable. In *What is Nature?* British philosopher Kate Soper (1996) called the two sides to this debate the “nature-endorsing” and the “nature-skeptical”: the first believes that there *is* a nature and that we (scientists, or environmentalists, or someone) need to understand it better, protect and defend it, and speak on its behalf; the second prefers to think of nature as an idea and social construct that is used in all manner of ways, and urges us to think critically about those uses.

Noel Castree's book *Nature* starts from the premise that both these perspectives need to be understood better, and that of all the scholarly disciplines that emerged out of the nineteenth century Euro-American reconfiguration of intellectual thought, geography is arguably the one that has been best poised to do that and, in the process, to contribute to a sensible understanding of the relations between humans and the nonhuman world. *Nature* is the first volume to be

published in Routledge's Key Ideas in Geography series (volumes on *Home, Landscape, and The City* have followed), and much of the book insightfully assesses the ways in which geographers have struggled, and largely failed, to develop a comprehensive science of this relationship. Instead, the field has become marked by an "ontological schism" between physical geographers, who study the physical world and whose efforts have often aimed toward developing a science of the spatial without recognizing the complexity of the humans in its midst, and human geographers, who study the spatial dimensions of human society but rarely analyze the relationship between humans and the remainder of nature. Within its overall scope of surveying geographers' ideas and understandings of nature, the book provides an overview of debates over nature and its social construction, realism and relativism, and of the history by which this nineteenth century discipline grew into a highly specialized and bifurcated field. Castree makes evident how it was that, in the 1960s and early 1970s when environmental problems were taking center stage elsewhere, geographers "missed" an "opportunity" for their field to provide intellectual leadership in the emerging environmental debates. While physical geographers were too preoccupied with establishing themselves as "spatial scientists" and human geographers were busy making themselves better social scientists, only a marginal subgroup of environmental geographers took it as their mandate to study the human-environment relationship.

Castree's detailed exploration of geographers' ideas of nature is useful in itself, especially for scholars unfamiliar with the debates that have characterized the field over recent decades. The main innovation of the book, however, comes in its final chapter when Castree provides a brief field guide to those developments which, since the 1990s, have contributed to what he sees as a "third way" between the two parties to the schism: a "post-natural" way of thinking that challenges the society-nature dualism in favor of some form of relational ontology. Castree identifies four main strands to this emerging alternative: non-representational or performativity theory (which he identifies most closely with the work of geographer Nigel Thrift), actor-network theory (about which more below), something he calls "new dialectics" (best represented by David Harvey), and "new ecology" (represented by some of the aforementioned environmental geographers, and especially by Karl Zimmerer). This list is clearly not intended to be exhaustive; some names mentioned, such as Sarah Whatmore, do not quite fit any of the four categories, while other important scholars plying the same fields, such as Doreen Massey, are barely mentioned. Furthermore, although Castree suggests that "ideas of

chaos and complexity could, in principle, form a unifying ontology for the discipline of the whole,” the list he provides clearly favors the human over the physical side of the discipline – which raises the interesting, but largely unaddressed, question of why physical geographers seem less interested in bringing humans back into their picture in non-dualistic ways. Fortunately, Castree’s previous writings, including *Social Nature* (2001) and *Remaking Reality: Nature at the Millenium* (1998), both co-edited with Bruce Braun, and a series of bibliographic essays written for *Progress in Human Geography* (Castree 2002, 2003, 2004), provide plenty of evidence that this third way of socio-natural thinking is increasingly influential within the field.

### **From society to association**

One of the prime catalysts for this “post-natural” or “socio-natural” turn has been the conversation that has simmered and, at times, boiled within the field of science and technology studies (or science, technology, and society, in both cases acronymed as “STS”). At the center of these debates has been the school of thought known as “actor-network theory” or ANT (the second of Castree’s strands of post-naturalism). ANT is most commonly identified with the names Bruno Latour, Michel Callon, and John Law, but regularly features a much larger circle of co-travelers including Annemarie Mol, Vicky Singleton, Nick Lee, Susan Leigh Star, Mike Michael, Wiebe Bijker, and others. An array of closer or more distant relatives get mentioned in the books under review here: these include Donna Haraway, Isabelle Stengers, Michel Serres, the more materially inclined poststructuralists such as Gilles Deleuze and Michel Foucault, and ostensible predecessors or influences such as Gabriel Tarde, Gaston Bachelard, and Harold Garfinkel.

Actor-network theory has been stated and restated, developed and refined over many conversations and exchanges; its terminology has evolved, and its name – sometimes hyphenated or even doubly-hyphenated (as in the title of Latour’s book) and sometimes not – has been threatened with replacement even by the central players themselves, for instance, with “sociology of translation,” “actant-rhizome ontology,” “material semiotics,” “event-network theory,” and other compound neologisms. In *Reassembling the Social*, which serves as the most recent attempt to elucidate ANT by its best-known proponent, Latour seems to settle for the term “sociology of associations,” which he contrasts with the “sociology of the social.” The difference

between the two is that the latter studies something we, or sociologists at least, understand to be “the social”, a kind of substance or force that is distinct from other substances, such as the economic, the political, the cultural, the ethical, the religious (even if each of these has social dimensions). The nature of the social, Latour argues, is normally preassumed, even if there are competing ways of configuring it, for instance, as consisting of individual agents, persons, organizations, crowds, classes, roles, states, structures, social networks, invisible hands, unconscious drives, discursive fields, selfish genes, or other such building blocks. Latour wants instead to begin sociology from a starting point that assumes nothing about the nature of society, or of groups, actions, individuals, facts, or structures. Several of the latter topics are given their own chapters, with the six chapters making up Part I, “How to Deploy Controversies about the Social World,” primarily focusing on undoing the “sociology of the social” by placing uncertainties (about groups, action, objects, etc.) at the center of investigation, while those making up Part II, “How to Render Associations Traceable Again,” provide a set of “moves” toward the “sociology of associations” Latour is proposing in its place. ANT’s methodological preference is to begin from the messy “middle of things”, the shifting, unstable terrain where collective processes and structures are always in process of being configured and reconfigured, identified, translated, and contested. This is why ANT favors starting with controversies and “matters of concern” – like the ozone hole, AIDS, or the many other examples that proliferate in ANT writings – rather than mere “matters of fact”.

In ANT’s relational, processual, and performative approach to the world, the definition of groups (such as nations, cultures, and organizations), scale (as in differences between the local and the global), and human interiority or subjectivity, among other things, are all seen as emergent achievements rather than pre-given structural features of the world. The sociology of associations is thus anti-essentialist and, one might say, atheist or at least agnostic about the essence of the social or of the human. Regarding human interiority, for instance, Latour writes, “Cognitive abilities do not reside in ‘you’ but are distributed throughout the formatted setting” (211). Human beings are not some radically distinct species of creation, for once and for all set apart from the rest of the world. Rather, we are actors, like other actors, that become “subjectified” or “individualized” in specific ways by gaining competencies that allow us to function within certain networks. Latour uses the internet metaphor of the “plug-in” to describe the “discreet *pellets*” that compose, in successive layers, certain forms of competence in actors

that make it possible to negotiate specific situations (207, italics his). We are composed through a heterogeneous array of bodily gestures and expressions, signs and habits, official and legal documents, and so on. Unlike baboons, who exert tremendous effort to maintain complex social networks using mainly bodies, interactions, and landscapes, humans do the same thing through complicated “folds” of mediators, delegates and translators – objects, signs, vehicles, tools, inscriptive devices, technological systems, and so on.

As might be becoming clear, then, and contrary to some of Latour’s exhortations in the first part of the book, ANT *does* propose an essence to the social: that essence is association, or associativity, the social as constituted by associations-in-flux, processes of group enrollment and network building. And ANT is primarily interested in following actors (active pieces within a given form of associative network-building) to see how the network is being built, how it is contested by rival networks, and how the process stabilizes or unravels over time. But, crucially, the network is a collective that is not merely social: technologies, organisms, bodies, though they may not be social in a traditional sense can all serve as the “glue” or the connecting links of networks. ANT’s ontological presupposition then is a world that is processual and enactive. Neither individual agents nor systems such as capitalism, the state, an ecosystem, and so on, are considered real except and insofar as they are enacted in practice. What interests actor-network theorists is discovering how that enactment takes place and, crucially, what the links are in the chain and how they are maintained, oiled and soiled, activated and destabilized. Some of these links may be mere “intermediaries”, transporting meaning without transforming the objects being connected by them, but Latour prefers to think of most of them as “mediators” – “vehicles, tools, instruments, and materials” which “transform, translate, distort, and modify the meaning or the elements they are supposed to carry” (35, 39).

ANT’s call to focus on the mediators, the things that “gather and assemble the collective” (240), resonates with the move in religious and cultural studies toward studying the materiality and embodiment of religious and cultural activities, seeing religion as practice, for instance, and to an intensified focus on visibility, iconography, movement and bodily comportment, and the like. These are precisely the kinds of things focused on in Latour and Peter Weibel’s lavishly illustrated 700-page anthology that accompanied the 2002 art exhibition *Iconoclash: Beyond the Image Wars in Science, Religion, and Art* (Latour and Weibel 2002). They have applied the same sensibility more recently to the political realm, in the sense of a broad rethinking of what

constitutes the “body politic,” in another weighty tome, the 1000-plus page *Making Things Public: Atmospheres of Democracy* (Latour and Weibel 2005), which includes writing by over a hundred philosophers, historians, social scientists, natural scientists, and artists, including such luminaries as Donna Haraway, Richard Rorty, Chantal Mouffe, and Homi Bhabha. The agenda, as outlined not only by Latour’s provocative introductory essays to these tomes but by many of his collaborators, is to create an expansive “cosmopolitical” dialogue that would reassemble the segmented platforms constituting the architectural edifice of the modern world, a world in which politics is supposed to manage people, science to describe nature, art to celebrate individual expression, the economy to describe the circulation of goods, and religion is relegated to a closet of personal beliefs. In his earlier *We Have Never Been Modern* (1991), Latour had described this division of labor and of representation, especially the division between those who speak for nature (scientists) and those who speak for humans (social scientists, humanists, et al.), as the “Modern Constitution.” The point of the book’s title was that the separation demanded a mutual “purification” of these domains but that this was never accomplished in practice, where the mixing of elements (i.e., those that belonged to the domain of nature and those that belonged to the domain of society) not only was allowed to occur but in fact intensified. ANT attempts to give us some tools by which we can more carefully pay attention to the practices by which such hybrid networks are assembled, so as to better judge which of them are workable and which are not.

While the mixture of theory and example offered in this book is welcome, much of *Reassembling the Social* is repetitive of what Latour has previously argued elsewhere (Latour 1993, 1991, 2004) and the writing is weighed down by unnecessarily polemical distractions, such as a several-page discursus summarizing, updating, and unfortunately too often reiterating old arguments about the “Bath controversy” (a famous debate in STS between Latour/Callon and Henry Collins and Steven Yearley) and the even more notorious “Science Wars”. An “Interlude” entitled “On the difficulty of being an ANT” reiterates, in rather overdrawn fashion, some of his basic points in the form of a student-meets-professor story that tries hard to be humorous, but provides little illumination to those who may already be somewhat befuddled. Latour acknowledges past misunderstandings in a roundabout way, for instance, by noting that the use of the word “construction” in his anthropological work in science laboratories played into the wrong hands: sociologists greeted it as arguing or demonstrating that science is also a “social

construction”, while scientists decried this suggestion. Latour now reiterates that what he had meant was not that scientific facts are *socially* constructed, but that they are constructed, yes, that is, fabricated into powerful, stable “facts” in and through the links and translations – between techniques, equipment, charts and tools, laboratories, physical objects, humans, and institutions – that make them possible. This anthropology of science was not a “deconstruction” of scientific facts but an empirical attempt to account for their sturdiness. That this basic mistake in interpreting Latour *et al.* ’s work persists in some circles is a testament to the power of the very problem Latour has been describing, the nature-society boundary and the intellectual division of labor it has given rise to.

Another useful clarification in the book concerns the terms “network” and “actor-network.” Where the first is often fetishized as a kind of shape of things that make up the world, and the second is commonly taken to represent encounters between an individual thing that acts and a more diffuse thing or system that receives or distributes or serves as the backdrop for that action, Latour argues that the point behind these terms is simply to *distribute* agency and render the source of action uncertain at the outset: “Action is borrowed, distributed, suggested, influenced, dominated, betrayed, translated” (46). There are, in a sense, no actors nor networks, but only actor-networks, “collectives” assembled together in the particular ways that this occurs. They are necessarily “hybrid” not in the sense that they transgress some pre-given order separating the natural from the social, but in the sense that any such order must be enacted through “purifying” work on a hybridity that is always there to begin with. So any work, even the seemingly descriptive labor of scientists, *produces* reality and should be questioned in terms of the reality it produces.

### **From mess to assemblage**

Like Latour, John Law also proposes beginning with messy complexities. Yet *After Method: Mess in Social Science Research* hardly mentions actor-network theory, though Law has been one of the leading systematizers and chroniclers of ANT and the book presents an impressive synthesis of methodological ideas from the ANT milieu. Law begins from the premise that the world is a “generative flux of forces and relations that work to produce particular realities” (7) and that these realities don’t necessarily cohere or commensurate with



each other. Following work in STS and in poststructuralist critical theory, Law assumes that the methods used by scientists and social scientists do not merely result in innocent and neutral observations of the world. Rather, they coproduce that world in the process of making knowledge. The world “out there” – that is, the knowable “facts” which are described by our forms of knowledge-production – and the world “in here” – the statements and descriptions which appear to derive from those facts – are crafted into existence together. As he puts it in one of the book’s recurring metaphors, “in-hereness” and “out-thereness” mutually shape each other. Law does not deny that there are things that pre-exist our knowledge of them; but he is not willing to grant that *all* of our knowledge is *merely* description of what is, and that what *is* is independent of our methods of knowing, anterior to them, composed of definite forms or relations, and part of a reality that is “shared, common, the *same everywhere*” (24-25, italics his). Over the course of seven chapters, he develops an argument for an alternative view according to which the world is at least partially produced in and through the methods by which we come to know it, and the objects making up that world are more “fractal” than singular, partly known but partly unknown and perhaps even unknowable. To all of this he gives the label “method assemblage,” where “method” overflows its usual definition to include “tacit knowledge, computer software, language skills, management capacities, transport and communication systems, salary scales, flows of finance, the priorities of funding bodies, and overtly political and economic agendas (41) , and where “assemblage” is taken from Deleuze and Guattari to mean a process of “recursive self-assembling” in which “the elements put together [...] are constructed at least in part as they are entangled together” (42).

The worlds so crafted – and the differential ways of coming to know them, that is, the “insides” which describe those “outsides” – have “outsides” that consist not only of what is indicated by the “insides,” but also of those things that are missing from them or even actively suppressed by them. It is here that Law, with help from his sometime collaborator Annemarie Mol, makes a significant advance within “after-ANT” theorizing. One of the persistent questions that had dogged ANT in its earlier years was what some critics perceived as its political quietude arising from a relentless focus on the network-builders at the expense of those left out of the networks being examined. Latour had all along argued that ANT is inherently political because it questions the ways politics and the social have been formulated, and because it performs this questioning into its own writing (which failed to convince his detractors on the left). In

*Reassembling the Social*, Latour introduces the metaphor of “plasma” to refer to those features of the world that are *outside* the networks being described in any actor-network account. The plasma is the “not yet” – “that which is not yet formatted, not yet measured, not yet socialized, not yet engaged in metrological chains, and not yet covered, surveyed, mobilized, or subjectified” (244). He suggests that this notion of plasma offers the promise of “a reserve army whose size is [...] ‘astronomically bigger’ than what it has to fight” (253), and, by implication, that by highlighting the links in the chains of the powerful, the powerless can better understand which chains can be broken, where, and how. The notion remains vague in Latour’s writing, but Law develops it into a more substantive and workable conception by focusing not on single network enactments but on multiple, sometimes converging and sometimes diverging, enactments, each of which produces somewhat different “outsides” or “absences” from out of the “reality-possibilities” making up its “hinterland” (34).

This argument is carefully developed through a series of richly informative case studies, including Latour and Woolgar’s ethnography of the Salk Laboratory, philosopher Annemarie Mol’s onto-ethnographic study of atherosclerosis, Law’s and Vicky Singleton’s study of alcoholic liver disease in the north of England, Mol’s and Marianne de Laet’s study of the Zimbabwean bush pump, a government report on the 1999 Ladbroke Grove train collision, an ethnography of the Daresbury scientific research laboratory, a Quaker worship meeting, Shapin and Schaffer’s historical study of Robert Boyle and the Royal Society, and episodic asides on Albertian visual perspective, the sociology of Robert Merton, Foucault’s and Kuhn’s conceptions of scientific revolution and epistemic change, and other topics. The main point can best be made by summarizing one of Law’s examples. Drawing on postcolonial STS scholar Helen Verran’s work on Aboriginal Australian knowledge systems, Law presents geologists’ and Aboriginals’ accounts of the creation of Uluru (Ayers Rock) not only as two different narratives, but as two very different kinds of method assemblage, producing very different “in-heres,” “out-theres,” and “Othered” absences. The first posits “nature” as the “unique author of a single account” (123) and “enacts a reality that is independent, prior, singular, and definite” (131), a reality that is made known through geology but that precedes geology and is not at all altered by it. The character of this reality *as enacted*, including by the scientific work that makes it possible, is effaced. In Aboriginal method assemblage, on the other hand, “everything takes effort, continuing effort. There is endless and necessary preoccupation with process. [...] Everything has

to be re-done and re-enacted”, including through the place-specific storytelling and ritual that perpetuates it and keeps it in motion (132). Aboriginal method assemblage generates a plethora of actors who do not appear in scientific method assemblage, including ancestral beings, animals, shape shifters, rocks and streams, words and songs, ceremonies and dances. It is, furthermore, more “capable of enacting an ontological multiplicity” because “everything is relatively specific, relatively ‘local’, enacted at particular places on particular occasions” and involving specific groups of people (137-8). Law’s point is not that Aboriginal method assemblage is better or more complete than that of scientists, just that they enact different realities and, crucially, that in a complex world filled with ontological difference, the only kind of “ontological politics” we should settle for is one that acknowledges both the enactive nature and the inherent incompleteness of each.

In the end, both Latour and Law argue on behalf of an ontological politics, or “cosmopolitics” as Isabelle Stengers (1997) has termed it, that takes methods or modes of knowledge-making to be never innocent and purely technical; they are, rather, always active and political, in the sense that they raise questions about how the world of associations – the society of humans and other entities – is to be organized. Taken together, these volumes represent an ongoing epistemological enterprise that is well worth following and that, as Castree and others have shown, is actively engaging and being engaged with in productive ways across a range of fields. That said, while *Reassembling the Social* provides a useful reiteration (and recalibration) of actor-network theory, Law’s *After Method* is the more satisfying text, if only because its carefully, and less disjointedly, developed argument is supported by such rich case study material. Both can be criticized for creating the appearance of advancement through mere innovation in terminology, and both leave large questions in their wake (such as how do we adjudicate between differently enacted realities?). The real promise of ANT, or post-ANT if you prefer, is found in the way it has begun to reframe conversations on politics, art, science, religion, and nature – something more evident, if not always coherently, in the two exhibition volumes co-edited by Latour and Weibel (2002, 2005). A reader of this journal might be most interested in the increasing role that religion and “ontological difference” are featuring in this literature, as seen in the concluding chapters of *After Method* and in several recent pieces by Latour (1999a, 2002, 2005). We can hope that this interest will result in a more direct engagement with these topics in the future.

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