

Reassembling Activism, Activating Assemblages: An Introduction

Israel Rodríguez-Giralt (Universitat Oberta de Catalunya)

Isaac Marrero-Guillamón (Goldsmiths, University of London)

Denise Milstein (Columbia University)

Abstract: This introductory essay conceptually situates the dialogue between Actor-Network Theory (ANT) and Social Movement Studies that this special issue aims to foster. Rather than considering ANT as a theory in the classic sense, we define it as a theoretical sensibility open to permanently redrawing its own shape in response to the relational entanglements it studies. ANT and its sibling, assemblage theory, have allowed scholars to attend to the complex ecologies within which agents, both human and non-human, mobilize to effect change in overlapping social, ecological, economic, and technological realms. In these studies, relations take precedence over substances, thereby forging a radically decentered, redistributed approach to mobilisation. As such, ANT offers a point of departure from dominant understandings of social movements that rely on modernist, dualist epistemologies; ANT studies have expanded the body politic through the incorporation of non-human actants, and redefined collective action as a form of association between heterogeneous entities. Ultimately, we argue that ANT is a useful tool in the task of constructing forms of attention and care that aspire to learn from and think with social movements, rather than explaining them away.

Key words: actor-network theory, assemblage, social movements, ontology, epistemology

Correspondence Address: [Israel Rodríguez Giralt, [IN3 - Internet Interdisciplinary Institute](#), Universitat Oberta de Catalunya, Av. Carl Friedrich Gauss, 5 08860 Castelldefels (Barcelona), Spain. irodriguezgir@uoc.edu]

Notes on Contributors

Israel Rodríguez-Giralt is Full Research Professor at the Internet Interdisciplinary Institute at Universitat Oberta de Catalunya, where he coordinates the CareNet Research Group. His research aims at connecting the Study of Social Movements and Science and Technology Studies. He has studied the role of technoscience in environmental activism and the politics of embodied knowledge within disability activism. His current research focuses on technoscientific activism and new forms of social experimentation, mobilization and public engagement, particularly in disaster situations.

Isaac Marrero-Guillamón is a Lecturer in Anthropology at Goldsmiths, University of London. His work examines the relationship between aesthetics and politics; more specifically the ways in which activism, artistic practice and cultural artefacts may contribute to the production of new conditions of possibility for collectives. He has explored this question ethnographically, through the study of urban (Barcelona, London) and eco-artistic (Fuerteventura) controversies.

Denise Milstein is a Lecturer in Sociology at Columbia University. Her work develops a relational, historically informed perspective at the intersection of art, politics and the environment. Her current projects examine the evolution of relationships between and among the changing environment – natural and human built – and local communities, artists, and scientists in New York City and in Tierra del Fuego (through the Ensayos nomadic research program). She is most interested in the dynamics that link cultural shifts and social change.

Acknowledgements: [The authors wish to thank the authors and reviewers that contributed to this issue with their writing and critiques. We also thank the SMS editorial staff for their support throughout the assembling of this issue.]

Reassembling Activism, Activating Assemblages: An Introduction.

Israel Rodríguez-Giralt, Isaac Marrero-Guillamón, Denise Milstein.

This special issue is the result of multiple encounters – between the editors, with the authors, between the authors and the movements they studied, between these movements and the constellation of entities that constitute their constituency, and between Actor-Network Theory (ANT) and other disciplinary approaches to social movements. We speak of *encounters* in order to highlight the sense of unexpectedness that surrounded this meeting of new collectives, ideas, and colleagues. The collection may have started with an invitation to think about social movements *as actor-networks*, but the materials gathered here transcend any straightforward identification between activist and conceptual formations. Indeed the ANT we are interested in reclaiming is not in the business of prefiguring either – rather, we associate it with a theoretical sensibility that is capable of redrawing both its own shape and that of the relational entanglements it studies.

This theoretical *movement* is indeed very clear in the work of Bruno Latour, a conversation with whom closes the issue. Even though he is a key figure in the development of ANT, his recent work (Latour 2012, 2017) has moved away from the concept of the actor-network as the main entry point to the study of the social in favour of greater openness to the variety of ‘modes of existence’ of entities and collectives, as well as the search for a conceptual language better equipped to articulate and examine the new situations and challenges our societies are facing – particularly the New Climate Regime, to use his own words.

In a similar sense, each of the articles in this issue, while explicitly drawing from ANT’s characteristic terminology, articulates its own analytic vocabulary. The authors’ encounters and engagement with singular social movements produced specific theoretical formations,

dialogues and variations. We argue that through these we may best observe and evaluate the contribution of ANT to the study of social movements. This introduction provides a roadmap to this task.

Towards a sociology of association

To paraphrase one of its founders, ANT is not a coherent, unitary approach, but rather a diffuse set of tools, sensibilities, and analytical methods which treat the social and natural worlds as the effect of continually generated webs of relations among heterogeneous elements: objects, subjects, humans, machines, animals, ideas, organizations, and so on (see Law, 2008: 141). As such, it is difficult to characterize or summarize it in few words. And yet, it is helpful to immerse ourselves in one of its most important and characteristic notions: the network (or actor-network¹). Given the importance of this notion to the conceptualization of present social movements, even if from perspectives different from the ones presented in this issue, we rely on the notion of an actor-network to pursue the main contributions we believe this perspective has to offer.

The notion of actor-network emerged in the late 1970s and early 1980s, in the context of Bruno Latour's laboratory studies at the Salk institute (see Latour, 1987; Latour and Woolgar, 1979). In those studies, he applied his anthropological gaze to the semiotics of the practices that lead to the production of scientific facts. In the laboratory Latour observed that arguments about the world were vague and constantly mixed the social and the natural. He also realized that scientists in the lab use a variety of methods to 'recreate' nature (Latour, 1987). These means include technological instruments, inscription tools (Latour and Woolgar, 1979), literary techniques for persuasion such as those used in scientific

publications (Latour, 1987), or political strategies (Knorr-Cetina and Cicourel, 1981). These methods and tools have generally been excluded both from sociological explanations and from the very narrative science develops about its own production. Science, as Latour observes, relies on a system of purification which systematically marginalizes the heterogeneous network of relations on which it relies and depends (Latour and Woolgar, 1979).

Latour's first formulation of a network emerged through that work, and represented the variety of activities that support and link scientists and engineers with ideas, groups, and technology. The network soon transcended the realm of science. ANT theorists argue that any entity with apparently clear boundaries, seemingly isolated from what surrounds it, could easily fall apart. An accident, a failure, or an unexpected interruption is enough for this entity or object to reveal the complex web of elements and entities that sustain it (Callon, 1987).

To speak of networks, then, is to speak of associations, of relations, of chains of materially heterogeneous elements which make possible the existence of a specific entity or actor. These networks are, as a result, different from the networks that have generally characterized sociology or geography. We are not before 'social networks,' 'communicative networks,' or 'power networks.' This notion of network has nothing to do with a logic, a technological operator, or a social form that interconnects and organizes already existing elements (López, 2005). The actor-network is a relational product halfway along the path between actors and networks, in Callon's words,

'(...) reducible neither to an actor alone nor to a network. Like networks it is composed of a series of heterogeneous elements, animate and inanimate, that have

been linked to one another for a certain period of time [...] But the actor network should not, on the other hand, be confused with a network linking in some predictable fashion elements that are perfectly well defined and stable, for the entities it is composed of, whether natural or social, could at any moment redefine their identity and mutual relationships in some new way and bring new elements into the network' (Callon, 1987: 93).

The concept of actor-network therefore manifests an important semiotic principle for ANT: all things are what they are because of the relationships they hold with other things, not because of an essential quality (Akrich and Latour, 1992). In other words, the objects or entities we analyze don't exist on their own; rather, they are constituted in and by the networks of which they are a part (Law and Mol, 1995). This, without a doubt, is the most controversial thesis underlying ANT, not least because it confronts modernist essentialist assumptions according to which we have theorized key social questions, including the issue of agency. In this new paradigm, agency is no longer a characteristic exclusive to humans. On the contrary, in actor-networks, or actant-rhizomes (Latour, 1999), or assemblages (Law, 2004; Farías and Bender, 2010), humans and non-humans constantly exchange properties, competencies, and identities (Latour, 1994). In this context, agency is the result of webs of association, that is, the consequence of a composition of elements, a delegation, or a distribution within a particular, hybrid entanglement (Michael, 2000). And yet, some networks may seem more 'human' or 'non-human' than others. Some may appear more 'individual,' while others seem more 'collective.' Most importantly for ANT, all these entities result from the activity of materially heterogeneous networks. They emerge from entanglements of elements that don't previously hold any ontologically fundamental relation among them.

This privileging of relation over substance is, undoubtedly, one of the main contributions of ANT. As Escobar and Osterweil (2013) observe, ANT interrogates the very notion of ‘the social’ which has traditionally dominated social thought.² Later, in *Reassembling the Social* (2005), Latour returned to this issue, insisting that the point is to slow down traditional sociology (given to over-interpreting, looking for short cuts, and rapidly summarizing complex situations using large concepts and abstractions). In this context, the actor-network is an innovative tool with which to unravel the dichotomies woven from the purifying ambitions of modern thought -- in a sense, an antidote to modern thought (Latour, 1991). Through a principle of *generalized symmetry* (Callon, 1986; Domènech and Tirado, 1998), the actor-network transforms a substance formerly understood as self-contained into the complex ecology of allies, accomplices, tributaries, and helpers it needs to subsist. It is, in this sense, a form of registering, a measure capable of slowing down and making visible each element that had previously been invisible, and which thus becomes a participant in the configuration of a specific phenomenon or actor (Latour, 2011). As such, it is also an effort to revisit the neo-monadological project initiated over a century ago by Gabriel Tarde,³ whose work has been foundational for social movement theory (Marrero-Guillamon, 2015). For Latour (2011), the actor-network holds the potential of connecting people across disciplines. Whether as biologists, urban theorists, neuroscientists, sociologists, or ecologists, scientists all confront the same dilemma generated by the possibility that there may be one principle, one whole - an organism, a homunculus, an institution, or a society - that is ‘above,’ ‘behind,’ or ‘at the margin of’ the parts that are being studied. The actor-network transcends this problem by reminding us that neither ontologically distinct entities nor superior ones exist: only organization, work (in the sense of *net-work*), materialization, and its localization

through networks. Assemblages do exist and the whole, as Latour writes, 'is always smaller than its parts' (Latour et al., 2012: 590).

Over the last thirty years, many disciplines have been attracted to ANT's re-theorisation of the social and its analytic toolkit (e.g. Austin, 2015; Czarniawska and Klein, 2005; Fariás and Bender, 2010; Gomart and Hennion, 1999; Leander, 2013; Rydin and Tate, 2016; Yaneva, 2009). This expansion has not been without its critics. Some have argued, for instance, that the overuse of the concept of network has reified it and impeded its applicability to the uncertain, unpredictable and fluid dimensions of social life (Law, 2004; Strathern, 1996; Mol, 2002). Others have criticised the perspective's tendency to foster accounts that privilege non-human agency (Bloor, 1999), or that artificially flatten the differences between human and other-than-human agencies (Routledge, 2008; Rajao and Jarke, in this issue). This line of critique has often been accompanied by a denunciation of ANT's excessively abstract and apolitical character (Galis and Summerton, in this issue). Feminist STS scholars, in particular, have condemned its favoured narrative approach, with its reliance on an instrumental, often bellicose logic (Haraway, 1997), and a disaffected language (Puig de la Bellacasa, 2011) which tends to privilege the point of view of the powerful over that of the subaltern (Star, 1991). Last but not least, some authors have also critiqued the actor-network approach for its difficulty in capturing dynamic processes such as transformation (McFarlane, 2009), differentiation (Fariás, 2012) and becoming (Ingold, 2011). These important critiques provide a measure of the interest ANT has triggered in the social sciences and beyond, as well as opening up a productive discussion around some of the perspective's key conceptual moves.

ANT and the study of social movements

ANT's singular contribution to studying and conceptualising social movements is evident in the body of work focusing on the complex and controversial relation between science, technology and activism. A prime example is Steven Epstein's (1995) excellent work on 'impure science', which investigates the radical reshuffling of clinical trials and scientific practices enacted by AIDS activists in the 1980s. Other important contributions include the work of Phil Brown et al. (2004) on popular epidemiology, health and environmental justice; Callon and Rabehariso'sa (2008) study of emergent concerned groups; and Rabeharisoa et al.'s (2014) work on evidence-based activism and rare diseases. The proliferation of technoscientific activism reveals both the centrality of knowledge and expertise in the construction of social and scientific hierarchies, and the capacity of activist collectives to challenge and democratise them (Hess, 2004) - be it from below, from the outside or from the inside. Indeed, technoscientific activism has involved a range of processes such as repositioning the authority of experts and professionals, introducing and revaluing embodied and lay forms of knowledge, reshuffling the economy and governance of scientific knowledge, and experimenting with new modes of scientific production and collaboration (Sismondo, 2008). ANT-inspired conceptualisations of technoscientific activism have often theorised how these collectives enact the very relations they depend on, thereby introducing new beings and entities into the world and creating new conditions of possibility for themselves (e.g. Murphy, 2012; Papadopoulus, 2010).

This issue builds on a body of work that has relied on ANT (and STS) to debate and question some of the dominant assumptions and dichotomies in the study of social movements (Diani and McAdam, 2003). Referring to the study of social movements, Melucci argues that 'in no other area of sociology is the weight of the dualistic tradition inherited from [the] nineteenth century so incongruous with the object of study' (1992: 239). It is perhaps for this reason that

some of ANT's basic tenets, such as the ontology of relation and material semiotics, have significantly impacted the social movements literature. ANT invites us to bypass a range of well-established *a priori* distinctions between, for instance, objective and subjective conditionings for individual and collective action (Klandermans, 1997), actors, networks and systems (Castells, 1997), resources and identities (Kitschelt, 1991), or macro, micro and meso levels of mobilisation (McAdam, McCarthy and Zald, 1988). Indeed, ANT's conceptual (and methodological) orientation offers an opportunity to rethink the very notions of social movement and collective action.

As discussed above, ANT does not conceive of action and agency as exclusively human faculties. Non-human actants such as birds (Sepúlveda, in this issue; Rodríguez-Giralt, 2015), material objects (Jerne, in this issue), digital technologies (Galis & Summerton, in this issue), data (Rajao and Jarke, in this issue), or sounds (Martín, in this issue) also have the capacity of *making others act*. In these cases, social action is always *collective action* in the sense of involving relations, concatenations, or collaborations between heterogeneous elements. As Melucci (1996) argued with reference to the study of social movements, a theory's success in conceptualising collective action depends on its capacity to provide a theory of social action and its collective dimension. ANT responds to this challenge by transforming collective action into associated, radically relational action – a hybrid composition whose agency can only be attributed to the specific arrangements or distributions within the network or relations it emerges from. Put differently, from an ANT point of view, the agency of collective action cannot be explained by recourse to subjacent or hidden structures, fields or identities (Rodríguez-Giralt, 2011).

Action is never fully transparent, or opaque, for ANT; rather, it is *translated, entangled, mediated, and intercepted* by varied and more or less unexpected actants. ANT studies have strived to offer an escape from overdetermined, teleological narratives of collective action. Hence, the preference for asking *how* social movements work and *what* they actually do, rather than *why*. A good example of this is Steward Lockie's (2004) analysis of the Australian landcare movement. He argues that notions of political opportunity, social structure or collective identity cannot explain how the movement became an 'obligatory passage point' (Callon, 1986) in the configuration of certain practices of agrarian and ecological planning. In order to explain how the movement managed to exert an influence and act 'at a distance' (Latour, 1987) it is necessary to unpack the relational dynamics of power and agency it had over farmers and rural environments. In other words, the extensive and precarious network of actors, corporate interests, democratic ideals, technoscientific objects and so on must be intensively mapped and described.

ANT also departs from well-established conceptualisations of group formation. From an ANT point of view, groups are not reducible to a single principle of association, be it class, gender, race, identity, etc. Instead, ANT studies tend to emphasise the uncertainty and impurity of the logic of association. The focus on controversies, conflicts, crises, and disasters is indicative of an interest in situations in which epistemological and even ontological certainties collapse. These are moments that challenge naturalised, readymade concepts, and which oblige us to engage anew in their immanence, with the unpredictable unfolding of associations (Marrero-Guillamón, 2013). Hence the focus that many of these accounts place on complex conglomerates, densely populated by diverse actants of uncertain behaviour, in turn interacting with other actor-networks equally complex and dynamic (Sheller, 2001).

As the above indicates, the way ANT studies utilise concepts such as network or assemblage differs significantly from other well-known uses in the field of social movement studies. Actor-networks, for instance, do not refer to a new cycle of protest characterised by the autonomous and horizontal use of new digital technologies (Castells, 2009; 2015). Neither do they describe a cultural logic that, enhanced by new technologies, ‘becomes a powerful model for (re)organizing society based on horizontal collaboration, participatory democracy and coordination through autonomy and diversity’ (Juris, 2008: 17). And they certainly do not refer to a new logic of connective action based on personalized content sharing across media networks (Bennett and Segerberg, 2012). Rather, ANT’s assemblages describe, above all, a series of *movements*, i.e. the activation of relations between heterogeneous (more-than-human) elements. In other words, an actor-network or assemblage is a precarious, contingent association between different actants and paths of action. This implies, in turn, that our work as social analysts is to reconstruct their dynamic of composition and recomposition; describe the continuous exercises of translation and association between materially heterogeneous entities; and understand how they mobilise a world and enable courses of action (Mendiola, 2003). And all this while avoiding making any *a priori* decisions regarding form and content of these actants (are they individual or collective? Local or global? Social or natural?).

An invitation to *think with* and *learn from* social movements.

ANT came out of an academic tradition opposed to the notion of matters of fact, or given facts, defined *per se*. Any fact or reality, even a seemingly uncontroversial ‘scientific fact,’ is constructed through a complex set of semiotic and material practices and relations. Facts are as *real* as they are *constructed*; *material* as well as *discursive*. They are, in short, *matters of*

concern, lively and contested assemblages, ‘their mode of fabrication and their stabilizing mechanisms clearly visible’ (Latour 2004: 246). Far from a mere critique of the notion of evidence, introducing the question of *concern* captures the enormous amount of work and affect it takes to assemble and sustain any entity – including, of course, activist formations.

Building on Latour’s matters of concern, Maria Puig de la Bellacasa (2011, 2012) has introduced the notion of ‘matter of care.’ Drawing from feminist theory, she defines care as simultaneously an affective state, a material vital doing, and an ethico-political obligation. As she puts it: ‘transforming things into matters of care is a way of relating to them, of inevitably becoming affected by them, and of modifying their potential to affect others’ (Puig de la Bellacasa, 2011: 99). Put differently, the language of care is an invitation to *think with* the collectives and issues we work with. This involves going beyond the set of commitments described above (showing their great complexity, attending to their hybrid and precarious composition) and finding ways of *speaking well* about the practices we study, that is, characterizing the mode of action of its practitioners without disregarding what matters to them (López, 2012). When it comes to the study of social movements, this may be translated as a commitment to approaching them not only as *recipients* of the academic gaze, but also as knowledge-making *agents* in their own right (Casas-Cortés et al. 2008). This implies a redistribution of expertise that, if and when taken up, has important implications for academic researchers. Indeed, many authors have proposed reconceptualising academic practice as something that happens alongside and/or in collaboration with the practice of the activist collectives themselves (e.g. Chesters, 2012; Choudry, 2015; Icaza and Vázquez, 2013; Osterweil, 2013; Rappaport 2008; Estalella and Sánchez, 2018; Rajao and Jarke, in this issue; Galis and Summerton, in this issue).

Thinking with and learning from social movements may also be understood as a particular form of engaging with (mostly) subaltern, anti-hegemonic or vernacular practices *in their own terms*, without subduing them to pre-existing, ready-made theorisations (Tironi and Rodríguez-Giralt, 2017). To paraphrase anthropologist Eduardo Viveiros de Castro (2014), the challenge is not to understand how a social movement sees the world, but rather to see the world it sees and acts upon. The commitment to inhabiting the conceptual and affective spaces of particular social movements is indeed at the core of what we think ANT can bring to the study of social movements. This is but one plausible strategy for contributing to the necessary task of restoring the plurality of ways of being in the world – as well as attempting to transform it (Milstein, 2016).

As Jeffrey Juris and Alex Kashnabish (2013) convincingly argue in their defense of ethnographic approaches to the study of transnational activism, conventional social movement theory, in its preoccupation with explaining the causes of mobilization and the consequences of collective action, has risked explaining them *away* via an assortment of more or less pre-existing, interconnected variables. Ethnography, for these authors, provides an epistemic device capable of generating new conceptualisations born out of the empirical encounter. We would like to make a similar claim regarding ANT: we believe that it enables a situated analytic sensibility, humble in its explanatory aspirations, and sustained by an empirical attentiveness to the movement's own conceptual production. Social movements can indeed be powerful conceptual machines: they may produce 'cosmograms' (Tresh 2005) which contain their own theory of the world (as well as of how to transform it). Unhinging the theorisation of social movements from any pre-established analytic framework is therefore more than a metaphysical operation; it amounts to redistributing established

relations of authority and entitlement between the *agents* and the *patients* of social movement theory.

But social movements are clearly more than conceptual machines: they enact and exist within entanglements of collective affect, organisational modes, personal commitments, tactical operations, strategic goals, etc. Thinking with these concatenations of heterogeneous elements and the work that goes into sustaining them, is also at the centre of this Special Issue. In other words, the articles here compiled make it a key task to learn from the ways in which collectives assemble themselves around matters of concern, establish alliances with a number of entities (human, non-human) and devise ways of caring for one another – or fail to do so.

Jorge Martín's analysis of the handling of a noise complaint in El Campo de Cebada, a self-run public space in Madrid, directly speaks to this question. Although the neighbour's complaint, according to the police, had no legal standing, all those involved agreed the issue would be best addressed in El Campo de Cebada's weekly assembly (its governing body). Within this open forum, those present agreed to a new set of (self)regulations in order to achieve a better framework for coexistence with the neighbours. The assembly enacted a 'politics of welcoming' based on the principle that the forum is a space where everything can be discussed and anyone can participate (c.f. Rancière, 2014; Estalella & Corsin, 2015). The fact that all those gathered by the noise complaint agreed to take their concerns to the assembly is a small, yet significant, inscription of the ethical and procedural *ethos* of a form of neighbourhood politics that emerged out of the 15-M/Occupy movement in Spain.

Christina Jerne's article on anti-Camorra activism in Campania (Italy) proposes a 'syntactical' analysis of the actions of this social movement, which effectively rearrange some of the key components of the mafia-assemblage (such as access to land and jobs) into a new anti-mafia whole. A confiscated asset and the peach trees that grow in it become the starting point of a new chain of associations between prisoners, traditional farming, labour opportunities, and ethical consumption. Anti-Camorra activism consists here in enacting alternative futures for those most likely to participate in the mafia, achieved through a recombination of more or less familiar elements. Rather than trying to resist or confront the Camorra itself, activists have tackled and reshuffled some of its constituent relations. Jerne's larger theoretical point is that assemblage theory, drawing on DeLanda (2006), but also including ANT, is particularly well placed to detect these operations, as it does not rely on an a priori separation between the social, the economic and the political, or between subjects and objects, which would make it harder to make sense of an activism that exists in the form of connections and circulations between heterogeneous elements.

In both papers, we see an important displacement in the methods and goals of activism, away from antagonism and towards (micro) practices of '(re)composition.' While the latter may be seen as examples of prefigurative politics (and indeed an equivalence between methods and ends is part of them), it is necessary to highlight the extent to which anti-Camorra activism and El Campo de Cebada are constituted of tentative practices oriented to the present. In other words, they are less about anticipating already-imagined futures than about experimenting with viable alter-presents – the shape of which can only be provisionally figured out in practice.

This experimental dimension of collective action is explored by Gallis and Summerton in their study of tactical appropriations of technology by activists targeting the policing of immigration in Sweden. Bringing together border studies, social media studies and STS, their article describes how activists use cyber-material alliances in order to create Temporary Autonomous Zones (Bey, 2011) which sidestep police controls in public space and transport. One such ‘underground’ infrastructure is REVA Spotter, a tool for tracking police identity checks in Stockholm using Facebook, which is both a manifesto and a tool for nonviolent resistance against police methods. REVA Spotter assembles digital technologies, activists, undocumented migrants, mobile phones, and so on into an infrastructure for cyber-material autonomy (Barad, 2003) against the bordering practices of the State.

The inter-relation between the digital and the physical – or in other words the co-production of the material and the semiotic – is also part of Raoni Rajão and Juliane Jarke’s article for this collection. Their study of the intersection between data and activism in the Amazon rainforest argues that the level of aggregation (e.g. regional figures vs. individual events) and temporality (e.g. yearly consolidations vs. near real-time releases) of open data shape institutional responses, configure the performance of environmental activism, and mediate the dialogue between activists and policy makers. Different publics and data configurations (i.e. spatial and temporal aggregation levels) produce different objects (e.g. a threatened Amazon, a successful policy) and subjects (e.g. knowledgeable environmental activists, an unresponsive government). Interestingly, the text also refers to this co-production from a material-discursive perspective, but arguing for a rearticulation of asymmetry between humans and non-humans (Suchman, 2007). In other words, it puts forward a recovering of certain subject-object positions, while at the same time recognising their sociomaterial and hybrid condition. This is particularly so for different open data arrangements and their

performative effects on the different affordances and subject positions of scientists, environmental activists and policy makers.

Claudia Sepúlveda's work centers on affect and the activation of politics (Rancière, 2001) through the interpellation produced by the suffering of swans in Rio Cruces, Chile. The case interrogates the political agency of nonhumans, particularly as activators of an environmentalist movement in the early stages of a disaster, their role in expanding the borders of political communities and to reveal non-dominant ontologies. Sepúlveda considers the agency of the swans alongside the agencies of the humans they incite into organized action, and used this to critically discuss the place of animals in posthumanist philosophies and politics. Her study raises productive questions for the study of new forms of environmentalism that do not rely solely on humans and their environment, but on an expanded concatenation of relations mediated by animals and their suffering.

We close this collection with a very special interview with Bruno Latour, organised *a propos* the recent publication of *Facing Gaia* (2017) and *Down to Earth: Politics in the new Climate Regime* (2018). The conversation is framed around an overarching concern for how to respond to the urgent demands that climate change places on us. In relation to this, Latour criticises the continuing reliance on a Modern epistemology evident in a majority of social movements, including environmental movements that deploy reified notions of nature and science, as well as those movements that conceive of emancipation as a solely *social* affair, thereby excluding non-humans from politics. None of these positions, Latour argues, will help us face the 'return to geopolitics' ahead of us. Instead, it may be necessary to question both the notion of the social and of movement embedded in social movement theory and praxis. Latour proposes envisioning movements beyond the constraints of set or overly stable

convictions and recognized and accepted forms of militancy. He advocates instead for considering what processes (as opposed to ideas) are capable of *moving* people and, potentially mobilising a new demos. Conversely, Latour discusses an expanded materialism that stretches beyond social struggles and which recognises the geosocial challenges of living and struggling on damaged planet.

References

- Akrich, M. and Latour, B. (1992). A summary of a convenient vocabulary for the semiotics of human and nonhuman assemblies. En W. E. Bijker y J. Law (Eds.), *Shaping Technology/building society: Studies in sociotechnical change* (pp. 259-264). Massachusetts: Mit Press.
- Austin, J. L. (2017). We have never been civilized: Torture and the materiality of world political binaries. *European Journal of International Relations*, 23(1), 49–73. <https://doi.org/10.1177/1354066115616466>
- Barad, K. (2003). 'Posthumanist performativity: Toward an understanding of how matter comes to matter'. *Signs: Journal of women in culture and society*, 28(3), pp. 801-831.
- Bennett, W. L., & Segerberg, A. (2012). The logic of connective action. *Information, Communication & Society*, 15(5), 739–768. <http://doi.org/10.1080/1369118X.2012.670661>
- Bey, H., (2011). *TAZ: The temporary autonomous zone*. United States: Pacific Publishing Studio.
- Bloor, D. (1999). Anti-latour. *Studies in History and Philosophy of Science Part A*, 30(1), 81-112
- Brown, P., Zavestoski, S., McCormick, S., Mayer, B., Morello-Frosch, R., & Gasior Altman, R. (2004). Embodied health movements: new approaches to social movements in health. *Sociology of Health and Illness*, 26(1), 50–80. Retrieved from <http://www3.interscience.wiley.com/journal/118769656/abstract>
- Callon, M. (1986). Some elements of a sociology of translation: Domestication of the scallops and the fishermen of St. Brieuc bay. A Michel Callon y John Law [eds.], *Power, action and belief: A new sociology of knowledge* (pp. 196-223). London: Routledge & Kegan Paul.
- Callon, M. (1986). Some elements of a sociology of translation: Domestication of the scallops and the fishermen of St. Brieuc bay. A Michel Callon y John Law [eds.], *Power, action and belief: A new sociology of knowledge* (pp. 196-223). London: Routledge & Kegan Paul.
- Callon, M. (1987). Society in the making: The study of technology as a tool for sociological analysis. A Wiebe E. Bijker, Thomas P. Hugues y Trevor J. Pinch [eds], *The social construction of technological systems: New directions in the sociology and history of technology* (pp. 83-103). Cambridge (MA): MIT Press.
- Callon, M., & Rabeharisoa, V. (2008). The growing engagement of emergent concerned groups in political and economic life: Lessons from the French association of

- neuromuscular disease patients. *Science, Technology, & Human Values*, 33(2), 230-261
- Casas-Cortés, M. I., Osterweil, M., & Powell, D. E. (2008). Blurring Boundaries: Recognizing Knowledge-Practices in the Study of Social Movements. *Anthropological Quarterly*, 81(1), 17–58. <https://doi.org/10.1353/anq.2008.0006>
- Castells, M. (2009). *Comunicación y poder*. Madrid: Alianza.
- Castells, M. (2015). *Networks of outrage and hope: Social movements in the Internet age*. Cambridge: Polity Press.
- Castells, Manuel (1997). *The power of identity*. Malden, Mass.: Blackwell.
- Chesters, G. (2012). Social movements and the ethics of knowledge production. *Social Movement Studies*, 11(2), 145–160.
- Choudry, A. (2015). *Learning activism: The intellectual life of contemporary social movements*. Toronto: University of Toronto Press.
- Czarniawska, B., & Hernes, T. (Eds.). (2005). *Actor-Network Theory and Organizing* (1 edition). Malmö: Copenhagen Business School Pr.
- DeLanda, M. (2006). *A New Philosophy of Society: Assemblage Theory and Social Complexity*. London: Continuum.
- Deleuze, G. and Guattari, F. (1987). *A Thousand Plateaus. Capitalism and Schizophrenia*. London: University of Minnesota Press.
- Diani, Mario and Doug McAdam (2003). *Social movements and networks: relational approaches to collective action*. Oxford; New York: Oxford University Press.
- Domenèch, M. and Tirado, F. (1998). *Sociología simétrica: Ensayos sobre ciencia, tecnología y sociedad*. Barcelona: Gedisa.
- Epstein, S. (1995). The Construction of Lay Expertise: AIDS Activism and the Forging of Credibility in the Reform of Clinical Trials. *Science Technology Human Values*, 20(4), 408–437. <http://doi.org/10.1177/016224399502000402>
- Escobar, A. & Osterweil, M. (2013). Social Movements and the Politics of the Virtual: Deleuzian Strategies. In C. Bunn Jensen and K. Rödje. *Deleuzian Intersections: Science, Technology, Anthropology*. pp. 187-218. Berghahn Books.
- Estalella, A., & Corsín, A. (2015). Matters of sense Preoccupation in Madrid 's popular assemblies movement. In A. Blok & I. Farías, *Urban Cosmopolitics: Agencements, Assemblies, Atmospheres*, pp. 147–163. London: Routledge.
- Estalella, A. and Sánchez, T. (2018) *Experimental Collaborations: Ethnography through Fieldwork Devices*. Oxford: Berghahn.
- Farías, I., & Bender, T. (Eds.). (2009). *Urban assemblages: How actor-network theory changes urban studies*. London: Routledge.
- Gomart, E., & Hennion, A. (1999). A Sociology of Attachment: Music Amateurs, Drug Users. *The Sociological Review*, 47(1_suppl), 220–247. <https://doi.org/10.1111/j.1467-954X.1999.tb03490.x>
- Haraway, Donna (1997) *Modest_Witness@Second_Millennium. FemaleMan©_Meets_OncomouseTM*. London and New York: Routledge.
- Hess, D. (2004). Guest editorial: Health, the environment and social movements. *Science as Culture*, 13(4), 421–427. <http://doi.org/10.1080/0950543042000311797>
- Icaza, R., & Vázquez, R. (2013). Social Struggles as Epistemic Struggles. *Development and Change*, 44(3), 683–704. <https://doi.org/10.1111/dech.12039>
- Ingold, T. (2011). *Being Alive. Essays on movement, knowledge and description*. London: Routledge.
- Juris, J. (2008). *Networking Futures: The Movements against Corporate Globalization*. Durham: Duke University Press.

- Juris, J. S., & Khasnabish, A. (2013). Introduction: Ethnography and Activism within Networked Spaces of Transnational Encounter. In J. S. Juris & A. Khasnabish (Eds.), *Insurgent Encounters: Transnational Activism, Ethnography, and the Political* (pp. 1–36). Durham ; London: Duke University Press.
- Karakass, O. (in press). *Gezi Assemblages: Emergence as Embodiment in the Gezi Movement* (Doctoral dissertation). Barcelona: Universitat Oberta de Catalunya.
- Kitschelt, Herbert (1991), 'Resources Mobilization Theory: A Critique', in Dieter Rucht [ed.], *Research on social movements: the state of the art in Western Europe and the USA*, Boulder, Colo.: Westview Press.
- Klandermans, Bert (1997). *The social psychology of protest*. Oxford, UK: Blackwell Publishers.
- Knorr-Cetina, K and Cicourel, A. V. (1981). *Advances in social theory and methodology: Toward an Integration of Micro- and Macro-Sociologies*, London: Routledge & Keagan Paul.
- Latour, B. (1987). *Science in Action: How to Follow Scientists and Engineers through Society*. Cambridge, MA: Harvard University Press.
- Latour, B. (1991). *Nunca fuimos modernos. Ensayo de antropología simétrica*. Buenos Aires: Siglo XXI, 2007.
- Latour, B. (1994). Where are the missing masses? The sociology of a few mundane artifacts. En Wiebe Bijker and John Law [eds.], *Shaping technology / building society: studies in sociotechnical change* (pp. 225-258). Cambridge, MA: The MIT Press.
- Latour, B. (1999). On Recalling ANT. En John Law and John Hassard [eds.], *Actor Network and After* (pp. 15-25). Oxford: Blackwell and the Sociological Review.
- Latour, B. (2005), *Reassembling the social: An introduction to actor-network-theory*. Oxford: Oxford University Press.
- Latour, B. (2010). The Social After Gabriel Tarde: Debates and Assessments. In M. Candea (Ed.), *The Social After Gabriel Tarde: Debates and Assessments*. London: Routledge.
- Latour, B. (2011). Networks, Societies, Spheres: Reflections of an Actor-Network Theorist. *International Journal of Communication* 5, 796–810.
- Latour, B. (2017). *Facing Gaia: Eight Lectures on the New Climate Regime*. Cambridge: Polity Press.
- Latour, B. (2018). *Down to Earth: Politics in the New Climatic Regime*. Cambridge: Polity Press.
- Latour, B. and Woolgar, S. (1979), *Laboratory Life: the Social Construction of Scientific facts*. London and Beverly Hills: Sage.
- Latour, B., Jensen, P., Venturini, T., Grauwin, S., & Boullier, D. (2012). 'The whole is always smaller than its parts'—a digital test of Gabriel Tardes' monads. *The British journal of sociology*, 63(4), 590-615
- Law, J. (2004). *After method: Mess in social science research*. London: Routledge.
- Law, J. (2008). Actor-Network Theory and Material Semiotics. En Bryan S. Turner. *The New Blackwell Companion to Social Theory 3rd Edition* (pp. 141-158). London: Blackwell.
- Law, J. and Mol, A. (1995). Notes on materiality and sociality. *Sociological Review*, 43 (2), 274-294.
- Leander, A. (2013). Technological Agency in the Co-Constitution of Legal Expertise and the US Drone Program. *Leiden Journal of International Law*, 26(4), 811–831.
<https://doi.org/10.1017/S0922156513000423>

- Lockie, Stewart (2004). Collective Agency, Non-Human Causality and Environmental Social Movements: A Case Study of the Australian 'Landcare Movement. *Journal of Sociology*, 40(1): 41-57.
- López, D. (2005). Aplicación de la teoría del actor-red al análisis espacial de un servicio de teleasistencia domiciliaria. *AIBR. Asociación de Antropólogos Iberoamericanos en Red*, núm 44, 19-30.
- López, D. Transiciones hacia otra(s) teoría(s) del actor-red: agnosticismo, interés y cuidado. En: Tirado, F. y López, D. (editores). *Teoría del actor-red. Más allá de los estudios de ciencia y tecnología*. Barcelona: Amentia, 2012, p. 157-186.
- Marrero-Guillamón, I. (2013). Actor-Network Theory, Gabriel Tarde and the Study of an Urban Social Movement: The Case of Can Ricart, Barcelona. *Qualitative Sociology*, 36(4), 403–421.
- Marrero-Guillamón, I. (2015). Monadology and ethnography: Towards a Tardian monadic ethnography. *Ethnography*, 16(2), 240-261
- McAdam, Doug, John McCarthy, J. and Mayer Zald (1996). *Comparative perspectives on social movements: political opportunities, mobilizing structures, and cultural framings*. Cambridge: Cambridge University Press.
- McFarlane, C. (2009). Translocal assemblages: space, power and social movements. *Geoforum*, 40(4), 561-567
- Melucci, Alberto (1992), 'Frontier Land: Collective Action between Actors and Systems', in Mario Diani and Roy Eyerman [eds.], *Studying Collective Action*, London: Sage.
- Melucci, Alberto (1996). *Challenging codes: collective action in the information age*. Cambridge: Cambridge University Press.
- Mendiola, Ignacio (2003). Hacia una redefinición de los movimientos sociales: macroactores proxémicos, *Athenea Digital*, 4(2): 68-86.
- Michael, M. (2000). *Reconnecting Culture, Technology and Nature: From Society to Heterogeneity*. London: Routledge.
- Milstein, D. (2016). The Cold War and Musical Convergence in Uruguay. *Estudios Interdisciplinarios de América Latina y el Caribe*, 27(1): 39-60.
- Mol, A. (2002). *The body multiple: ontology in medical practice*. Durham: Duke University.
- Murphy, M. (2012). *Seizing the means of reproduction: Entanglements of Feminism, Health and Technoscience*. Durham, NC: Duke University Press.
- Nail, T. (2017). What Is an Assemblage? *SubStance*, 46(1), 21–37.
<http://doi.org/10.2307/2246769>
- Osterweil, M. (2013). Rethinking public anthropology through epistemic politics and theoretical practice. *Cultural Anthropology*, 28(4), 598–620.
- Papadopoulos, D. (2010). Alter-ontologies: Towards a constituent politics in technoscience. *Social Studies of Science*, 41(2), 177–201.
<https://doi.org/10.1177/0306312710385853>
- Phillips, J. (1988). Agencement / Assemblage. *Theory, Culture & Society*, 23, 108–109.
<http://doi.org/10.1177/026327640602300219>
- Puig de la Bellacasa, M. (2011). Matters of care in technoscience: Assembling neglected things. *Social Studies of Science*, 41(1), 85–106.
- Puig de la Bellacasa, M. (2012). 'Nothing comes without its world': thinking with care. *The Sociological Review*, 60(2), 197–216. Retrieved from
<http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2012.02070.x/full>

- Rabeharisoa, V., Moreira, T., & Akrich, M. (2014). Evidence-based activism: Patients', users' and activists' groups in knowledge society. *BioSocieties*, 9(2), 111–128. <http://doi.org/10.1057/biosoc.2014.2>
- Rancière, J. (2014). *Hatred of Democracy*. London and New York: Verso Books.
- Rodríguez-Giralt, I. (2011). Social movements as actor-networks: Prospects for a symmetrical approach to Doñana's environmentalist protests. *Convergencia*, 18(56): 13-35.
- Rodríguez-Giralt, I. (2015). Birds as lines: The production of alternative regimes of environmental management in the aftermath of a toxic disaster. *Geoforum*, 66, 156–166. <http://doi.org/10.1016/j.geoforum.2015.05.002>
- Routledge, P. (2008). Acting in the network: ANT and the politics of generating associations. *Environment and planning D: Society and space*, 26(2), 199-217.
- Rydin, Y., & Tate, L. (Eds.). (2016). *Actor Networks of Planning: Exploring the Influence of Actor Network Theory* (1 edition). London ; New York, NY: Routledge.
- Sheller, Mimi (2001), 'The Mechanisms of Mobility and Liquidity: Re-thinking the Movement in Social Movements,' published by the Department of Sociology, Lancaster University, Lancaster LA1 4YN, UK. <http://www.comp.lancs.ac.uk/sociology/papers/Sheller-Mechanisms-of-Mobility-and-Liquidity.pdf> [Revised, 1 February, 2018]
- Sismondo, S., (2008). Science and technology studies and an engaged problem. In: Hackett, E.J., Amsterdamska, O., Lynch, M., Wajcman, J. (Eds.), *The Handbook of Science and Technology Studies*. Third edition. The MIT Press, Cambridge, MA, pp. 13–31.
- Star, Susan Leigh (1991), 'Power, Technologies and the Phenomenology of Conventions: on being Allergic to Onions', pages 26-56 in John Law (ed.), *A Sociology of Monsters? Essays on Power, Technology and Domination*, Sociological Review Monograph, 38, London: Routledge.
- Strathern, M. (1996). Cutting the Network. *The Journal of the Royal Anthropological Institute* 2(3), 517-535.
- Suchman, L. (2007). *Human-machine reconfigurations: Plans and situated actions*. Cambridge: Cambridge University Press.
- Tironi, M., & Rodríguez-Giralt, I. (2017). Healing, knowing, enduring: Care and politics in damaged worlds. *The Sociological Review*, 65(2_suppl), 89–109. <http://doi.org/10.1177/0081176917712874>
- Yaneva, A. (2009). Making the Social Hold: Towards an Actor-Network Theory of Design. *Design and Culture*, 1(3), 273–288. <https://doi.org/10.1080/17547075.2009.11643291>

Endnotes

¹ Terminology has evolved in important ways within ANT. For example, Law (2004) does not differentiate between actor-network and assemblage in his work, since he considers both notions to be provisional empirical translations of the nomadic philosophy of Deleuze and Guattari (1987), other authors have questioned the elegance and pertinence of continuing to use both the term actor-network and the idea of a network. Latour (1999) himself has proposed, for example, using the term actant-rhizome to sidestep the misunderstandings produced by the idea of actor-network, which is excessively associated with the structure/agency debate and the 'double-click' (the assumption that one can obtain direct, unmediated access to truth) connotations in the notion of network. Another set of scholars has, for similar reasons, adopted the notion of assemblage (Fariás & Bender, 2010; Karakass, in press), in spite of the limitations this word has in its English translation (Phillips, 1988; Nail, 2017). This introduction recognizes the contention over these terms and contextualizes the origin and historical evolution of these ideas while, on the other hand, encouraging a productive dialogue between this concept and

others currently in use in the field of social movements. For these reasons, the notions of actor-network and network seem to us 'provisional' and 'transitional' objects, though especially productive in this context.

² Bruno Latour (1999) profoundly interrogates 'the social' as he unravels the different elements that conform Actor-Network Theory, a concept which, in his perspective, has been deeply misinterpreted. He argues that the two main ideas for which it is named, that of actor and network, have been commonly misinterpreted as an (erroneous) intervention of ANT in the classical debate between agency and structure. For Latour, the notion of actor-network responds to two concrete frustrations: On one hand, the problem produced by micro-social foci, which account for local interactions but encounter challenges when connecting these to more general or abstract explanatory contexts. On the other hand, the reverse problem that occurs when more culturally, sociologically, and abstract approaches attempt to ground the invisible or general laws that shape and structure situations. The notion of actor-network, he argues, puts a stop to the ad infinitum regeneration of these problems. It does so by turning the points of departure into the object of sociological analysis -- that is, by turning the social into a trajectory, a movement, a circling entity. The actor-network thus facilitates the reconciling of local interactions and socially organized action.

³ As Karakass (in press) indicates, Deleuze and Guattari's notion of assemblage, just like that of actor-network, builds on the micro-sociology of Tarde. As such, it relies on an understanding of reality as a heterogeneous compound made of diverse elements - material in nature, or semiotic, etc. Assemblages are likewise opposed to the Durkheimian interest in 'the great collective representations, which are generally binary, resonant, and overcoded' (Deleuze & Guattari, 1987: 218).