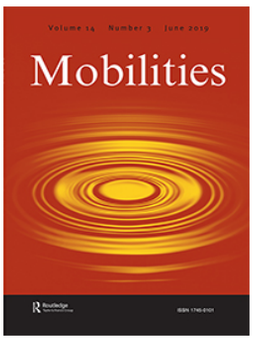

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David Chandler

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Forum 2: the migrant climate: resilience, adaptation and the ontopolitics of mobility in the Anthropocene

David Chandler

School of Social Sciences, University of Westminster, London, UK

ABSTRACT

While modernist or 'top-down', 'command-and-control' approaches to climate and migration worked at the surface or ontic level of the redistribution of entities in time and space, resilience approaches call for a different approach to mobility. These discourses construct mobilities that are more transformative; in fact, ones that question traditional liberal modernist notions of time and space and of entities with fixed essences. These mobilities do not concern moving entities in space but rethinking mobility in relation to space. Mobility then becomes more a matter of changing the understandings and practices relating to spaces and entities than of moving things from one place to another. Becoming 'mobile' thus would apply to the development of capabilities or 'response-abilities' to sense, adapt, recompose, repurpose and reimagine problems and possibilities; taking responses to crises beyond the static and binary conceptions of mobility and space.

KEYWORDS

Mobility; Anthropocene; resilience; adaptation; ontopolitics

Should I stay or should I go now?
Should I stay or should I go now?
If I go, there will be trouble
And if I stay it will be double
So come on and let me know
- The Clash (1982)

Introduction

While modernist or 'top-down', 'command-and-control' approaches to climate and migration worked at the surface or ontic level of the redistribution of entities in time and space, resilience approaches call for a different approach to mobility (for an extensive discussion of resilience as a distinctive governance regime see, for example, Grove 2018; Chandler 2014). These discourses construct mobilities that are more transformative, in fact; ones that question traditional liberal modernist notions of time and space and of entities with fixed essences. These mobilities do not concern moving entities in space but rethinking mobility in relation to space. Mobility then becomes more a matter of changing the understandings and practices relating to spaces and entities than of moving things from one place to another. Becoming 'mobile' thus would apply to the development of capabilities or 'response-abilities' (Haraway 2016, 2) to sense, adapt, recompose, repurpose and reimagine problems and possibilities; taking responses to crises beyond the static and binary conceptions of mobility and space.

CONTACT David Chandler d.chandler@wmin.ac.uk

The modernist framing understood space as an empty container filled with distinct autonomous parts, side-by-side as separate entities, without context or relation: it created a fictional world amenable to subject-centred human rule (Latour 2016, 7). As Benjamin Bratton states: 'Lines that are linked, folded, and looped become a frame, keeping things in or out ... The modern nation-state is itself also [a] function of a cartographic projection that conceives the Earth as a horizontal plane filled with various allotments of land' thus there is 'no stable geopolitical order without an underlying architecture of spatial subdivision' (Bratton 2015, 24). Modernist constructions thereby 'emptied out' space of its constitutional relational dynamics and replaced these by a 'universal spatial order based on mathematical formalization and geographic interchangeability': a 'groundless materialism' of 'false equivalences' that could be 'divided up like an algebraic equation' (Bratton 2015, 30).

For discourses of resilience and the ontopolitics of mobility, rather than the two-dimensional flat or universal space of modernity, there is an understanding of space as a product of inter-relationality. Therefore, as Doreen Massey noted: 'we understand space as the sphere of the possibility of the existence of multiplicity in the sense of contemporaneous plurality; as the sphere in which distinct trajectories coexist; as the sphere therefore of coexisting heterogeneity' (Massey 2005, 9). For contemporary discourses of resilience and adaptation, space, actively produced through plural interaction, is understood as a relational outcome, which can be mapped only through seeking to concretise it as a specific or unique set of contingent relations.

Resilience: three approaches

In discourses of resilience, a new ontopolitics of mobility emerges, which could be parsed heuristically into three differing approaches to resilience and adaptation. These could be seen as shifts from the modern or linear discourses of causality and of 'progress' – in which the Human is imagined as initiator or causal actor, working in the world of representation (a world of fixed determinations and relations) – to an increasing sensitivity to the inter (or intra-) active becoming of the world (Barad 2007). These three approaches are heuristically distinguished through borrowing and building upon Charles Peirce's framework of a material semiotic methodology (Hoopes 1991). Pierce's semiotic framing understands interactive life as pragmatic nested sets of interpretative becoming, putting humans on the same continuum as other forms of life (for a summary, see Stanford Encyclopedia 2010). In this way discourses of resilience and adaptation, viewed in the frame of ontopolitics, gradually fill-out an alternative way of thinking mobility: roughly drawn out, these three modes or approaches can be classified as 'iconic', 'indexical' and 'symbolic' resilience.

Iconic resilience

The first approach understands governance as recursive, governing the effects of previous actions and their unseen or unintended consequences through mapping or tracing relations and path-dependencies. Here, the appearance of problems no longer casts them as things to be dealt with in traditional ways, but rather they are constructed as 'signs' or 'signals' of a deeper, more complex, reality that can no longer be dismissed or ignored. Hence 'iconic' resilience: appearances signal the need to rethink accepted ways of governing. One example could be river or coastal flooding: in modernist or 'engineering' approaches the response would be to build higher sea walls or dykes and levees (Yarina 2018). However, in iconic approaches flooding would be seen as a sign of a larger set of relations that need to be taken into account rather than ignored. In fact, traditional approaches of problem-solving, that involve mitigation or adaptation, moving or staying, would be seen as artificial or 'coerced' resilience' not really paying attention to the problem as a sign of a deeper reality (Rist et al. 2014).

Thus, in ontopolitical framings of mobility, discourses of resilience enable more things to become visible or to be included. These are often termed the 'externalities' or 'unintended

consequences' of our actions, which then become the basis for adapting differently. The world becomes richer and more differentiated, leading to non-linear understandings of causality (Allen and Holling 2010). Neither dealing with the problem – through 'staying', walling off water sources, building dykes and 'normalising' rivers – nor the 'mobility' option – for example, the relocation of residents away from flood plains or constructing new housing schemes – deals with the problem itself. Flooding would merely be a sign that a problem existed and needed to be addressed. While iconic approaches begin to shift away from discussions of mobility, as much as they challenge 'technical', 'infrastructural' or 'engineering' approaches to problem-solving, they merely provide a speculative basis for alternative approaches, through following the feedback loops to prior actions understood to be in need of adaptive (recursive) management.

Indexical resilience

The second approach to the ontopolitics of mobility focuses on the capacity to see or to sense processes in their emergence, aspiring to increasingly real-time responsiveness, preventing crises through enabling effects to be mitigated or modulated, often through the use of new technologies such as Big Data and the Internet of Things. These approaches move beyond 'iconic' framings of resilience, which do not go beyond the appearance of the sign itself, as a lure to explore the deeper relationality of the world. 'Indexical' approaches seek to bring these relational processes to the surface, to see problems as they emerge rather than reacting to signs or signals after problems have already appeared. Indexical resilience does not merely rethink our relational practices but begins to see the world differently. Appearances are not merely signs or signals but become more meaningful forms of representation. Appearances become signs that stand in for other things, for us: this process is often termed 'datafication' (Cukier and Mayer-Schoenberger 2013). For example, dangerous gases in coal mines can become visible through the introduction of a canary; magnetic fields become visible through a compass; temperature changes through a thermometer. The development of tools and technologies such as the Internet of Things and Big Data enables learning through indexical thought: through correlation rather than theories of linear or non-linear causation.

Through correlation, processes come to the surface, so, for example, conflict or flu epidemics can be 'datafied' through social media and Google searches and environmental changes and related human and non-human mobilities can be sensed and detected through sensors and satellite scanning (see, e.g., Rothe 2017; Adams 2017). To pursue the example of flooding (above), while 'iconic' approaches direct attention elsewhere, indexical approaches intensify the appearance of the sign thereby enabling modulation around equilibrium. Rather than technical solutions (held to only make problems worse) or mobility solutions (equally evading the problem), indexical resilience works through the interpretation of signs as 'early warnings' enabling real-time responsiveness to problems: registering and indexing small changes in water levels, movements of other species more sensitive to water changes, data from elsewhere, or the use of computerised sensing or local community indicators (see, for example, Chandler 2017).

Symbolic resilience

While both 'iconic' and 'indexical' approaches to adaptation and resilience focus on adapting or modulating to mitigate or to prevent problems, the third approach, of 'symbolic' resilience, increasingly recasts problems as opportunities for learning and experimentation. The world becomes increasingly full of creative potential once we see problems rather as lures or invitations for becoming-with other actors and agencies through practices of speculative engagement, enabling new possibilities to unfold. As resilience-thinking becomes more at home with the end of modernist framings, the transformation of our understanding of mobility is held to enable new ways of engaging with the world, based on an ontology of processes of emergence and becoming,

rather than of causal relations between discrete entities. In these more affirmative discourses of 'symbolic' resilience, the world is full of meaning, but meaning is independent from the human as subject, residing in the becoming of inter (or intra-) active, inter-species life.

Mobile life, in fact, becomes so intensified that it is no longer possible to talk about 'problem solving' when the cuts and separations between 'inside' and 'outside' are no longer clear (Gilbert, Sapp, and Tauber 2012; Baldwin and Bettini 2017; Jackson 2014). In these constructions, mobility transforms governmental imaginaries, such that a world of becoming is without easily distinguishable entities, 'subjects' or 'objects/things', and thus migratory understandings and narratives become increasingly difficult to untangle. Such is the analysis that Wakefield forwards (this forum), where water, humans and Styrofoam bring out new inter-relations and transform subjects, the key point being that neither staying nor mobility are posited as a potential solution. In fact the categories themselves make little sense as staying is indistinguishable from mobility: problems are transformative. Life itself, as an ongoing process of becoming, undoes these modernist binaries.

The ontopolitics of mobility

The question posed for this forum is what does it mean to conceive of mobility as a crucial ontological category in the Anthropocene? One difficulty is that the Anthropocene as a framing paradigm is often conceived differently in various theoretical perspectives. How we conceive of the Anthropocene necessarily impacts on our conception of mobility and the work that it may or may not do. Perhaps it is best to clarify that, for the purposes of this contribution, the Anthropocene does not merely mean a litany of contemporary problems, from anthropogenic climate change to ocean acidification to species extinction. Problems and crises, leading to migration are not new. Rather, the Anthropocene is to be understood as a different framework through which problems are understood and addressed.

This contribution to the forum began by outlining the ontopolitics of mobility in resilience discourses to alert us to the fact that we could perhaps understand the Anthropocene as already here: as our present condition. Central to the Anthropocene is the implication of the end of the division between culture and nature: the ontological grounding for modernist assumptions of humans as active knowing subjects in a world available as a fixed, passive object or resource (Chandler 2018). This asserted overcoming of the division means different things to different people. However, any discussion of mobility in the Anthropocene would, of necessity, move beyond a modernist analytical framework - which (at best) goes no further than to study processes of human mobility within their specific, hybrid, socio-natural contexts – see, for example, Wakefield (this forum).

Much excellent work has been undertaken in this regard, highlighting context and relations, expressing the 'autonomy' of migration and understanding migratory processes as neither mechanical responses to economic, political and environmental change, nor merely as a matter of support for 'victims' (for example, De Genova, Garelli, and Tazzioli 2018; De Genova 2017; Taziolli 2017). However, when it comes to situating the discussion of mobility specifically in relation to the Anthropocene, the limitation with these constructions is that the focus is still very much with mobility as a matter of the movement of actors/subjects conceived to be clearly separated from the spaces through/in which they are moving: the mobility of the 'human'.

For Anthropocene approaches that take the conception of resilience as an opportunity to think beyond modernist constructions of the world, especially the binary of the culture/nature divide, work needs to be done on the ontological rather than the ontic level. Thus, the ontopolitics of mobility refers to more-than-human assemblages of adaptation after the end of the Holocene world, or in what Wakefield (this forum) calls 'the back loop' after modernist certainties. Resilience mobilities can be distinguished in terms of their comprehension of

contingent relations, which are constitutive of entities, no longer considered to be fixed and separate and merely changing their position in a flat distributive space.

Mobility in the Anthropocene

In my contribution to the forum, I therefore highlight that we need to move beyond the view of the Anthropocene as merely a context, space or a backdrop for migratory processes and practices – a more-than-human drama of the conditions of possibility for the mobility of actors and entities (see Serres 1995). What I wish to emphasise instead is what it might mean to think differently about mobility after the asserted end of the culture/nature divide. Thus, through discourses of resilience, I have briefly sketched out an alternative construction based on grasping the Anthropocene paradigm as one that calls forth an ontological rather than merely ontic politics of mobility. This now appears as one that carves out a much larger temporal shift in understanding.

Perhaps the best way to clarify this methodologically is to start with an imaginary of the distinction between the Anthropocene and the time before: the Holocene. The time of the Holocene is now often imagined as a one of unique climate stability where solutions to problems could safely assume linear causality and the modernist binary constructions of nature/culture could go largely unquestioned (see, e.g., Rockström et al. 2009). We are familiar with how the question of climate/environmental change and human/species migration was addressed in the Holocene.

In the Holocene, or in a modernist ontology, there were two ways of addressing the problem of climate and migration. The first was to move: migration was seen to be a possible solution. Human migration has followed changing climates as well as socio-economic changes so much so that some authors claim that, taking the long view, mobility is the 'normal condition' of human beings rather than fixity (Kardulias and Hall 2007; see also the kinopolitical perspective of Nail, this forum). The population shift from the 'Old World' to the 'New World' was a classic example of migration following population pressure and changes in land use in the late nineteenth century.

The alternative to moving was staying put: the development of science and technology and its application to agricultural productivity and landscape and land-use changes to facilitate population sustainability. This enabled populations to cope with climate/environmental change without migration. Holocene solutions to climate and migration were spatially and temporally differentiated; either populations migrated to 'new' or 'underpopulated' areas, or scientific and technological changes enabled 'progress' so that populations could sustain themselves *in situ* despite changing climate conditions.

One thing that we are often told about the Anthropocene is that the solutions that were available in the Holocene are no longer feasible (Dryzek 2015; Rockström 2016). As can be seen by the contemporary problems the refugee crisis is causing EU elites and attempts by the UN and other international agencies to encourage camps for internal displacement to prevent refugee flows, migration is increasingly less likely to be politically possible or to be encouraged as a form of mitigation or adaptation – notwithstanding all the talk about migration as a possible adaptation measure in the humanitarian discourse on climate change (Bettini 2014). The first aspect that highlights what is at stake in the shift from an ontic view of mobility in the Anthropocene is that the separations of spatial territorialisation are no longer considered paramount: 'there is no outside', 'there is no "away"' (Ghosh 2016, 26).

Mobility is not considered to be a solution, but rather to reproduce the problem. If migration could mitigate problems through moving populations (humans or other actors) somewhere else then we would not be in the Anthropocene, where what happens 'sticks' with us, like Styrofoam cups or plastic bags that stay in the environment and do not degrade in a human lifetime (Morton 2013, 60). Scientific and technological solutions at the level of mobility can no longer evade the problem through displacement to some other space. The second aspect of the Anthropocene is that 'pseudo-solutions' or 'coercive resilience', which try to prolong the status quo, are held to

merely store up greater problems for the future. Environmental change cannot be prevented or slowed through the amelioration of the problem through engineering 'solutions' that derive from developments in science and technology (Rist et al. 2014).

So, it seems clear that one thing that the Anthropocene concept excludes, when thinking about climate/environment and migration, is the possibility that 'human mobilities' can address problems through spatial mechanisms. As Dipesh Chakrabarty asserts, the Anthropocene is a 'species' problem: there is nowhere left to relocate to. The Holocene choices of development or relocation, in fact, went together as the exponential growth of the human population depended upon fossil fuels and artificial interventions in agricultural production – the forces which closed these options constituted the Anthropocene as therefore a 'planetary' problem, not merely a 'global' condition amenable to a (human-centred) political solution (Chakrabarty 2015, 50–55).

The modernist, or Holocene, binary of 'move or stay' cannot make any sense when considered from the perspective of the Anthropocene – i.e. the end of the nature/culture divide – because the spatial choice is merely a question posed at the ontic level of politics (where the Anthropocene goes unrecognised, reduced to the technical problem of climate change; Hamilton, Bonneuil, and Gemenne 2015, 9). The modernist conceptions both of moving 'away' and of 'staying' are thus problematised in the Anthropocene (see Wakefield, this forum). The Anthropocene concept works at the ontological level and the politics that relate to this level are necessarily ontopolitics.

Conclusion

All three ontopolitical approaches to resilience in the Anthropocene disrupt modernist discourses of spatial mobility and migration. Modernist debates at the formal or ontic level of spatial politics/global politics with its concerns of sovereignty, rights and citizenship appear to shift into the background. This disruption raises issues of the stakes involved in the shift to ontological framings of life itself as mobility, which, at the same time, remove mobility from discourses of problem-solving. While these ontopolitical framings challenge the spatial distinctions of place, the temporal linearity (the liberal telos) of cause and effect, and the focus on discrete entities as the subjects or agents of mobility, they appear to have a double-edged (or pharmacological, Stiegler 2018) nature: potentially limiting transformative horizons but also opening up alternative possibilities. Perhaps as Bruce Braun and others have argued (Braun 2015), the task is to ensure that the radical potential of these discourses is not, in fact, captured by neoliberal capitalism.

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