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Unbuttoning normalcy – on cosmopolitical events

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Abstract

The history of social research can be read as a *critical* endeavour inasmuch as it unbuttons the normalcy of collective action by *multiplying* relevant actors and the imaginaries of social reality. I show how paying close sociological attention to what I call *cosmopolitical events*, offers one approach to such a conception of critical social science. In the paper, I explore the effects of the Japanese events at the Fukushima nuclear plant to unfold its significance as consequences that disrupt, question and alter common and taken for granted modes of ordering social life. Specifically, through approaching Fukushima as a cosmopolitical event we gain insight into the complex processes of normalizing social relations. Moreover, the Fukushima event and its effects demand to extend the history of the sociological imagination to the social and political relevance of the non-human. What emerges is a practice that enriches the process of unfolding *research agendas and conceptual space* to include those that have been excluded, marginalized, forgotten, unconsidered, or disfigured in the process of normalizing social and political action.

Introducing cosmopolitical events

From their research experience sociologists know how much work is involved in making the 'non-normal' pass as a normal, ie naturally looking social relation (Garfinkel, 1967, 2006). At the same time sociological research often struggles with the difficulties of letting 'the social' speak precisely when social action is taken for granted and considered as normal by the actors involved. The more taken-for-granted, normal and 'real' social action is, the more the complex orderings of the social are 'black boxed' or 'undone', the more social action appears as 'natural' and the more difficult it becomes *to trace* the actors and their actions (Latour, 2005a).

One way of tackling the problem is to analyse and reflect upon practices as they emerge through interrogation of common, taken-for-granted socio-cultural settings and their alienations (Hirschauer and Amann, 1997). Such an agenda is meant to enable the social researcher to trace the everyday labour of association and division that enact the spatio-temporal realities of the social (Hetherington and Munro, 1997). Thereby, sociological research makes us

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aware of what it means to live in *as well as* to dispute 'normal' and highly institutionalized settings. It also brings to the fore *what* and *how* distinctions are used within these settings to configure humans and things as 'normal' or 'non-normal', as if these differences were 'decided by nature' (Garfinkel, 1967: 124). Obviously, the 'non-normal' that questions, corrupts and may alter the supposedly 'normal' comes in different forms and shapes. Luckily, over the past century, the different agendas of social research have been concerned with practices that affirm or challenge social normalcy: the feminist imaginary and postcolonial experience, the figure of the oppressed worker, the migrant, the fugitive, the mad, the global stranger and cultural Other, the disabled and the ill. They all play a central role in understanding the emergence, maintenance and transformation of social relations. By this means, social research gains a critical voice inasmuch as it unbuttons the normalcy of collective action by *multiplying* relevant actors and the imaginaries of social reality.

In what follows I offer an extension to the politics of *multiplying imaginaries* through approaching a particular event as *cosmopolitical*. By 'cosmos' I do not mean a homogeneous *uni-verse* but a '*pluri-verse*' of different (often controversial and contradictory) modes of agency, ordering and existence (cf. James, 1912; Latour, 2005a; Law, 1994; Souriau, 2009). Moreover, cosmos is not a static agglomerate but an eventful process of 'worlding' (Heidegger, 2000: 175) that relates and thereby generates heterogeneous entities (cf. also Harman, 2009; Latimer, 2009a, 2009b; Latimer and Munro, 2009; Schillmeier and Heinlein, 2009). As amongst others, Latour and Heidegger have noticed, it is precisely the etymology of the notion 'thing' (the German 'Ding') that does not refer to given matter of facts but captures the (often disputed³) process of eventful associating that brings our social world into being (Heidegger, 1994, 2000; Latour, 2005a; Munro, 2006). In this emphasis I am highlighting a novel form of sociological realism⁴ that tries to multiply instead of fixing the politics of imagining social worlds. As Latour notes:

By the German neologism *Dingpolitik*, we wish to designate a risky and tentative set of experiments in probing just what it could mean for political thought to turn "things" around and to become slightly more *realistic* than has been attempted up to now. (Latour, 2005a: 4)

Such an experimental attitude iterates a well-known theme of interpretative sociological research stressing that things could be otherwise (cf. Hughes, 1984). It names a *political* endeavour as well, since it demands a constant and thorough rethinking of the politics of imagination, power relations, norms and normativities, and 'labour of divisions' (Munro, 1997) that have brought the very realities of the social (cosmos) into being.

Moreover, it also challenges the way we social scientists observe and conceptualize the social. 'Events' and their effects name happenings in the course of our life that question, disrupt and alter the normalcy of social reality (cosmos) in a singular, more or less rare and often abrupt, unexpected, alienating and

endangering but also freeing, liberating and emancipating way. To be sure, cosmopolitical events may happen every day but they are not everyday events. Rather, they are exceptional and articulate 'states of exception'. Notwithstanding, cosmopolitical events help to imagine the everyday social as different from being 'decided by nature' but vulnerable to uncertainty and change. Social realities before and after cosmopolitical events differ significantly. Their effects introduce novelty, innovation, invention, pleasure but also uncertainty, insecurity, non-knowledge, and suffering. Cosmopolitical events are also topologically complex. They do not follow a fixed scale of action and related consequences. Hence, they refer to different scenarios such as 9/11 (Holloway, 2008), the Berlin Wall and its fall (Manghani, 2008), falling in love (Nancy, 2003), dementia (Schillmeier, 2009b), a possible pandemia of viral infection like SARS (Schillmeier, 2008, 2009a, Schillmeier and Pohler, 2006), or a stroke (Schillmeier and Heinlein, 2009), just to name a few. Cosmopolitical events gain importance in the way their heterogeneous and contingent consequences affect social reality. The event, so the Belgian philosopher Isabelle Stengers suggests, 'has neither a privileged representative nor legitimate scope. The scope of the event is part of its effects, of the problem posed in the future it creates' (Stengers, 2000: 67). Cosmopolitical events as different as 9/11, dementia, a stroke, or SARS may have 'global' effects on the beings and relations involved. These may thoroughly affect individuals and their life-world (as is the case with dementia⁵), or may spread dangerously across individuals, neighbourhoods, cities, regions, nations, continents and even the whole globe (as it is the case concerning the risk of a pandemic like AIDS, SARS or many other infectious diseases). Thus, it is the contingent but specific effects of cosmopolitical events that make up their complexities. Thus, 'small' and 'big' magnitudes of social phenomena have their own complexity. Whether the local or the global which is more or less complex cannot be predetermined. The 'small' and the 'big' gain their own 'non-isomorphic' complexities (cf. Latimer and Munro, 2009; Munro, 1996; Munro, 2005; Strathern, 1993, 2004). This means that a demented single person or a person who is suffering from the effects of a stroke is as complicated/ing as is the risk of global migration of the SARS virus. It demands the same openness to questions concerning complex social (dis-)order:

A 'small' thing can thus be made to say as much as a 'big' thing. (. . .) If one can ask 'big' questions of 'small' data, then the difference between big and small disappears. It is reinstated only with the reinstatement of perspective and levels, and a concomitant sense of the partial nature of description. (Strathern, 2004: XIV–XX)

For sociologists (and Westerners in general) it is a central part of social complexity to refer to the possibility of switching the perspective one can take on things (Strathern, 2004: XIV; cf. also Latimer, 2007, 2009b; Munro, 2005). It is precisely the relations of different perspectives that configure

social phenomena. For example, to illuminate the social complexity of any phenomena the analyst can move between different systems (eg political, economical, juridical) (cf. Luhmann, 1992, 1995). He/she may also change scale moving from singular cases to many cases, from national to transnational comparisons, from macro- to nano-structures and back again. Obviously, through scale-change relations and connections are magnified and multiplied - no matter if it concerns a switch from 'small' to 'big' data or vice versa. At the same time though, Strathern (2004: XV) rightly points out, switches in scale also enact a 'loss' of perspective inasmuch as the presence of the one makes the presence of the other absent. Such effects of 'motility' (cf. Munro, 2005) often create endless discussions and accusations that an analyst and the different concepts/perspectives involved offer unsatisfactory scales of analysis that do not get the 'full picture'. Thus, it is neither sufficient to say that the 'local' or the 'global' make up the full picture nor that the switching from 'the local', the 'national' to 'the global' provides the full picture. The problem of the 'full picture' is primarily a matter of the general limits of any analyst and thus independent of the different scales put in practice (ibid.).

Japanese events

The Japanese earthquake and the related tsunami are actual examples of cosmopolitical events and their possible effects. They show that the 'social normal' can easily and thoroughly be shattered, endangered and ruined. Due to global media communication (eg www.cnn.com, www.cbs.com; www.ntv.de) we fiercely follow – in real time – a multi-layered catastrophe that ties harmful natural and artificial forces with the endangerment of human life. It emerges as an event because of how it enforces a brutal stop and thorough change of common social and cultural life, destroys infrastructures, and generates political helplessness, societal controversies, and economic slumps. In Fukushima Dai-ichi, it has lead to the breakdown of a nuclear power plant, which has turned the supposedly low or residual risk of a nuclear accident into an occurring catastrophe with uncertain and unknown denouements. The earthquake and its effects name a truly cosmopolitical event that radically unsettles and endangers the orders of human and non human-life as well as it disrupts, questions and changes the institutionalized contrivances of societal relations. Such an event describes a dramatic occurrence, the emergence of some incident in an unforeseeable way, which is nevertheless contingent, not necessary: it happened, but it could as well not have happened, and it is neither predictable nor reproducible. But once it has taken place, it conditions facts coming after it, of which it will become a constitutive part. It is unleashed by and generates the agency of a multiplicity of actors - human and non-human alike. The Fukushima event unravels the most unsettling scenery since it articulates a highly technological irreversible process with possible adverse effects, which happens to be most difficult to govern safely. Such a crisis of human agency and its

institutional settings unleashes the discussion of new forms of political imaginaries. Controversies arise concerning questions of how we live and how we want to live. The Japanese events and their effects initiated a global discussion concerning our cosmos that is exceedingly mediated by high-risk technologies and disputes possible alternatives. What is decisive about the manifold consequences of the Japanese events is, that they exerted a nearness and entanglement between culture and nature, people and technologies, life and death, knowns and unknowns, the past, present and future. If we want to analyze such tight coupling of Otherness, we need to acknowledge first of all that social worlds cannot be understood as a mere human and/or rational affair. Rather, the social emerges as a risky and uncertain association of human and non-human relations (Latour, 2005a).6 It brings to the fore the social relevance of non-human relations (natural and artificial) and the way these relations gain political agency. Consequently, if we consider it as a main objective of the social scientific agenda and its 'politics of imagination' (this issue: Hughes and Coser, 1994; Mills, 2000) to unrayel, interrogate and politicize 'normalization', we always have to deal with the Other, the uncertain, the unknown, the non-social, the non-human that may also put at risk our own understanding of the social normal. It throws light on the multiple facets of what Ulrich Beck calls 'cosmopolitanization' (cf. Beck, 2006, 2009), ie empirical political processes and actors that unbutton normalization and reveal the eventfulness of social relations. These processes are political insofar as they multiply relevant actors, which configure and reconfigure the social 'cosmos' as a pluri-versal event with contingent effects. The latter give agency to the non-expected Other, the non-normal, the nonhuman, the non-social, the un-common. These 'Others' gain agency by unknotting, questioning and altering 'the normal' as a highly normative construct of situated power relations. Due to that, we sociologists are constantly forced to re-imagine the possible actors and agency involved. In effect, supposedly standard, natural or pre-given identities and differences that define the normal or pathological, the good or bad, the hegemonic or marginal come into view as the effect of situated human and non-human relations that unfold their own, unpredictable realities.

Sociology can learn much about 'the social normal', if it is sensitive to 1) the agency of the 'non-normal' and 2) the eventfulness of social relations that question the politics of imagining social normalcy. Hence, social research that insists on giving the 'non-normal' a voice may also question the conventions of social sciences by means of *constructing* novel ways of conceiving the social. This does not mean to become sociologically unscientific. Quite on the contrary! Such a social scientific imagination underlines what natural scientists do in their everyday experimental, laboratory work: They create new associations, references and functions. According to the Belgian philosopher Isabelle Stengers (2000: 92–7), science constructs our history to such an extent, that it is impossible for us to think that some facts could be otherwise. Science constitutes a collective as much as facts. This is one of the most striking

characteristics of science, which consistently is made invisible: the intermingling and entanglement between the world of things and the world of humans, between facts and history. Or rather, their mutual constitution: If a collective creates a fact, the fact is in its turn also creating a collective:

Scientists recognize 'nature' as their sole 'authority', as the phenomenon they are concerned with, but they know that the possibility for this 'authority' to create authority is not a given. It is up to them to constitute nature as an authority. (Stengers, 2000: 93)

A brief example may illustrate my point: Nanoscientists try to imitate the agency of dangerous or even life-threatening viruses in order to fight tumours and immunize the healthy cells from future malign processes. The idea is that the artificial virus produces the fiction of being a dangerous virus and the tumour cell believes this fiction. In effect, the tumour cell destroys itself as a matter of protection against the fictive infection. The invention of artificial viruses is thought to multiply possibilities of cure and protection (Wagner, 2007). It is a scientific way to tackle bodily events and their malign effects by creating functions, references and new alliances between different entities. In this way the experimental setting of the lab is letting 'nature speak'. 'Nature speaks' outside the lab when new technologies and drugs are developed and finally appear in clinical settings to possibly cure or appease illnesses. Obviously, such agents are not neutral and their 'nature' is a highly artificial construct that acts as if it were nature. Subsequently, the construction of facts and collectives is a highly normative one: new realities emerge, bodies are effectuated and communicated, new practices, norms and standards as well as unexpected side effects, risks or damages may occur. Insofar, scientific work is a risky affair since it not only tries to gain knowledge concerning events but also produces new ones. With the experiment, science creates an event and its effects employ a new way of arguing, a novel way of making facts themselves act. Consequently, scientific discussions among humans (and the way we deal with these outside the lab) will not be solved by humans alone, but the discussion will be joined by non-human entities which will be recognised as 'authorised' to settle a debate, that is, 'to "make a difference" between the different possible arguments of humans' (Stengers, 2000: 80).

This means that nature, science and technology are constitutive (and always also uncertain) parts of our embodied human social lives. A scientific proposition presents us with a fact, a function, a technology, or an artificial system that aspire to be recognised as members of our collective. Once constructed and accepted as a fact, our collective changes and brings into being 'state(s) of the world' (Callon, Lascoumes and Barthe, 2009: 20). A new collective emerges, of which the new techno-scientific object is a member, and its introduction re-distributes identities and roles of the collective. Stengers (2000) rightly points out that the scientific event (as any other event) makes

a difference, but it does not signify it; one may acknowledge the creation of new modes of reason and work, without allowing this recognition to disempower us to imagine it differently. Hence, we are still free to negotiate, to discuss and be imaginative about what consequences in our lives the event should have. Obviously, cosmopolitical events become most problematic and dangerous matter of facts if their effects 1) do not multiply but restrict, exclude or endanger relevant actors and 2) constrain or erase the possibility of alternative politics of imagination. This begins with instrumentalizing experimental sciences as the gold standard to illustrate the discovery of the 'truth of facts', or that of a 'rational truth' (Stengers, 1997, 2000). Such a technocratic strategy subsequently dismisses the situated and relational character of experimental science that brought these facts/technologies into being in the first place. To conflate the complexity and uncertain practices of 'science in the making' (Latour, 1987) with the discovery of mere matter of facts is most problematic. It is irresponsible if we deal with technologies such as nuclear technology that may affect unmanageable adverse effects. Obviously, the capitalist short-term thinking of risk-calculation and its desire for profit play a main role in generating and fostering such irresponsibility. Once the implementation of technologies is driven by economic rationality and once technologies articulate nothing but the technocratic ratio – and this is precisely what governs the rhetoric of 'low probabilities' and 'residual risks' - we are prone to catastrophes. Experiencing the Japanese events and the related Fukushima crisis we become aware of what it means if we do not respect the eventful, relational and heterogeneous character of a technoscientifically mediated social cosmos. We mistake uncertain 'things' as given matter of facts with controllable risk-effects. In the moment this rationality of codifying uncertain things as controllable risk-technologies breaks down, we are forced to accept the life-threatening effects of failing techno-scientific inventions without having the possibility to resist them. As already indicated, such a self-imposed lack of resistance is closely related to the problem of asocialization (homogenisation), which disregards the social cosmos of creative scientific work composed by heterogeneous relations (natural, artificial and human). There is nothing creative – neither on the human or non-human side – if failing technologies endanger our common future. If supposedly 'creative', 'low probability of high risk' technologies exclude the creativity to deal properly and imaginatively with possible negative or adverse consequences, then they are *not* creative but scientifically bad objects and asocial. In that sense, Fukushima was foreseeable since it documents the persisting indifference to the very uncertainties and complexities of heterogeneous relations, which cannot be governed merely by human rational risk calculation. This is precisely what the sociological attentive eye on Dingpolitik reveals: To be called *social*, relations have to respect the eventful, relational and heterogeneous complexity of human-nonhuman associations. To outline this point I will refer to the Fukushima accident and its effects and I will try to map the specificities and ambivalences of cosmopolitical events.

Caught by the event

At a moment's notice, Fukushima,8 a city/prefecture formerly unknown to most of us, is turning into a second Chernobyl, a place we all know. 25 years ago, the worst-case scenario of an uncontrolled nuclear fusion happened. Exposed to poisonous radiation many people (and animals) were killed and landscapes turned into contaminated desserts. Still today, humans suffer psychologically and socially or become bodily ill from Chernobyl effects (Petryna, 2002). The Bavarian forests of my home country Germany continue to be strongly contaminated. Boars living there are highly radioactive since they eat specific mushrooms; the next 300 years they remain contaminated (http:// www.br-online.de/aktuell/bayern-25-jahre-nach-tschernobyl). The Chernobyl event brought about the terrible experience of a meltdown. We also gained robust knowledge about the possible dramatic and long-term effects nuclear power plant accidents produce. Still, Fukushima names the same fiasco of mistaking the precariousness of human and non-human relations for being a residual risk that can be dismissed. Thereby, the uncertainty, disputed and the hazardous nature of possible risks that define 'matters of concern' such as nuclear energy have been transformed into safe 'matter of facts' with a negligible residual risk. Fukushima names the breakdown of technologically (and economically) mediated politics of imagination – driven by the rationality of low probability high risk - that tried to frame the future events of that technology as fixable matter of facts: calculable, predictable and secure. The consequences of this failure *realise* the probability and risks involved. We globally witness the transformation of a supposedly low risk technology into a catastrophic scenario with adverse effects. In effect, the practices that have been institutionalizing the social normalcy of residual risks come to their limits. The innovation of knowledge practices that have led to the creativity of technological imagination is overshadowed and corrupted by ignorance; it is replaced by an uttermost uncertain, endangered and angst-ridden future where radioactive actors might do their politics for which we have no human sensory, no natural protection, no social modes of resistance. We fear being harmfully exposed to and enacted by the non-sensorial. Consequently, the region around Fukushima has been widely evacuated and appears socially depleted. There is no dwelling possible and people are utterly disrupted and cut off from practices of 'keeping' relations (cf. Latimer and Munro, 2009). The event and its unruly effects affect people all over the world. In Germany, seemingly far away from any possible exposure, the Geiger-Mueller counters were sold out (http:// www.welt.de/; accessed 17/03/2011). In USA one had to register on a waiting list for iodine tablets although experts kept on assuring that there is no need to do so (http://www.cbs47.tv/; accessed 15/03/2011). These reactions show the worries about the bio-political agency of non-human others (clouds of radiation) that appear highly indifferent to territorial borders and national frames of references. Like for many other countries, the Japanese high-risk nuclear technologies are systems that generate and intermediate social normalcy.

As intermediaries these technologies transport social normalcy and related politics of imagining it. With the failure of the Fukushima plant these intermediaries of social normalcy turned into mediators. As mediators they transform social normalcy and become political actors that put into question given politics of imagining social reality. The scale of action and its effects has changed as well. As intermediaries, the technology system was thought to stabilize local and regional networks. As mediators, these failing technologies produce trans-local adverse effects. The latter may put into question the very normalcy of social orderings far beyond the local network itself.¹¹ The Japanese events realise what Ulrich Beck calls 'second order risks' (Beck, 1992, 2009). Second order risks transcend the idea of risks as mathematically, economically and scientifically calculable or economically insurable (first order risks); such risks extend beyond local, regional or national affairs. Moreover, they blur the differentiation of risk producer, risk decider and those affected by risks. Such 'systemic risks' and their effects (Jovanovic, Renn and Slavi, 2010) originate – as a 'normal' matter of fact – from complex assemblages of human and non-human relations (Perrow, 1999; Urry, 2000). These assemblages protract widely into an unknown future where they may relate with other risks and risk effects. The synergies of systemic risks are highly difficult to deal with or to be compensated by common modes of institutionalized practices - like the insurance principle (economics), the nation-state (politics), or expert knowledge (science). With Fukushima we realize that the politics of low probabilities and the calculation of related risks failed.

This failure turns our attention to the production of and dealings with highly politicized, globalizing second order risks and risk effects. Protests are forming worldwide against the politics of imagination which has been in favour of nuclear power. The German government has installed ad hoc a three-month moratorium¹² concerning the running period of Germany's nuclear plants. The moratorium was set up by the German chancellor Merkel (a studied physicist) in a TV interview, who noted how Fukushima differs from the Chernobyl in one most important point. Unlike Chernobyl, the Fukushima event was not caused by human failure but affected by natural forces. Thus, the German government knows perfectly well that the realization of residual risks brings to the fore the uncertain social and political actors involved. In only a three-day period, we could face a change concerning the political understanding of nuclear energy. It transformed from being a transitional but acquiescent technology that knows no efficient alternatives, into a high-risk technology that is considered a discontinued model. In effect, half of Germany's nuclear plants' power production has been rapidly slowed down. The Bavarian President has argued that 'the residual risk' of a plane crashing into one of our nuclear plants has now turned into a 'real possibility' (TV Interview). Consequently, he intends to switch off the Bavarian 'Isar I', which is one of the oldest German nuclear power plants. Meanwhile, the situation in Fukushima was seen as 'out of control' and Yukiya Amano, Director General of the 'International Atomic Energy Agency', described the situation as 'very serious' (http://www.iaea.org/; accessed 16/03/2011). Officials moved up the INES (The International Nuclear and Radiological Event Scale) from '4' to '5'. The scale switch indicates 'that the severity of an event is about ten times greater for each increase in level on the scale' (http://www.iaea.org/Publications/Factsheets/English/ines.pdf). This also meant that the Fukushima 'incident' has turned into an 'accident': A 'serious incident' of scale 4 refers to an 'accident with local consequences' and an 'accident' of scale 5 names 'accidents with wider consequences' (ibid.). Later, the scale has raised from '6' (a 'serious accident') to '7' which names a 'major accident' with 'major release of radioactive material' and 'significant effects on health and the environment' (http://www.allvoices.com/; accessed 11/04/2001).

Following Elizabeth Grosz the happenings in Fukushima name the imprint of an event and its consequences:

Time is that which disappears as such in order to make (...) events possible. (...) it is the excess, superfluity, of causes, the profusion of causes, which no longer produces singular or even complex effects but generates events, which have a temporal continuity quite separate from that of their 'causes'. (Grosz, 1999: 1)

It is the 'vague ontology' that names the specific reality of emergency situations such as Fukushima: We all know that something is happening that may provoke a catastrophe, but we don't know what is happening in detail and we seem(ed) to be in no good position to control or govern the situation. It is both the immateriality, ie the intensity of time (time pressure, lack of time) and the materiality of time (technologically mediated time provoked by technological failure), which thoroughly interrogate institutionalized social practices that appear as the backbone of enduring 'societies'. 13 Events like Fukushima bring to the fore highly non-institutionalized, experimental forms of action precisely since there are no institutionalized settings available that would be capable to relate the past, present and future in a way that things can be anticipated, accounted for, believed in. Institutions, to be sure, are installed to reduce the complexity and contingency of future events. Through institutions we are able to count on the present to deal with the future. Thereby, the contingency of future events gains a sense of certainty and security; through institutions we create options for planning, anticipating, endurance and stability. As we can see with Fukushima, this includes the institutionalization of technologies, which – in a worst-case scenario – cannot be dealt with anymore by given institutionalized means. We humans are not able to (inter-)mediate these human/non-human relations in a safe, sustainable and social way. Rather, the failing technology *objects to* our human partaking and endangers human well-being and relevant social relations. Affected by the event, the nuclear plant, which was meant as a good signature of technocratically mediated politics of low probability high risks, has changed into an event with

adverse effects. The technological system transformed from being a reliable social associate into a rather aggressive political actor that disrupts, questions, alters and even destroys given modes of orderings. In effect, the unknown, insecure und uncertain future rules our present enacting the risk of a catastrophe. We are caught within and by the event of the no longer and not yet. Even eight weeks after the event, nobody knows if the nuclear plant (or some of its reactors) may burst soon or if the ad hoc experiments (cooling attempts, regaining electric energy) will succeed. What makes Fukushima such a dramatic experience is that we are confronted with a monstrous technological agent that is highly indifferent to our human concerns, engineering and politics. With Fukushima we experience the thorough questioning of the normative imaginary of cosmopolitics as a mere human affair. Cosmopolitical events like Fukushima interrogate the standards set by the human politics of technologically mediated imagination that fix the 'cosmos' and 'politics' as a given. It shows most dramatically the contingent and multiple relation between 'cosmos' and 'politics', as Bruno Latour stresses:

The presence of *cosmos* in *cosmopolitics* resists the tendency of *politics* to mean the give-and-take in an exclusive human club. The presence of *politics* in *cosmopolitics* resists the tendency of *cosmos* to mean a finite list of entities that must be taken into account. (Latour, 2004: 454)

Obviously, cosmopolitics has multiple facets – good and bad ones. Fukushima performs a bad one inasmuch as it endangers the future of related entities – human and non-human alike. What makes us moderns so successful is to extend agency to technologies (Latour, 1993). We know about the risks this may entail, but we often underestimate the (possible) agency of all the related non-human others. In the case of Fukushima, nuclear plant does what it does, but not in the way it was imagined by us, ie to sustain a complex techno-rationally mediated network. Rather, the earthquake and the tsunami event re-assembled the Fukushima network in a most dramatic way, so much so that the supposedly creative but also most precarious connectivity between human and non-human relations broke down. Through the event, we humans are excluded from our own technologically mediated world. We witness highly 'asymmetrical power relations' (Latimer, 2004) where failing technologies 'command' (ibid.) their self-referential material effects. Subsequently, we humans don't play a symmetrical, democratic part anymore. Rather we follow the rules of a damaged technology. The technological and economically mediated politics of low probabilities fall short to be a good 'imitation of the future'. A good imitation of the future would mean that the human/non-human network affects the future but nevertheless sustains that future insofar as it offers - for the entities involved - a future too. The Fukushima events show that the affected are neither able to live well, nor do they remain proper social and political actors. Those affected humans (next to animals and plants) are enacted as rather poor agentic members of a

self-manufactured network. They have no good ability to object to the future provided by the failed reality of the Fukushima system. The latter radically narrowed down the options to deal *collectively* (ie cosmopolitically) with our 'manufactured risks' (cf. Beck, 1992). With Fukushima we face the limits of the humanist rhetoric of self-manufactured risks and their calculability to deal with the social uncertainties of techno-scientific innovations, systems and objects.

Re-Imagining the social

So far I have tried to tackle the importance of cosmopolitical events and the matters of concern these events bring to the fore. Fukushima has been an actual empirical occurrence of such a cosmopolitical event and related effects. The specificities of the Japanese events unravel questions and problems which unfold a most general concern of the politics of sociological imagination; the social, I agree with Michel Callon and others that we should be careful that the discussion of events is not about dissecting rare cases of science and technology and 'treating each issue separately, as if it is always a case of exceptional events' (Callon, Lascoumes and Barthe, 2009: 9). As I have tried to outline, though, it is precisely the exceptional event that allows the tracing of taken for granted, normal, highly institutionalized and often black-boxed modes of social ordering. The relevance of cosmopolitical events is measured by the way they introduce and affect differences - both in the way they disrupt, question and alter social relations and in the way we social scientists and others observe these processes of transformation. Next to the dramatic adverse effects, the Japanese events also initiated a worldwide debate on energy politics and 'possible states of the world' (Callon/ Lascoumes and Barthe, 2009: 20). Protests, reflections and discussions concerning the future of (nuclear) energy are happening at different places, by and between a diversity of discussants. Another example from Germany may illustrate my point: Without trying to evaluate 'ethic committees' in medias res, it is worth noting that in Germany, next to varied public protests and other political activities, an ethic committee has been founded that is meant to discuss the future of nuclear energy. An ethic committee is a common tool for consensus- and expert-oriented politics. What happened to be different this time was, that the meetings have been broadcasted live by television. At the same time, sites of public viewing have been created to follow the daylong discussions. While public viewings showed that questions concerning nuclear energy (on a national and trans-national level) were critically discussed, they also debated the political role of 'ethic committees', including the perspectives articulated, and who is part of the committee, who excluded. So what we can see is a double process of politicization: 1) The politicization of the social relevance of technology and science, and 2) the politicization of the different ways politics is performed. To be sure, it remains rather uncertain what will be the future effects of Fukushima, for German energy politics

for example. What appears observable, though, is a multiplication of actors. voices, assessments and political practices involved that render nuclear energy as a disputed matter of concern. Thus, by corrupting the 'normal', the effects of exceptional cosmopolitical events like Fukushima uncover the complexity of the 'social normal' as a disputed matter of concern. These events question, disrupt, alter, or even destroy given matter of facts. They bring to the fore the multiple and collective dimension of the social, which is essentially an uncertain process of associating humans and non-humans (cf. Latour, 2005a). Moreover, diverse political actors – again humans and non-humans – which have not been considered to be true or relevant political actors before the event, have and/or gain significant voices after the event. The history of nuclear energy (eg in Germany and even more so in France) shows that nuclear energy was seen as a technical issue of scientific experts and not a collective matter of concern, ie a social problem (cf. Callon, Lascoumes and Barthe, 2009). Such a technocratization of scientific innovations and their effects is closely linked and stabilized by a political 'rational discourse' that was thought as a deliberative mode of discourse to do justice to the demands of techno-scientific 'matter of facts'. As we know, the rationalization of politics also meant an aggressive mistrust concerning all other political voices (lay and ordinary citizens, NGO's) which where labelled as irrelevant, irrational and being nihilistic to the technological future (ibid.). The technocratic and rationalist discourse goes hand in hand with an economisation of new techno-scientific innovations. Economists have to presuppose reliable and objective matter of facts to make risky calculations, good trade and better profit; they dislike uncertainties and with it those actors and agencies which turn matters of facts into matters of concern (ibid. 228). Thus, the 'democracy' of techno-scientific innovations of eg nuclear power refers to the co-existence of technocratization, rationalization and economization. They all support as well as foster a discourse that is meant to meet the requirements of techno-rational matter of facts. What is striking about this perspective is that the downplay and exclusion of the social and political dimension only plays a role in order to stress the very social and political (or even cosmopolitical¹⁴) importance for our collective future. Nuclear energy was/is meant to be a central actor that represents the safeguard of a future-oriented, techno-scientific mediated social and politics. Thus, it is the matter of facts of technocratic rationalist and economists that frame the social and political relevance of nuclear energy, which is meant to secure a safe and prosperous collective life. Thereby, the uncertainties of associating humans and non-humans as well as the possibility of political actors other than techno-rational experts have been excluded or downsized to low probabilities of risk! To be sure, since the 1950s nuclear energy has become more and more 'socialized' and 'politicised'. But despite the social and political 'proliferation' (Strathern, 1999) within Western countries, nuclear energy remained a strong intermediary between technocratization, rationalization and economization. Till today, for many countries nuclear energy plays the

role model of a good modern mode of future-oriented politics of imagination that turns social uncertainties and political dissent into pre-given facts of calculable and manageable risks. That these most 'safe' technologies are continuingly producing more or less dangerous and non-manageable accidents that caused and are causing sufferings and deaths, that nuclear testing has destroyed many regions all over the world, that we produce an enormous amount of nuclear waste, is accepted as part of such a 'good' future of the politics concerning the politics of risk calculation.

However, as already indicated, the effects of the Japanese events tell a different story. The effects of cosmopolitical events like Fukushima – mediated by global broadcast networks in real time – show, that it is the multiplicity and in consequence the uncertain, controversial and disputed socialness and not its techno-economic calculability that defines our human/non-human collectives. We realize how 'risks' may turn into catastrophes, affect bodily and mental suffering, kill and endanger the future of many. And with it, the normality of the 'non-normal', ie the Other, the non-human, the normal citizen, bodies and emotions, non-knowledge, ignorance and unawareness re-gain a vital part in human/non-human relations and the way these relations associate and get politicized. The all-too rational rhetoric of low probability risks meets a multiplicity of political actors that were thought to be safely excluded by the triad of 1) techno-scientific objectivity and expertise, 2) the rationality politics that intermediates the demands of facts, and 3) the economy that pays them (and only them) and secures long-term profits.

Beyond cosmopolitanism

With Fukushima, the Kantian idea of cosmopolitanism as a process of civilizing the necessities and rawness of nature with the nature of human rationality comes to its limits. Kant's cosmopolitanism (and his understanding of the social) is very much based on a model of science and its laws which are (inter-)mediated by and for rational humans. Kant says:

... a light broke upon all natural philosophers. They learned that reason only perceives that which it produces after its own design; that it must not be content to follow, as it were, in the leading-strings of nature, but must proceed in advance with principles of judgement according to unvarying laws, and compel nature to reply its questions (...) It is only the principles of reason which can give to concordant phenomena the validity of laws, and it is only when experiment is directed by these rational principles that it can have any real utility. Reason must approach nature with the view, indeed, of receiving information from it, not, however, in the character of a pupil, who listens to all that his master chooses to tell him, but in that of a judge [bestallter Richter], who compels the witnesses to reply to those questions which he himself thinks fit to propose. (KdrV 1781: BXII-III, Preface to the second edition)

With Fukushima we see how the judges of rationalism (be they scientific technocrats, matter of fact politicians or myopic economists) are forced to experience the fallacy of misplaced rational facts. They conflate the social and political mediation of matter of concerns with the intermediation, symbolic discussion, calculation and deliberation of matter of facts. Kant's description of human rationality, science and technology equates the highly situated character of nature as it appears in an artificial setting of an experiment (and its related calculations, dealings with uncertainties) with that of the general, outer-lab world. In consequence, it not only takes the uncertainties of 'nature' as being calculable, but also renders them as human rational matter of facts. In her alternative reading of experimental science, Isabelle Stengers shows that the creation of the experimental device does not fix matter of fact once we treat it rationally – as Kant would have it. Rather, it gives birth to a new relation of forces where humans and non-humans, knowledge and non-knowledge are equal parts:

The art of the experimenter is in league with power: the invention of the power to confer on things the power of conferring on the experimenter the power of speaking in their name. (Stengers, 1997: 165, original emphasis)

Obviously, for social sciences the diagnosed symmetry between and the co-constituency of human and non-human actors are vital in understanding the social and political dimension(s) of science and technology. The notion of 'actor-network' conceived by scholars from Science and Technology Studies (STS) seems to be a fruitful notion since it tries to capture precisely the idea that the reality of entities, human and non-human alike, including their abilities and disabilities, are the effect of uncertain processes of associated/ing heterogeneous entities (Callon, 1986, 1991; Latour, 2005a; Law and Hassard, 1999). Following from that, agency is not a human given. Rational facts or low probability and calculable risks are possible outcomes of controversial processes, ie relational effects and no givens. Scholars of Actor-Network-Theory (ANT) call this process of eventful and thus uncertain association, mediation or translation (ibid.). Only through translation does the composite of our world come into being, endures and/or changes. Actors can be understood as mediated mediators, and not substances, essences or matter of facts. As we have seen with Fukushima, the elements involved may differ in the ways they work as associates: they can be either 'intermediaries' or 'mediators'. An intermediary 'transports meaning or force without transformation', whereas mediators 'transform, translate, distort, and modify the meaning or the elements they are supposed to carry' (Latour, 2005a: 39ff). An actornetwork, then, addresses fragile sociality as a process of association that transports and transforms reality. It also makes us aware that we live "in" extension' (Latimer, 2000; Latimer, 2004; Latimer and Birke, 2009; Latimer and Munro, 2009; Latimer and Schillmeier, 2009; Munro, 1996; Munro, 2005; Strathern, 1993) with other humans as well as with non-humans (artefacts and natural environment). These extensions may intermediate (transport) but also mediate (transform) time and space. What we could see with the effects of cosmopolitical events such as Fukushima: is that they question the idea of technologies as mere intermediaries of human rationality and highlight the mediation of social relations by non-human actors. Large scale and high-risk technologies like Fukushima are most important actors that protract widely into the future. Despite being treated as mere matter of facts, Fukushima shows their vulnerability. Imagined as a 'good' transporter it turned into a 'bad' mediator. Since the events of the earthquake and the related Tsunami, the Fukushima plant maps its own reality without us humans to be able to trace it in the way that we would be able to become 'equal' parts of the network. Thus, nobody (no technocratic scientist, no rationalist politician, no economical risk taker) is able tame or govern Fukushima with the institutionalized practices that made it real in the first place: The nuclear power plant re-gains social reality by producing adverse future effects. These effects realize indisputable matter of facts which cannot merely be discussed away by rational actors. Thus, we are enacted as rather poor experimenters 'in contact with the real' (Deleuze and Guattari, [1980] 1987: 13), precisely because we took the nuclear plants as calculable and safe 'matter of facts' and excluded the social relevance and political power of non-human actors. Actor-networks like Fukushima which may turn into catastrophes, are not only about the fragile connectivity of human and nonhuman agency, but gain their own reality by cutting off human agency from a network that is co-initiated by and meant for humans. Actor-networks come into being by a strange double bind of attachment and detachment. The reality of Fukushima is as much the effect of connecting human and nonhuman relations as much as it is about being detaching and endangering human and non-human networks.

Conclusion

With Erving Goffman, we may say (in an all too real expression): The Fukushima 'Umwelt becomes hot' (Goffman, 1971: 328, original emphasis) for humans and non-humans alike. As Goffman rightly argues, hot Umwelten not only affect our 'safety', but our global 'situation' appears 'deeply unsettling' (ibid. 329) and utterly endangered due to 'the physical objects and events around' the human being (ibid. 328). It would be missing the point, to separate off the natural causes of the event from its societal effects that will govern them. The unsettling events in Japan make us realise that the idea of cosmopolitanism is neither a human only affair as Kant would have it, nor does it sustain a scientific model that purifies itself from social and political practices by pointing out scientific matter of facts that speak for themselves as 'rational truths'. Consequently, the humanist dream of a 'world society' governed by techno-rational procedures turn into destructive effects of a 'world experiment

society'. The latter not only lacks laboratory control of scientific experiments but also multiplies the power of non-human beings *to object to* institutionalized forms of human rational action. Thus, the politics of imagining 'matter of fact'-realities, which were thought to generate and sustain social normalcy, multiply prospects of catastrophes. At the same time controversies arise that dispute given authorities and power relations that defined atomic energy as a low risk practice. It generates novel politics of imagination that try to offer alternative models.

With Fukushima societal processes come into view that demand to include (and not exclude) the Other. Reflecting these dynamics, it visualizes the importance of the empirical and conceptual figure the 'non-human/non-social Other'. It demands a cosmopolitical view that unfolds the logic of 'inclusive differences' that addresses the need of inclusion and not exclusion of the cultural and non-human other (Beck, 2009; Latour, 1993, 2004; Schillmeier, 2010: Stengers, 2010). In effect, it draws our attention to the eventful character of the social. Experiencing Fukushima, the unbuttoning of normalcy is very much about the uncertainty and precariousness of rationalized politics of imagination, the multiplicity of its actors, its failures as well as the possibility of offering alternatives by novel actors. Such a cosmopolitical view neither exhausts in consulting the clever scientist alone, nor does it have to relate to the conventions of consensus-oriented politics or stick to the economies of risk calculation. Quite on the contrary, good science means to multiply actors and related politics of imagination that may question, disrupt and alter the common link between scientific, political and economical modes of observation. It extends the history of sociological imagination to the social and political relevance of the non-human. The cosmopolitical view will enrich the process of unfolding research agendas and conceptual space for those that have been excluded, marginalized, forgotten, unconsidered, or disfigured in the process of normalizing social and political action. The analysis of cosmopolitical events offers one possible way to do so.

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Notes

- 1 'The word black box is used by cyberneticans whenever a piece of machinery or a set of commands is too complex. In its place they draw a little box about which they need to know nothing but its input and output' (Latour, 1987: 2–3). In ANT the notion of black box is used to refer to purification processes that translate a controversial object into an undisputed fact. 'But the only way for new undisputed facts to be fed back, the only way for a whole stable field of science to be mobilised in other fields, is for it to turn into an automaton, a machine, one more piece of equipment in a lab, another black box' (Latour, 1987: 131).
- 2 Doing/Undoing is a common notion used by ethnomethodologists, interactionists and eg prominently within gender studies. 'Doing' refers to situated practices that produce, reproduce, and change social order and its differences and distinctions.'Undoing', as it is used

- here, refers to a process of situational neutralization of or abstraction from the relevant distinctions/differences in place (eg gender-difference).
- 3 Thus, a thing does not name a given matter of fact, but the 'contestable zone of controversy [strittiger Streitbezirk]' (Heidegger, 1994: 260f).
- 4 Thus, the notion of 'sociological realism' is not meant as a re-animation of the difference between facts and values or nature and culture. Rather, it denotes the concurrence of the reality of a thing and its constructedness (cf. Latour, 2005a: 88pp.).
- 5 This does not mean to underrate that dementia may gain global importance in ageing societies of the 21st century. It has a lot to commend it.
- 6 Such an account raises ethical questions over the symmetry of voices of the human and the inanimate non-human, which unfortunately cannot be addressed here (see amongst many others Casper, 1994).
- 7 This point has been made most precisely by Deleuze and Guattari (1994) and Stengers (1997, 2000, 2008, 2010).
- 8 We also perceive an odd, media mediated hierarchy between the different places of destruction in Japan. Thereby the *risk* of a catastrophe in Fukushima seems to gain more comments, disputes, TV presence, pictures than the apocalyptic effects of the catastrophe that already have taken place. In that sense, this paper is no exception.
- 9 On a seminal discussion of the difference between 'matters of fact' and 'matters of concern', see Latour (2005a: 87pp.). See also Stengers (2000: 99pp.).
- 10 In 'Reassembling the Social', Bruno Latour outlines the difference between 'intermediaries' and 'mediators' (Cf. Latour, 2005a). See also below.
- 11 Still, the decision for or against nuclear energy is a national question. For France, Belgium, Poland, the Czech Republic and many other countries, nuclear energy appears as safe despite the experience of Chernobyl and now Fukushima. Such a perception reveals the tight attachment of politics and specific forms of science that are meant to produce 'matter of facts' which remain stable despite unforeseeable future effects.
- 12 To be sure, for the conservative German government the moratorium does not mean an immediate nuclear phase-out.
- 13 Following Durkheim's legacy, classical sociology is very much a science of institutions. Institutions are often conflated with the realm of 'the social'/'society' as a sphere of its own that differs from that of 'nature'. The cosmopolitics of Fukushima not only puts into question institutional settings but also research agendas that equate institutions with 'the social' or 'society'. It demands a different politics of sociological imagination that addresses the eventful character of the social that mediates human/nonhuman relations (Latour, 2005a and 2005b; Schillmeier, 2011; Schillmeier and Pohler, 2011).
- 14 Here, 'cosmopolitical' refers to the global dimension of politics as well as the idea that cosmopolitical agency as outlined most prominently by Immanuel Kant is the mere property of rational human beings (Schillmeier, 2011).

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