RESEARCH NOTE

Climate social science—Any future for 'blue sky research' in management studies?

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Summary   The environmental humanities call for post-disciplinary approaches to meet the vexing problem of climate change. However, scholars have not scrutinised how management and organisation studies (MOS) could contribute to such an endeavour. This research note explores common surfaces of contact between the natural and social sciences, with the goal of unravelling the legitimate positions to speak from about climate change. The findings suggest that scholars in MOS are exposed to ecological reasoning, which undergirds underdog heroism, disciplinary confusion and a debasement of political subjectivity. As a counter strategy, I suggest that we affirm a 'blue-sky research' approach that would support alternative research paths and a more traditional will to know—to advance 'climate social science'.

'*Blue days, all of them gone
Nothing but blue skies from now on
Blue skies smiling at me
Nothing but blue skies do I see*'
(Lyrics by Irving Berlin, 1926)

Introduction

Scandinavia is one of the regions where front-line science on climate change is conducted. An ongoing topic for discussion is how this knowledge production could be extended to other fields, since solutions to potential disasters must be designed with the help of knowledge about the human. It has accordingly been eagerly suggested that environmental humanities is

'one of the most dynamic fields in the human sciences' that could help meet global challenges (KTH, 2013). The World Social Science Report (ISSC, 2013), moreover, 'issues an urgent call to action to the international social science community to collaborate more effectively with each other'. Social scientists are challenged to transform social science and become 'bolder', 'better' and 'bigger' by working both with colleagues from other scientific fields and with the users of research to 'deliver solutions-oriented knowledge on today's most pressing environmental problems'. By extension, this also means that social science has to become 'different'—for example, 'in the way it thinks about and does research that helps meet the vexing sustainability challenges faced today'. The World Social Science Report calls for post-disciplinary approaches 'informed by science' to accomplish this enlargement and application of human and social knowledge (ibid).

A similar discussion about bridging the natural sciences and the humanities raged in the 1950s. In his 1959 Rede Lecture 'The Two Cultures' (Snow, 1959), the scientist and novelist Charles Percy Snow articulated his worries about a polarisation of the literary 'intellectuals' and the physical

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scientists, who were not considered as 'intellectual'. He strongly argued for fewer privileges for the humanities and increased grounding of social and political solutions in the natural sciences. Shifting relations between 'nature' and philosophy are of course ancient, and have now reached a point where we see cross-sector collaborations between academia, business and public authorities, in an enlargement of natural scientific reasoning offered to the citizens. There have, for example, been calls for democratic participation and inclusion of us as 'citizen scientists' (Justmeans. Business. Better, 2010); these calls have invited citizens to send in reports about invasive species, that is, weeds of foreign origin. Management of the biosphere is thus pursued with the aid of participative knowledge tools (see further Marres, 2012). This is a testament to the well-known shift towards the applicability and co-production of science. For a long time, the modern scientific endeavour of creating knowledge was conceived as an end in itself — as Hannah Arendt put it, 'the scientist made only in order to know' — though the scientist's production often resulted in applicable by-products (Arendt, 1958/1998, 297). Since we now see efforts to invite citizens in the co-production of scientific knowledge, it is difficult to determine what the means and ends are. Science may have become a means, treated as a mere by-product, whilst the production of applicable technologies and the shaping of participative citizens, have become the new end.

A similar hunt for the applicability and co-production of knowledge to achieve a change of the human, or the 'system' we are assumed to live in, is visible in social science perspectives on climate change (examples in Barry, 2012; Dryzek, Norgaard, & Schlosberg, 2011; Shove & Spurling, 2013; Urry, 2011). Since climate change is coupled to acute changes around the world, researchers in this field are seldom asked, 'So what?' The answer to the 'so-what question' is already given — potential disasters — and has been applied especially to fashion people living in the global South as vulnerable subjects (Evans & Reid, 2014). Because of this state of alarm and articulation of emergency, funding is mainly offered for inter-, cross-, trans- and post-disciplinary approaches, and sometimes even for post-doctoral 'discipline hopping' to ensure that social scientists 'gain natural science expertise' (NERC, 2014). Climate change, when taken as a problem or crisis to address as a challenge, is thus understood to demand a kind of knowledge that better connects the human (social sciences/humanities) with nature (natural sciences/climate science), much alike Charles Percy Snow's wishes.

The objective of this research note is to scrutinise the ways that this ambitious knowledge formation about climate change poses limits for social science on climate change. Focusing on management and organisation, I explore the *surfaces of contact* between the basic assumptions made within the natural and social sciences to show how climate science affects our research possibilities. I begin by describing and problematizing the legitimate positions from which it is currently possible to speak about climate change. I then turn to neighbouring fields to illustrate some alternative research positions and possibilities for future research. I conclude by outlining a constructive rupture to counter the taken for granted wish for post-disciplinarity and its applicability: I offer a 'blue-sky research' approach for a

'climate social science'. This approach, I argue, will threaten neither the climate itself nor the scientific study of it.

Legitimate positions and surfaces of contact

In this section, I describe several positions from which researchers commonly speak about climate change, with an emphasis on the specialist vocabularies shared by researchers in the natural sciences and MOS. I address climate materiality, changeability, uncertainty, complexity and resilience, although several other legitimate positions exist.

Climate materiality

Many approaches to climate change take their point of departure from discourses on materiality, that is, descriptions of physical conditions in the atmosphere and their effects on the biosphere, established by organisations such as the IPCC (Intergovernmental Panel on Climate Change). The reader may be introduced to the subject with the help of scientific facts about the rising global temperature and the potential natural and social disaster at hand. Climate change is made real and relevant through science-based evidence, as exemplified by how facts are presented in *Nature*:

'There is now ample evidence of the ecological impacts of recent climate change, from polar terrestrial to tropical marine environments. The responses of both flora and fauna span an array of ecosystems and organizational hierarchies, from the species to the community levels.' (Walther et al., 2002)

There is no direct link to social science in the quote; the 'organisational hierarchies' and the 'community' are strictly coupled to ecology. Hence, we have in this quote no direct surface of contact between the natural sciences and the social sciences. Nevertheless, there is an indirect surface of contact in the 'organizational hierarchies' which are said to exist for flora and fauna. Going further back in time, Czarniawska explores the historical link of biology and ecology with management and organisation. She shows that new theories in biology and ecology have transformed the possibilities for discussing 'environment' in relation to 'organisms' and 'organisations' (Czarniawska, 2013). The intermingling of ecological systems theory with social systems theory is fundamental here. Inspiration from ecology has also been accentuated with the recent embrace of 'complexity' in organisation and management studies (e.g. see Stowell & Welch, 2012; Tsoukas & Dooley, 2011). Climate research and MOS thus share an ecological specialist vocabulary.

Changeability

Changeability is another position from which it is possible to address the climate in relation to the human; this position emphasises vulnerability and adaptive capacity (Perdinan & Winkler, 2014). The climate variability position builds on assessments that construct the climate as a physical reality in constant change. In this case, we see a family resemblance to management and organisation studies' vocabularies of

how changes in the business environment affect organising and its hierarchies (e.g. see Valente, 2010). It is the continuous change that needs to be managed, because this change is considered to cause inevitable uncertainties. In this case, the surface of contact between the natural and social sciences is heavily influenced by several other analogous practices. Companies do, for example, apply Corporate Social Responsibility (CSR) when they seek to manage the behavioural uncertainty that is assumed to follow change in the social environment. They also appoint sustainability managers to handle the uncertainty said to result from environmental change. Noticeable here is the common denominator 'change'—in social and environmental change. Both the 'social environment' and the 'green environment' are attached to 'uncertainties' that just seem to keep emerging. In MOS, this attention to ongoing change has been extended to discussions about 'environmental complexity' (Child & Suzana, 2011).

Uncertainty

The concept of constant changeability often leads to an emphasis on how very certain researchers are about the uncertainty of our future. This position emphasises the uncertain assessments, the unknown consequences, the unknown development of the problem, and the undeterminable effects of climate change, all of which are indeed impossible to pin down. As the IPCC states, this uncertainty has an effect on decision making, which could 'benefit from taking uncertainties into account (e.g., multiple possible futures), [and] can also benefit from accounting for multiple world views' (IPCC WG II/WG III, 2012, 26). The unknown future thus provides a legitimate reason for investigating the issue further and suggesting necessary precautions. Hence, studies of climate change can speak from a position that highlights the unknown and risky future and the need to manage it, much like other forms of risk management (cf. Power, 2004, 2007). This process looks more like a never-ending search for more knowledge about the unknowable future than a direct application of (social) science.

Complexity

The need to manage and influence an uncertain future creates a twist: as the future is constructed as far too complex to handle, risk management is downplayed (Sterling, 2010). Present complexity is emphasised instead, and this emphasis is supported by statements about the many 'interrelationships' that characterise climate change (Perdinan & Winkler, 2014, 50). The IPCC, which is recognised as one of the main producers of knowledge about climate change (Gelbspan, 2005; Hoffman, 2011; Peake, 2005) also speaks about complexity. Early on, the IPCC stated that '[a] well-informed global population is essential for addressing and coping with an issue as complex as climate change' (IPCC WG III, 1990, xlviii), and that this global problem requires a global outreach and response (IPCC WG III, 1990). In addition, it is well established that 'impacts will be felt most severely in regions already under stress, mainly the developing countries' (Ibid:xxv). Natural scientists, policymakers, and social scientists alike come together under the umbrella of

complexity. Still, we do not know how scholars in management studies respond to and embrace this seemingly environmental humanitarian position that is asked to meet 'a complex set of challenges' and foster resilience by bridging the natural and social sciences (Henshaw, 2013, 137).

Resilience

Stockholm Resilience Centre has recently succeeded at broadening the investigation of future change by using more fine-tuned and extended scenarios (Folke, 2006; Gunderson & Folke, 2011; Rockström et al., 2009). This work provides us with 'resilience' as an ecology-inspired legitimate research position on climate change and the human therein. Now, it is not enough to focus on the changeability and uncertainty of human-induced climate change. Instead, we have a potential acceleration of the problem via climate-induced disasters, accompanied by a quest for disaster management. Insecurities are articulated with an emphasis on vulnerability, in the wake of which, adaptation and resilience are requested (Cannon & Müller-Mahn, 2010).

Attempts to form more coherent theories that bring together the natural sciences and the social sciences can also be found in early discussions of typologies of resilience for sustainability (Handmer & Dovers, 1996). Inspired by Holling, the ecologist, Handmer and Dovers (ibid) clarify the difference between ecological and human resilience: 'In the case of humans, the timing of change, of course, is such that biological evolution is not an option—sustainability must be achieved through rapid behavioural evolution' (ibid:487). The reliance on 'evolution' continues, as natural scientist Michael Raupach proposes a different approach to shaping human behaviour in response to climate change; he suggests that '[i]t may be useful to see these behaviours as guided by "narratives" (deep stories empowering actions) that are governed by the evolutionary mechanisms of diversification, selection and adaptation, akin to natural evolution' (Raupach, 2013). Raupach is not alone but serves as an example of how natural scientists use ecology-inspired vocabularies to merge their profession with a quest to manage cultural and social issues and behaviours. This creates an opportunity for a broader research agenda addressing resilience and vulnerability in the coupled carbon—climate — human system — an agenda that the Stockholm Resilience Centre promotes (e.g. see Wilkinson, 2012).

Legitimate positions in management and organisation studies

Whilst above examples of research positions showed how ecological reasoning is disseminated, the following section focuses on how management and organisation scholars address climate change as a problem to be solved. The question is thus what type of research positions the call for solutions generates?

Manage in accordance with nature

Following in the footsteps of Ecological Economics the field of management and organisation has adopted some of the research positions described above. In Ecological Economics,

the main task has been to make the human aware of how dependent she is on ecosystems. 'The rationale behind the use of the ecosystem service concept was mainly pedagogic, and it aimed to demonstrate how the disappearance of biodiversity directly affects ecosystem functions that underpin critical services for human well-being' (Gómez-Baggethun, de Groot, Lomas, & Montes, 2010, 1213). We have thus been asked to develop a better conceptual framework for 'linking management with its biophysical foundations' (Winn & Pogutz, 2013, 204) and merge the management of nature's household with the management of humankind's household (The Journal of Ecological Economics, 2013). In definitions of 'strong sustainability', companies are pushed to become more integrated into socio-ecological systems and to provide for production and consumption patterns that the planet can sustain (Roome, 2012). This demands a new type of organisational change, one that takes into consideration and fosters adjustment to planetary boundaries (Whiteman, Walker, & Perego, 2013). In addition, some scholars have argued that managers should take natural laws into consideration with the goal of increasing their organisation's ability to meet the more extreme weather events that climate change causes (Linnenluecke & Griffiths, 2010). The concept of resilience reappears here as a framework that can enforce the possibilities for reorganisation when we have distinct breaks of physical continuity. Similarly, complexity theory reappears to provide potential solutions in the form of linking 'macro-level analysis of systems and micro-level understanding of organisational initiatives' (Levy & Lichtenstein, 2012, 592). The micro-level perspective is conceived as more useful when it comes to solutions, since networked actors can self-organise via local initiatives and experimentation, resulting in 'systemic learning and adaptation' (ibid, 603). These examples thus seek to align business with ecological reasoning, predominantly by invoking complex systems theory, to find new management tools and to enable other management tools to emerge spontaneously.

Manage in accordance with markets

The field of management and organisation also provides a position to speak from which emphasises market-based solutions and corporate environmentalism. Managers are told to fold environmental thinking into strategy and to seek eco-advantages (Esty & Winston, 2009). In line with Ecological Modernity we can observe a continuum of stronger to weaker belief in economic development as a solution to climate change (Pagiola, Bishop, & Landell-Mills, 2002; Pinkse & Kolk, 2004; Sandor, Bettelheim, & Swingland, 2002). The European Emission Trading Schedule has nevertheless been criticised for being too politically driven and not shaped enough by economic and environmental logics (Veal & Mouzas, 2012, 1610). Some researchers who propose market-based solutions do see taxation as a complementary solution (e.g. see Brohé, Eyre, & Howart, 2009). However, the general preference of those who support market-based solutions is to hand over responsibility from governments to businesses, whose 'engineers, economists and financial specialists' must use their ingenuity to come up with creative solutions, (Yamin, 2005: Foreword). In even stronger neoliberal terms, 'climate capitalism' has been proposed as a way that business leaders can save their businesses

and lead the way to new profit whether or not they believe in climate science (Lovins & Cohen, 2011). 'The choices you make this year and next will determine whether you, your community, and ultimately your country come out of the economic collapse prosperous and in a position to secure the future you want, or whether life will become an unending reaction to emergencies that batter our ability to cope' (Lovins & Cohen, 2011, 4). Proponents of climate capitalism suggest that 'entrepreneuring' could become a strong form of action which provides solutions and not just coping strategies (ibid, 3).

Others propose that corporations should be increasingly recognised as political actors, which could bring about new enactments of ecological responsibility (Crane, Matten, & Moon, 2008). Scholars have also addressed the ways that businesses have embraced climate change in their communication, with the ambition to secure that companies can become the saviours they display themselves to be (Frandsen & Johansen, 2011). Other scholars have questioned the extensive climate funds available for projects in developing countries; their aim has been to find more appropriate uses for these, still-prioritised financialization tools (Michaelowa, 2012).

Manage in opposition to markets

In comparison, there are those who seriously criticise capitalistic ways forward and seek alternative actions (Banerjee, 2012, Böhm & Dabhi, 2009). Böhm, Misoczky, and Moog (2012), for example, have shown that encouraging green development in the South actually subsidises polluting industries. In this critique of carbon markets, the authors outline how we can pursue an in-depth analysis of these politico-economic tools (carbon markets) as part of the broader historical development of capitalism. Other scholars criticise companies more directly, specifically in relation to how they manipulate information (MacKay & Munro, 2012; see also Wæraas & Ihlen, 2009) and form fake grass-roots organisations (Cho, Martens, Kim, & Rodrigue, 2011). Of specific interest is the issue of truth constructions and the twisting of facts for 'defensive institutional work' (Lefsrud & Meyer, 2012). These studies focus on how discursive struggles and the construction of expertise provide knowledge claims with the status of truth. In turn, this may affect public policies and environmental strategies. However, Lefsrud and Meyer also explain that experts who are linked to industry can form command posts that drive resistance to regulations. These studies of information warfare encourage the reader to join the fight between the political and the corporate.

Look out! Management in accordance with the individual

Another critical stance towards corporations can be found in literatures that address how corporations more or less strategically use individual employees to run corporate errands (e.g. see Wright & Nyberg, 2012; Wright, Nyberg, & Grant, 2012). Nyberg, Spicer, and Wright (2013) have shown that corporations influence political debates by incorporating citizens and calling on them to make green missions more authentic. Corporations seek to mould a common identity with citizens to synchronise their own interests with those of

the citizens. The authors argue that this process 'entails an attempt to build a common sense of subjectivity between differing groups, where people are enticed to identify with hegemonic corporate projects' (ibid:444). They agree with the criticism of market-based solutions in assertively ironic terms: 'Within this dominant perspective, the only solution to the problems of capitalism is more capitalism!' (ibid: 450) Analysing wider debates, Levy and Spicer (2013, 661) systematise how 'climate imaginaries', via shared socio-semiotic systems, tap into popular interests and identities to constitute 'value regimes' which stabilise both economic value and environmental visions. Levy and Spicer further suggest that these value regimes may become dominant to the extent that certain conditions for organisational responses to climate change are prioritised whilst more radical solutions are closed off. From another standpoint, Phillips (2013) treats the conflicting interests between business and the environment as a prosperous site for the empirical investigation of identity formation. She thus cultivates a position to speak from which is grounded in a sociological account of research practice. In an organisational studies article, she shows that it is not companies who are deploying the strategies, but rather 'ecopreneurs' who she assumes are seeking a coherent self.

Manage towards transformative change

Common for many of the above examples is a quite aggressive research ambition which offers the reader to join both the challenge of climate change as well as the fight against emitting corporations. Scholars have criticised politicians and businesses for their reluctance to actually take action to solve the problems associated with climate change. Wittneben et al. (2012) have called for 'transformative action', and in their call for a special issue on climate change, Wright, Nyberg, De Cock, and Whiteman (2011) 'are particularly interested in papers that actively respond to this global challenge'. Action researchers take this position even further by asking how we, as citizens, can 'mobilize to bring about policy change for climate change'. Action researchers also aim to 'professionalize and strengthen community engagement, project ownership, agency and empowerment in social movement campaigns' (Hall, Taplin, & Goldstein, 2010, 72). Levy and Spicer (2013) mention that incremental change is more common and that it is hard to find a climate imaginary that merges a belief in the resilience of the environment with an awareness of the need for radical change. Lefsrud and Meyer (2012) add that businesses often invoke the conflict about climate change to oppose regulation and thereby inhibit necessary action. Banerjee (2012) points out that businesses also use this strategy to oppose international regulations; Barnerjee asks for 'a profound shift in our collective imagination' to 'enable a radical re-visioning from regimes of accumulation to regimes of distribution' (ibid, 1789). Others point to the crucial issue of our Western time perspective and argue that society should 'confront the many challenges and complexities associated with climate change' by altering 'the way we view, value, and manage time' for 'a more sustainable vision of the future' (Slawinski & Bansal, 2012, 1561).

Consequently, there seems to be a separation in the scholarship on climate change between scholars who ask for

'transformative change' and those who study broader management issues in light of social responsibilities (e.g. see Crane & Matten, 2012; Crane, McWilliams, Matten, Moon, & Siegel, 2008). Furthermore, critical studies of CSR (cf. Dobers & Halme, 2009; Fleming & Jones, 2013; Holmqvist, 2009; Fleming, Roberts, & Garsten, 2013) have cast suspicion on management ideas that takes on social and green missions. CSR, therefore, does not seem to provide with a stable position from which to speak truthfully about transformative change. Mainstream CSR is not as aggressive as the machismo radicalness asked for by some of the alternative academic voices.

Prevailing limits and future possibilities

The first section of research positions showed how the natural and social sciences intermingled with help of climate materiality, uncertainty, changeability, complexity and resilience. Hence, a family resemblance emerged, visible in the shared specialist vocabulary between the disciplines. The next literature section and outline of research positions rather showed how climate change is socially, economically and politically problematized and connected to a more direct applicability of knowledge produced within MOS. With help of neighbouring fields I will now elaborate on three potential effects of these legitimate positions to speak from: (1). Underdog heroism (2). Disciplinary confusion (3). Debased political subjectivity.

Underdog heroism

So what can we observe in the field of management and organisation, broadly speaking? Generally, researchers complain about the lack of action to meet the real dangers of climate change. Either business and governments are criticised for not taking action at all, or they are criticised for taking inappropriate action. There are quite strong expressions of dissent, contestation and activism within MOS. It is from my point of view difficult not to be impressed by the devotion to make a difference here. According to this literature, victory over emitting companies seems to be very far away. Whilst this means that researchers are the underdogs in this struggle, climate heroism is nevertheless present. This heroism could be a bit problematic for two related reasons. First, the prevailing form of heroism in the fight against climate change, and its corporate crooks, brings with a masculine research position (compare Berglund & Johansson, 2007; Crevani, Lindgren, & Packendorff, 2010). In addition, this seemingly obligatory macho self-formation (i.e. becoming someone by displaying courage and strength) might be unattractive for a major part of the men and women in the social sciences. To be left to constant struggle with the climate challenge may seem inevitable since the issue has been raised as extremely complex, potentially disastrous and exacerbated by hegemonic capitalism. This requirement to defend, protect and ultimately save a feminised 'vulnerable' biosphere, may limit alternative knowledge forms to emerge. Currently, it seems that to prove themselves, scholars in MOS are almost required to participate in a war initiated by natural scientists. Unwillingness to conduct research under such circumstances should neither be quickly depreciated as cowardice nor condemned as indifference.

Disciplinary confusion

In contrast, colleagues in neighbouring fields keep to their core area and engage at arms length with the natural sciences. Peeking into the backyard of political science and international relations, some scholars even seem to be busy cleaning up the mess that intruders have left behind (Evans & Reid, 2014, 62). At the same time, business schools rather speak about governance than management when they seek ethical bearing (among others Cass Business School, 2014). Besides, the social sciences rely to a great extent on interchange between fields, which has been fruitful for the advancement of MOS (Grey, 2009). Within social sciences perspectives on climate change, there is moreover a striking difference between those who articulate theories that do not make the human a means for nature as an end in itself, but make demands in a different way. To provide with a provocative example, climate-induced migration is welcomed so as to 'resource an affirmative imaginary, celebrating the beauty and possibility that emerges through the monstrous mixing of life across the climatic boundaries' (Baldwin, Reid, & Evans, 2014, also see Reid, 2014). It is the potential for transformation and passage into new worlds and communities that is important, not the sustaining of old liberal ones. If this affirmative imaginary is not pursued, the authors argue, we will be left with 'new spaces of confinement and practices of biopolitical intervention' (Baldwin et al., 2014). This exemplifies how political arguments are refined with help of a specialist vocabulary that makes it possible to analyse the effects of ecological reasoning. This has advanced theory that can be further developed within other fields in the social sciences, without involving natural science. This will avoid the disciplinary confusion that was exemplified previously in this research note under the headline 'Resilience', where for example the spread of narratives was claimed to follow evolutionary logics.

In line with for now popular analogies between ecology and society, environmental change and social change, scholars have also invoked the post-human perspective and new materialism. These perspectives contrast with modern liberal dichotomies of nature/culture and object/subject and instead embrace flows and 'an unknowable world of blind necessity', Chandler argues (2013). In this world, 'new materialists, actor-network theorists and post-humanists' treat creativity and agency as a product of the assemblages, associations and relationships through which we are attached to the world' (ibid:516). However, in the effort to find solutions to climate change, MOS overlook the intricate bond between the vocabularies that make up nature's complexity and the overall lurking complexity in the post-human world. Contemporary changelessness may thus escape us in the form of out-dated reproductions of environmental complexity, for instance found in the Habermasian construction of social systems (cf. Habermas, 1973/2007, 4). Proposals to work on less anthropocentric value orientations within organisation studies, to place organisations as embedded in the biosphere, likewise miss to consider the effects this has on political subjectivity (e.g. see Ezzamel & Willmott, 2014). What has not been acknowledged, furthermore, is the affinity between Holling's systems ecology and Hayek's later extension of complex systems theory for an advancement of neoliberalism (Walker & Cooper, 2011).

Debased political subjectivity

Nikolas Rose (2007, 97) stated early on that global warming is a clear example of an 'ethicalization of politics' through which we are governed (Rose, 2007, 97). Knowledge about anthropogenic climate change may accordingly shape our ontologies of ourselves (compare ibid:105). Hence, the possibility for self-regulation through carbon calculations depends on a will for rational foresight that functions as an 'ethical technology' aimed to produce a civilised citizen (ibid, 1999, 77). Scholars in the growing area of climate governmentality studies have discussed such self-management for years (Lövbrand, Stripple, & Wiman, 2009; Methmann, 2013; Oels, 2005, 2013; Paterson & Stripple, 2010, 2012; Stripple & Bulkeley, 2013), but for the most part, scholars in MOS have not yet followed suit (however for CSR see Vallentin & Murillo, 2012).

Travelling even farther academically, some scholars worry about an ongoing de-politicisation in climate change (e.g. see Swyngedouw, 2010). Instead of focusing on changes in how 'the social' is governed, these scholars emphasise how climate change transforms 'the political' (e.g. see Reid, 2012; Stilhoff Sörensen & Söderbaum, 2012). It is not enough to clean up the disciplinary slippage that has paved the way for climate change research; these efforts are followed by fencing off one's own disciplinary backyard. It is not until then that it is possible to scrutinise the effects of knowledge production on climate change, and what it does to political subjectivity.

To be positioned, in depth, within a specific disciplinary-based perspective — to be advanced — has lead to a number of important research findings. Such rigorous research has shown that the prevailing uncertainty in times of climate change has spurred anticipatory actions to offer mere relief and to offer such relief only to valued life rather than all forms of life (cf. Anderson, 2010). Moreover, these policy efforts presuppose a vulnerable subject who is to become self-reliant, someone who voluntarily should give up on any provision of security. Besides, this debases the political subject and reduces the possibilities to construct a world which is not condemned to disaster (Reid, 2012). This follows from a colonial debt and the shift from ruling to helping unprivileged populations in the global South, so as to make them self-reliant through liberal development programs (cf. Duffield, 2007). On the other hand, it is also about how some forms of life in the global North, such as polar bears, receive increased attention and support (Slocum, 2004; Yusoff, 2009). Furthermore, what critical management scholars with political ambitions have neglected to address, is that we have downplayed human agency by poetically handing our agency over to objects and accentuating resilience-thinking. We are not only determined to live in various typologies of 'systems', but the human should accept to be processed within these as well, seduced to partake as 'citizen scientists' in the assemblages that just keep unfolding.

A constructive rupture: blue-sky research for management studies

It might indeed be difficult for scholars within the young field of management and organisation to ground their positions

within their own backyard. Looking closely at the previous parts of this research note, and the existing surfaces of contact between disciplines and fields, there are obviously no clear boundaries to manoeuvre within. In addition, scholars in MOS express a sense of burdensome inferiority compared with more historically rooted knowledge formations. Understandably, we have been offered cross-fertilisation with other fields to provide alternatives to narrow mainstream management theory. If we engaged more 'in conversations with anthropology, ethnography, organization and management literature, sociology and political science', we could teach more about the effects of management (Holmqvist, 2012, 262). However, it is important to keep in mind the risk of developing shallow acquaintances with other fields, especially since we are currently being called on to partake in the environmental humanities only if our work is 'informed by science' and offers solutions (ISSC, 2013). So how can management and organisation scholars defy the consultancy connotations of the 'so-what question'—by looking up into the blue sky and pointing to something other than low-hanging grey clouds?

I suggest that we replace the taken for granted 'so-what question' by hijacking the term 'blue skies', seemingly Plato-inspired (cf. Arendt, 1958, 292), but used frequently in the natural sciences. This concept may provide a constructive rupture in the quest for inter-, cross-, trans-, and post-disciplinarity inherent in the environmental humanities' wish for direct applicability of knowledge. It could possibly even open up room for a research agenda that resurrects the 'academic' and cultivates curiosity-driven social science on climate change. I am suggesting that it is due time to reaffirm the *academic* and return to the traditional interest in advancing specific perspectives within disciplines. Such a research agenda is an attempt to complement the current legitimate positions from which scholars in both climate science and MOS speak about climate change.

Julius Comroe first established the notion of 'blue-sky research' in 1976; the term 'implies a freedom to carry out flexible, curiosity-driven research that leads to outcomes not envisaged at the outset' (Linden, 2008, 1). To be clear, this blue-sky metaphor is the opposite of the applicability currently being called for within the environmental humanities. It is an approach that challenges accepted thinking to further new fields of study through scientific discovery. Blue-sky research thus relates to natural science and basic research that seeks to counter the growing financial support for short-term, goal-oriented research perspectives. However, even financers of blue-sky research have lately been calling for innovations that can be directly commercialised (see EU, 2013). Such calls do not invite blue-sky research as an approach that treats science as an end in itself. In this EU call, science becomes a mere by-product in the search for more lucrative ends.

So how can we redefine the blue-sky metaphor for the social sciences? First, we can recognise it as a positive affirmation of all the possible research paths that we could take if we would allow ourselves and our colleagues to take them. Blue-sky research, furthermore, is an answer to bad guesses; it affirms that knowledge production is its own end and a legitimate reason for conducting research. We do not know enough about anything — we do not know what makes the sky blue — but with curiosity-driven basic research, we can explain previously taken for granted concepts (Linden, 2008). Hence, those concepts that currently are increasingly shared between natural and social scientists could be genealogically studied to unravel taken for granted or neglected relationships between them.

However, can we become more blue-sky oriented and nostalgic without being criticised as regressing? Can we do social science on climate change without resurrecting hostile boundaries? What are the potential difficulties with blue-sky climate social science and how can management and organisation scholars address these?

The blue-sky research agenda — that is, the strong call for more traditional academic curiosity — counters a seductive research position of post-disciplinarity. The concept of post-disciplinarity seeks attachments to freedom, as Murphy (2009) lays forth; post-disciplinarity 'evoke[s] an intellectual universe in which we inhabit the ruins of outmoded disciplinary structures, mediating between our nostalgia for this lost unity and our excitement at the intellectual freedom its demise can offer us'. Post-disciplinarity is also promoted in courses designed for students from different disciplines, and we can particularly find it where sustainability classes are taught. However, post-disciplinarity may as well have problematic unintended effects. Even if post-disciplinarity may not directly lead to a death of universities, it may indeed kill parts of it by stimulating preferred types of work under its wings. We might see reformed rules for quality assessments and academics recast as more flexible consultants. That is why it for the moment seems crucial to resurrect boundaries around disciplines with help of the curious academic and blue-sky social science.

The blue-sky research agenda does not only counter post-disciplinarity but also cross-disciplinarity. Cross-disciplinarity is however a research approach embraced in contemporary calls for more relevant research within the field of management and organisation. For example, cross-disciplinarity has been assumed to facilitate alternatives to established research 'sandboxe[s]' in management studies (Markman, Jennings, Lumpkin, Mair, & Russo, 2013). True interaction between disciplines could according to this call for papers in JMS (Journal of Management Studies) provide with 'edgy' scholarship and a break from the narrowness of traditional research. Where 'novelty' is added to 'freedom' as yet another seductive attribute given to the breaking of discipline boundaries. Somewhat similarly Alvesson and Sandberg (2014, 967) recommend a break with 'narrowly circumscribed areas of study' and 'a blinkered mindset'. They argue strongly for the case that management and organisation scholars have deprived the world of interesting, relevant, and influential research (Alvesson & Sandberg, 2013; Sandberg & Alvesson, 2011) and reaffirm 'homo academicus' (Alvesson & Sandberg, 2014, 974).

In contrast to this research note, above arguments delivered by prominent critical management scholars exemplify how the 'so-what question' is introduced to secure, ahead of time, a broader interest in research. The main worry is that there is an 'overcrowded market place' of strategic specialists and/or insecure identity seekers (ibid:973). Tellingly, the authors transform knowledge into a product that only is valuable if it has not been produced under insular circumstances and, in extension, is influential and relevant, i.e. widely consumed. The discussion circles less around how funding

steers research, and more about how researchers who seek intellectual support, community belonging, status and political power become 'boxed-in' and 'get stuck in their own box identity' (ibid:975). Others criticise how contributions are rhetorically constructed (Locke & Golden-Biddle, 1997), how researchers write up their empirical material (Alvesson & Kärreman, 2007), and focus on gap-spotting instead of questioning basic assumptions (Sandberg & Alvesson, 2011).

These claims to 'know' what form of social relations other researchers experience within their communities may nevertheless unravel quite little about the 'other'. What should not escape us is the varieties of modes researchers sometimes dare to follow each other deep sea, often with ambitions to avoid shallow acquaintances and instead experience how profound knowledge acquisition can be (see further Agamben & Ferrando, 2014, 10—21). Instructively, however, Alvesson and Sandberg criticise the publishing hysteria that has spread among academics and the currently pathological process of publishing; they argue that this publishing crisis directs and limits the research questions that scholars may pose. This criticism is likewise relevant for a blue-sky research agenda that is nonstrategic about love from the audience. To be clear, scholars and editors who are impact-stressed will most likely keep their brains off blue-sky social science. It is neither popular nor financially rewarding to counter the strong wish for discipline-mixing in the making of the social sciences into something 'bolder, better, bigger and different' (ISSC, 2013), but such a counter is definitely as free as any I could ever fabricate.

In less abstract terms, such a position-taking could cultivate a climate social science that is able to offer more discipline-specific and non-solutions oriented material suitable for social science programs on sustainability. As was illustrated in the first parts of this research note, such a research position is, to my best knowledge, uncommon or even illegitimate. It seems more legitimate to include citizens in the knowledge production on climate change, than to advance social theory on such efforts. Management and organisation scholars could address this in many ways, of which one is to unearth the historical intersections between management/organisation and governance. Hopefully legitimately, this could open up for further investigations into the security problematic and the effects of new biopolitical strategies (Dean, 2010, 167—9; Duffield, 2007, 184—214; Foucault, 1978/1997), that follows from how businesses invite employees and citizens to manage and relate themselves to the category of 'life'. Grey (2009) has similarly proposed introducing new theory on security to organisation studies. This may open up for a genealogical interest in the 'relationality and historicity' between specific forms of life and politics (Lemke, 2010:429) and the intricate and quite busy merger of conceptualisations of life and economy (Cooper, 2007, 2008) in the 'corporatisation of biopolitics' (Skoglund, 2014, 151). We may thus have to seriously consider the transformation of neoliberalism by how it has 'broken from earlier liberalisms in that it correlates claims for its legitimacy not simply with practices for the development of the species life of humanity, as Foucault directed us to recognize, but with biospheric life' (Reid, 2013, 1). In extension, it finally lets us ransack the Kantian form of Enlightenment (see further Evans, 2013, 108—120), which 'forces us to accept the limits of this world' and, in so doing,

governs truth and truth-telling and limits our ability to imagine and to lead our lives in imaginative ways (Evans & Reid, 2014, 196f). Besides, this could open up for alternatives to the current reliance on ecological reason and complexity theory in MOS. Climate social science could also benefit from studies of how human resource management turns to ecological reasoning and how green activists take up corporate managerial positions. Finally, by allowing time for academic curiosity, management and organisation scholars may find it fruitful to contemplate upon their constructions of new social worlds, and how these are presented to future sustainability consultants in class.

Conclusion

This research note has highlighted some of the common legitimate research positions on climate change and scrutinised the ways that natural science and MOS currently intermingle. The aim has been to open up space for an academic curiosity about climate change, not only for management and organisation scholars, but for the sake of crafting a climate social science. I have sought to open this space by replacing the 'so-what question' with a 'blue-sky research' approach, acknowledging the many ways in which we could pursue discipline-based academic climate projects.

Climate social science aims to provide an alternative to studies that are underpinned by a science-led war about climate change. Importantly, though, this does not mean that a climate social science would disagree with scientific findings or devalue cross-disciplinary collaboration. I am not scrutinizing or attempting to replace our knowledge about natural laws or scientific efforts to improve upon calculations and scenarios about anthropogenic climate change. Rather, what this research note has shown is that a climate social science can provide management and organisation scholars with argumentative space for analysis and theory about climate change. We can only hope for some blue-skies research on climate change from now on.

Acknowledgement

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