



# The shock of the Anthropocene and a margin of hope: On possibilities for critical thinking in the Arctic context

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## abstract

As the limitations of anthropocentric thinking become more apparent, some critical research is becoming justified with recourse to the language of performativity. This essay considers this development from an Arctic setting, through the work of Michel Serres. The shock of the Anthropocene and the new forms of knowledge production oblige Arctic universities to become 'useful' to the global economy and to draw funding from outside the Arctic. Serres's discussion of the parasite provides conceptual orientation towards and practical orientation within this predicament. In order to survive in the Arctic universities without losing heart to technocracy, critical researchers, I argue, should transform into what I call parasitic cyborgs or assemblages of actors navigating the Arctic passages

## Introduction

The balance of earth systems is altering on a global scale (Wark, 2015) and the safety of humanity is known to have been reduced as a direct consequence of human action (Rockström et al., 2009). And yet the collective responsibility for the future is rarely recognised, let alone deliberately enacted (Stengers, 2015). This polemical essay responds to this baleful scenario by considering the possibilities for critical thinking with material effects in the Arctic context.<sup>1</sup>

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1 My account is limited to Euro-Arctic Nordic multi-faculty universities, reflecting the situation mostly from the perspective of social science and their changing landscape of research funding. I exclude indigenous studies here, because indigenous studies

Following Peirce, a concept is useful only if it can modify purposive action. And so with the ‘shock of the Anthropocene’ (Bonneuil and Fressoz, 2016; cf. Haraway, 2016), I foreground the epoch’s effect upon human action.

Unfortunately critical theory seems to have been incapable of generating such responses (Bryant, 2011: 289). Latour (2004) was probably right: contemporary critical theorists are too much like generals condemned to fight their last war. And during recent years, I have observed critical scholars in Arctic universities becoming increasingly isolated, for reasons I later discuss. For me, working in an Arctic university in the current situation is also sometimes frustrating.

This essay surveys the prospects for critical social science within the Arctic context and recent debates concerning the possibilities for critical performativity. The difficulties for addressing the audiences in the Arctic facing the shock of the Anthropocene are read through this context. To propose a way forward for the Arctic critical thinking the value of Michel Serres’ account is being examined and a polemical figure of the parasitical cyborg is proposed. This way the shock of the Anthropocene has the potential to catalyse critical theory in the Arctic context, offering us the margin of hope we require.

### Critique, performativity and the shock of the Anthropocene

Discussions of technoscience suggest a crisis in the relationship between nature and culture (Peters, 2015) so that traditional critical theory’s emphasis on social justice comes to appear outdated (Virilio, 2010). In what follows I will argue that, rather than seeing themselves as mere observers of technoscientific developments, contemporary scholars should also see themselves as technoscientific products. This requires a reconsideration of the role of social scientific agency, the relationship between the knower and the known included. Following Latour (2004, 246; italics original; cf. Latour, 2014), we should detect ‘*how many participants* are gathered in a *thing* to make it exist and to maintain its existence’ (see also 2013 and 2017). Haraway (1997) and Barad (2003, 2007) have also developed techno-scientifically mediated critical theoretical methodologies which aim at the production of material effects. Contemporary critical scholarship can only claim relevance beyond the academy, it seems, by framing the importance of their work exoterically.

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scholars facing the shock of the Anthropocene often have a different relationship to the local communities than most other Arctic social scientists, like expressed by Raygorodetsky (2017) in his *Archipelago of hope*.

Within Business and Management Studies, this seems to have been the characteristic plight of Critical Management Studies (CMS). To what extent should the focus of CMS be on understanding management and to what extent should it be upon changing management? The field's failure to communicate beyond itself was pointedly lamented by Parker (2002: 184) as an 'endless glass-bead game (...) doomed to have relative irrelevance in the bigger games that shape our lives'. In a seminal statement made when the field was becoming institutionalised within university based business schools, Fournier and Grey (2000) argued for three foundational principles: denaturalisation, reflexivity and non-performativity. A so called third wave aiming at greater public significance (Spicer, 2014; Spicer, Alvesson and Kärreman, 2016) pushes back against the third of these foundational principles. Through the concept of 'critical performativity' (Spicer, Alvesson and Kärreman, 2009; Alvesson and Spicer, 2012), it is held that critical management scholarship should consist of practical interventions into organisational life.

The development has met with considerable opposition. Spoelstra and Svensson (2016) argue that CMS research should not be directly useful, that it should remain outside and distant, and that it is more about opening up than closing down. Others see the critical performativity development as hypocritical (Fleming and Banerjee, 2016), exclusionary (Learmonth et al., 2016) and poorly-theorised (Cabantous et al., 2016). The strong implication has been that critical performativity amounts to a publication strategy which seeks to cash out on already accumulated academic capital. Austin had already highlighted the felicitous context of performativity (Austin et al. 1975).

I'm sympathetic to the ad hominem point but it does not dismiss the wider structural point. After all, a large part of academic labour – certainly in the Nordic context – consists in convincing non-academics as to the relevance and fund-worthy nature of your work. The south Scandinavian context within which many of critical performativity's advocates operate make the concept less relevant for Arctic scholars but fortunately the discussion is also flourishing in other forms. Recently, increasing scholarly attention has been paid to the generative power of the concept of performativity from a position that acknowledges the material dimension (e.g. Butler, 2010; Callon, 2010; Orlikowski and Scott, 2014). I next consider the Arctic context and possibilities of critical thinking with material effects in Arctic universities where social science is practiced.

## The Arctic context

The possibilities for critique are experienced, lived and practiced in specific contexts. The approach in this essay is Euro-Arctic, augmenting the discussions of the shock of the Anthropocene by situating it to the Nordic universities situated within the Barents Euro-Arctic region. As an institutional context, the Arctic universities<sup>2</sup> are different from business schools where the majority of CMS academics are situated (cf. Hartmann, Kärreman and Alvesson, 2016). Many of the trends in higher education have characterised the Arctic context, making it less felicitous. Market-driven managerialist reforms have disturbed the life of academics as universities as producers of knowledge are expected to become 'useful' to the global economy (Kallio et al., 2016) in what Martin (2011) describes as the ongoing technocratic takeover of universities. Indeed, it has been claimed that contemporary university exists to produce conformity (Docherty, 2015), while Parker (2014) notes the failed attempts by critical management scholars to resist such a technocratic takeover.

Arctic social scientists are increasingly required to consider their relationship to the Arctic knowledge infrastructure. Knowledge infrastructures where science is organised as both a culture and a technological infrastructure defines the means of knowledge production (Edwards, 2010; Karasti et al., 2016). In the Arctic knowledge infrastructure, the traditional investigator-initiated discipline-based knowledge production is increasingly regarded as outdated (cf. Nowotny, Scott and Gibbons, 2001), and the role of international interdisciplinary research consortia are becoming more important. Research should now boost local 'innovation clusters' and generate knowledge that enables more efficient exploitation of the Arctic.

In all Nordic countries, the population is relatively well educated and sustainability is considered important, but a blind eye is turned to the potentially harmful effects of localism. There are also some country-specific differences between Euro-Arctic universities: in Finland, conservative governments made funding cuts that worsened the working conditions in all universities, dubious higher education reforms affected the situation in Norway, while in Sweden the

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2 The 'Arctic' has become a buzzword during the last decade and different actors in different situations emphasise different aspects of it, making Arctic so-called flexible territorial entity (Kristoferssen, 2014: 11), while the use of the concept can empower some actors or overshadow other interests (Keskitalo, 2015). For example, the universities of the Arctic regions have a strong regional role, but they did not often label themselves as Arctic before it became apparent that doing so would help them to secure funding.

recent policy goals have further highlighted the commercial and innovation-oriented roles of universities (Pinheiro, Geschwind and Aarrevaara, 2016). Euro-Arctic universities themselves are often poorer than certain Scandinavian business schools, and have traditionally depended on direct state funding as well as the support of the local stakeholders. Because strong business schools do not exist in the Arctic regions, social sciences are practiced in relatively small units within multi-faculty universities, where administrators often demand assessment exercises that reduce the outputs of scholars to a number.

All this has material and intellectual implications. To begin with, scholars in Arctic universities aren't always sympathetic towards their southern colleagues, and vice versa. For example, the seemingly mundane practices of academic publishing which might be partly postcolonial marginalise the northern periphery (see Meriläinen et al., 2008; cf. Canagarajah, 2002). In the Euro-Arctic region the colonial history is so messy that it is very difficult to distinguish who has been colonised by whom. It is as if Euro-Arctic scholars are almost as Westerners as their colleagues in southern Scandinavian universities, but not quite.

Arctic scholars might also be labelled merely as servants of the colonial administration exploiting the Arctic, because the shock of the Anthropocene leaves social sciences on a whole in the Arctic universities, and especially research related to Arctic governance and northern change, in an awkward position. It is often assumed that solving the problems of the Anthropocene would require Arctic research to steer collective behaviour towards outcomes chosen by others (see Pelaudeix, 2015; Young, 2010; 2017). The solutions currently offered to the ecological disasters of the Anthropocene by those funding Arctic research are usually those of endemic technocratic grand narratives (cf. Bonneuil and Fressoz, 2016).

The implication being that Arctic social science must either co-operate with natural scientists, or remain isolated. While the latter option still currently prevails, funding flows will soon ensure the rise of the former. Furthermore, if critical scientists continue to be uncooperative, the future Arctic knowledge infrastructure will be shaped by those who do not sense the shock of the Anthropocene quite so keenly. I fear that the possibilities of a social scientific questioning of the Arctic technocratic consciousness are dim if research on Arctic governance and northern change remains limited by the institutionalised inability to theorise the role of knowledge production mechanisms in socio-technical systems that have material effects. I urge social scientists to launch new

identity projects that facilitate critical thinking with material effects and enable a margin of hope.<sup>3</sup> And I know one philosopher who can assist in this.

### Maintaining a margin of hope with Michel Serres

To recap, I argue that the shock of the Anthropocene requires Arctic critical researchers to refashion their role in the knowledge infrastructure before technocracy prevails.<sup>4</sup> Enter the post-humanist figure of the parasitic cyborg inspired by Michel Serres feeding at the table of technoscience.

In his œuvre, Michel Serres analyses connection, relations and the interface between human nature and the rest of nature. Latour (1987a) labels Serres' work queer empiricist and views his philosophy as pre-critical because it rejects revolution and works without metalanguage. As a former naval officer, Serres keeps finding passages between and among cultural productions that seem disparate. As a former mathematician, Serres likes shortcuts and rapid thought. This is expressed in his writing style, where short-cuts are made and novel passages opened between different realms in non-linear fashion without bothering to follow the institutionalised faculty territories (Paulson, 1997). His encyclopedic style and intertextual fabric might at first appear off-putting, but follows from his understanding of the philosophical vocation as a boundary crossing one.

For Serres, reason is evenly distributed in the world and not the property of science. He gives the name *tiers-instruit* to one who is able to give up the comforts of disciplinary specialism and risk putting themselves into perpetual translation (Serres, 1991). He often urges us to 'go outside of the human sciences, outside the streets and walls of the city', because traditional political agency is only able of capturing the administrative organisation of groups within the *polis* (Serres, 1995a: 44). He (2014b: 5) regards the traditional *polis* and the urbanisation that fuelled it dangerous because it alienates us from worlds other than its own (see Brown, 2002 and 2005; cf. Bell, 2010.)

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3 Term 'margin of hope' was coined by Irving Howe (1984) in his intellectual autobiography. For him it was connected with what Gershom Scholem had called 'plastic hours' or the times when sentiments of hope spread, people come together, and it is possible to act.

4 This is the old warning once expressed by Max Weber (1949), stating that if science does not know its limits, it is used to eradicate those aspects of our lives that make it meaningful for us because they look 'irrational'. Weber was aware of the important meaning of what he called meaningless infinity, or that which escapes the rationalisation attempts of secondary (technocratic) thinking.

In *Natural contract* Serres (1995a) formulates his neo-ecological position upon which he claims the modern conceptualisation of the natural world and our relation to it must be redefined. Ecosystems are living and vibrant agents with which humans co-exist in constant and delicate interactions, vastly extending the definition of the social of the social contract. Serres's solution is to articulate agency from multiple perspectives (see also Latour, 2014: 6f). Throughout his work, Serres (1995c) demonstrates the crucial role of mediators in the constitution of knowledge, constantly questioning the traditional division between human and artefact. He often employs a topological mode of thinking, a shifting distribution of points in complex spatial arrangements to analyse the complexes of space and time, matter and process (Serres and Latour, 1992). His is the ongoing search for the enigmatic union of subject and object which joins historical consciousness and the materiality of the world (Assad, 2011; see also Serres, 2009, 2014a, 2015). While he has it that modernity began when the external world became a feature of the inner subject (1995c), science, for Serres, is not thinkable outside of the collectives and the technologies that provide its proper milieu (1995b). His vision of scientific thought stresses the instability of the positions of observer and observed, sender and receiver, subject and object, and human and the artefact (cf. Brown, 2005). For Serres (1995a), ecosystems themselves are living and vibrant agents within which humans co-exist in constant and delicate interactions, vastly extending the definition of the social and of the social contract.

The solution he offers is to establish a new social contract based on the rights of symbiosis, itself defined as the reciprocity between humans of nature. As the humans of the Anthropocene are equivalent to natural forces, in Serres' view, nature should consequently be endowed with the same rights as those claimed by humans. In his own discussion of the concept of the Anthropocene within *Times of crisis* (2014b), he indicates how Nature itself might become understood as a subject with a voice, a conversation partner. Planetary environmental crisis requires that the beings on our planet including air, water, energy, earth, living beings (Serres calls this *Biogée* or Biogea) constitute a kind of parliament called WAFEL (Water, Air, Fire, Earth, Life) with voices that can address the problems of the Anthropocene with humans. Serres optimistically emphasises the role of science in giving a voice to the non-human world, while acknowledging the requirement to have this voice spoken in multiple tongues. Social scientists, as Serres has it, could help to transmit, receive, store and manage information in ways that could help us all live in Biogea. Only those scholars who, as 'secular people, swear they do not serve any military or economic interest', he states, can speak in the name of Biogea (*ibid.*: 65).

Also relevant to our present concerns is Serres' discussion of how order emerges from disorder. Drawing from information theory, especially Henri Atlan (1974), Serres holds that messages are always received with noise and, by extension, that noise itself is valuable. In *The parasite* (2007), which Serres calls the book of evil, the asymmetrical relation of taking without giving that defines parasitism is shown to characterise communication and human relations. He achieves this by pointing out that the word parasite comes from the Greek *parasitos*, which literally denotes a person eating at another's table. The term parasite also refers to noise (*bruits parasites*) in radio technology and information theory. Parasites are required, it follows for Serres, because no relation is possible before parasites insert themselves into the circuit. Throughout the history of philosophy there have been many attempts to purify systems of noisy or parasitical contamination but Serres sees these as essentially failing.<sup>5</sup> The parasite, argues Serres, is present in every system because disorder is there from the very outset, hence: '[w]hen the sciences *add* variety to the world, they are to be used. When they subtract variety they are to be rejected' (Latour, 1987b: 96).

For Serres, then, it is the parasite, which enables contingency and transformation in the world. The role of the parasite is to feed near the table where the dinner takes place and to innovatively utilise the information stolen from the dinner conversation. The social scientific parasite cannot be an atomistic modernist individual, but an assemblage of distributed agencies (see Garud and Karnøe, 2003), in many ways resembling a cyborg. This is very much keeping with Latour, who has long argued that scientific production is a function of human and non-human assemblages (see also Bennett, 2010; Callon et al., 2009; Salter, 2016).<sup>6</sup> The point with Serres is to appreciate how cybernetics offers critical vocabulary and material for identity work: no dualisms, no perfect communication, plenty of irony. Heterogeneous assemblages in the process of

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5 Serres also links classical atomism to the contemporary complexity sciences, when highlighting the role of minimal deviation (clinamen or 'atomic swerve', concept Lucretius apparently borrowed from Epicurus, who used it to solve the problems with atomistic worldview, namely how complex systems evolve and how free will is possible) that sets up a catastrophic chain of collisions (Serres, 2007: 72; cf. Skrbina, 2007: 52).

6 According to Bennett (2010: 22-23), assemblage in a distributed agency is defined as 'groups of diverse elements, of vibrant materials of all sorts [...] able to function despite the persistent presence of energy that are able to function despite the persistent presence of energy that confound them from within. [...] The effects generated by an assemblage are [...] emergent properties, emergent in that their ability to make something happen is distinct from the sum of the vital force of each materiality considered alone'. In Haraway's (1991) cyborg ontology the agency comprises heterogeneous assemblages in the process of becoming, always moving and forever unfinished.



becoming, always moving and forever unfinished. The dangers of using cybernetics as a utopian stepping stone are already well documented elsewhere (Kline, 2015; cf. also Tiqqun, 2001). Studying cybernetic organisations also saves one from having to decide from the outset what research seeks to explore (see Cooper and Law, 1995; Haraway, 1997). The figure of the parasitical cyborg is in line with these propositions.

## Conclusions

This essay argues that the shock of the Anthropocene can catalyse critical thought, although the traditional critical research(ers) could be facing defeat in the Arctic universities. The possibilities for critical scholarship are contextual and the Nordic context can be experienced in different ways and the Anthropocene is also scholarship-in-the-making (Swanson, Bubandt and Tsing, 2015). I have tried to express how I view the possibilities for critique in the Arctic university and I've prioritised Serres because, to my mind, his work suggests possible positions within and passages through the Anthropocene.

Arguably we want science that is subordinated to the needs of citizens and communities. But because of the shock of the Anthropocene one has come to realise that there are indeed other citizens of the earth, some non-human with different spatio-temporal scales, often existing in complex systems that are all shaped by the actions of man. With this in mind and to maintain a margin of hope, I think what is called for is meta-theoretical poetry performed by assemblages of critical researchers who identify themselves as parasitic cyborgs. This isn't as far-fetched as it might sound. Technoscience, with its vast resources, does not need critical social science in the Arctic knowledge infrastructures. But critical researchers here in the Arctic require technoscience's resources if we are to survive. So we have to learn to play the role of a parasite and Serres shows us the beginnings of the way.

Serres is an optimist who continues to chart possible passages for a better world after the Anthropocene, urging humanity to become renters instead of owners (2011). His work might unfetter the performative potential of critical Arctic scholarship. Unfortunately, some of his propositions seem somewhat quaint. The role he proposes might also be too demanding. It might even be too late to negotiate a new contract with nature on account of anthropological hubris (Hamilton, 2015). Or it could be that Arctic scholarship has already been assimilated by technocracy and the shock of the Anthropocene, in this sense, is yet another opportunity for profit maximisation and capital leveraging. These are all suitable reasons to reject Serres and might have paralysing effects.

Unfortunately, the situation also offers easy targets for those who wish to romanticise their own position as truly critical scholars. But the optimism of Serres can also offer us a margin of hope for the future science navigating in the Arctic passages, optimism that critical thinking rejecting the post-humanist figure of the parasitic cyborg might lack.

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