12 **Explaining the diversity of resilience in the climate change and security discourse**

Resilience in translation

Delf Rothe

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12 Explaining the diversity of resilience in the climate change and security discourse

Resilience in translation[1]

Delf Rothe

Abstract

The concept of resilience has taken the hearts of Western practitioners and decision makers in development, environmental, or security policy by storm – or so it seems. In the looming "climate of complexity" produced by unfolding global warming, the idea of resilience, as the ability of systems and communities to autonomously recover after shocks and to adapt to changing environmental conditions, appears promising. Yet, different versions of resilience co-exist and compete with each other in diverse political arenas and fields of practice. As a result, resilience resists any conceptual fixation – making it hard for policy-makers and practitioners to agree upon a common definition of resilience. This essay seeks to explain the diversity of resilience by looking at processes of its "translation". The translation of resilience here refers to both the transfer of the concept from one discursive field to another as well as the adoption and reinterpretation of resilience through actors in concrete resilience projects on the ground.

Keywords: Climate change, discourse, resilience, securitization, United Kingdom.

[1] An earlier version of this chapter has been published as Rothe, D., 2017: Climate Change and Security: From Paradigmatic Resilience to Resilience Multiple, Routledge Handbook of International Resilience: Policies, Theories and Practices, Chandler, D. and J. Coaffe, eds., Routledge, 171–184.

Introduction

Resilience – a concept with a long history in disciplines such as psychology or ecology – has recently made it to the desks of practitioners and policy-makers in policy fields including development cooperation, civil protection, or climate change adaptation. In the current "climate of complexity" (Rothe 2016), the promise of resilience, as a capacity to recover from shocks and to adapt to changing environmental conditions, appears promising. Yet, while everybody seems to talk (about) resilience, there is hardly any consent about the concrete meaning of resilience (Anderson 2015; Simon and Randalls 2016). It remains controversial whether resilience is a property of infrastructure, a capacity of individual persons or collective entities, or a property of systems. Resilience may refer to a status (being resilient) as well as to a process (becoming resilient) to structures or individual actors (Bourbeau 2018). Furthermore, it is disputed whether resilience can be promoted and induced through external intervention or if only the systems or subjects themselves can enhance their own resilience (through processes of learning and self-adaptation). Finally, the normative evaluation of resilience in the literature differs considerably. Many commentators in critical IR understand resilience as a neoliberal form of security that would give up the liberal promise of protection and shifts the burden of protection from the state to vulnerable populations (Evans and Reid 2014; Joseph 2013b). For these authors, resilience represents a form of post-politics, in which "[t]he classic quest after the 'good life', once a starting point for both an art of living and the art of governing, is replaced by the more minimalist, almost realpolitik, striving for adaptive survival" (Vrasti and Michelsen 2017). Others argued instead that resilience might represent a progressive alternative to traditional (national) accounts of security (Corry 2014). Certain forms of resilience might also work in counter-hegemonic ways – for example if understood as the resilience of oppositional groups to state repression – or as a vehicle for the transformation of ingrained social structures (Bourbeau and Ryan 2017).

In short, resilience is everything else than a coherent or fixed program. Rather, it is a flexible concept that becomes translated as it moves between different discourses and policy areas (Grove 2013). In this chapter, I draw upon this observation to seek answers to two related research questions: First, I seek to explain why resilience could recently become such a prominent political concept. Second, I shed some light on the ontology of resilience by exploring reasons for its heterogeneity. While scholars often acknowledge the ambiguity of resilience (e. g. Walker and Cooper 2011), it is seldom taken into account analytically (for an exception, see Simon and Randalls 2016). Advocates as well as critics of resilience tend to present it as a rather coherent discourse or even a political paradigm, thereby blurring contradictions and fissures in the actual political practices of resilience.

In this contribution, I decidedly focus on the ambiguity of resilience and argue that it is exactly the concept's capability of being easily translated from one policy field domain to another that (at least partially) explains the current political prominence of resilience. I establish this argument by tracing the translation of resilience as it travels between different sub-fields of the discourse on climate change related security risks (in the following climate security) in the United Kingdom (UK). The climate security discourse in the UK represents an extreme case to study the translation of resilience. Besides the USA, the UK is the country in which resilience produced the strongest resonance and found its way into all major strategic documents (Joseph 2013a). Thus, one should assume to find a rather coherent governmental take on resilience; and secondly, I will decidedly concentrate on governmental discourses and practices.

The essay proceeds as follows. In the next section, I outline what I would call the *paradigmatic approach to resilience*. I develop an alternative to this paradigmatic approach drawing on Stephen Collier's (2009) concept of topologies of power. In section three, I turn to the empirical case study and start with tracing different storylines of climate security in the UK discourse. I show how each of these storylines draws upon a different understanding of resilience. This approach of studying the deep structure of resilience in the UK discourse is complemented by an analysis of resilience practices in the governance of climate-security risks. I study how resilience becomes translated and reinterpreted by different actors in the climate security field. Finally, I argue that resilience emerges as a "floating signifier" (Laclau 2005; Laclau and Mouffe 1985) – a malleable concept that is flexible enough to bring together diverse practices of governing an insecure future in a complex governmental landscape of UK climate-resilience.[2]

From paradigmatic resilience to resilience as translation

The existing International Relations (IR) literature on resilience often identifies the latter as a defining paradigm of the world-political present – clearly demarcated from earlier forms of security, which has recently become dominant in international politics. According to this reading, the rise of resilience would represent a clear break from earlier – liberal, modernist – forms of security. Resilience is rather understood as a

[2] In discourse theory, a floating signifier refers to a signifier that lacks a clear, unambiguous referent and thus means different things to different people. The semantically open nature of floating signifiers allows different political projects to appropriate it and fill it with their own meaning. Examples in political discourse are sustainability or freedom.

single political discourse, ideology, or paradigm. I would call this understanding of resilience as a single political discourse, ideology, or paradigm a paradigmatic approach to resilience. The paradigmatic approach to resilience revolves around a set of assumptions that will be briefly summarized in the following paragraph[3]. First, the paradigmatic approach stresses that resilience draws on a particular ontology of complexity (Chandler 2014). Deduced from complexity theory, adaptive systems thinking, and cybernetics, resilience would problematize the possibility of non-linear change and the connectivity of coupled social-ecological systems. Translated into the field of security politics, resilience thus problematizes the threat of abrupt, unpredictable change resulting from the complex interaction of globally interconnected networks (Kaufmann 2013, 58). Second, authors in the critical IR literature have argued that resilience thinking dwells upon an epistemology of limited knowledge. In other words, policies that follow a rationale of resilience accept the inherent limit to prediction and forecasting in a world of complexity and radical contingency (Boas and Rothe 2016). Other than classical defense policy or disaster risk-management, resilience hence "does not imagine specific scenarios against which defenses (or pre-emptive attacks) must be prepared" (O'Malley 2011). Third, at the level of policy this leads to the acceptance that certain risks and dangers are ultimately inevitable (Zebrowski 2013). Hence, resilience would shift the focus of security policies from the prevention of external threats or risks to the inner vulnerabilities of populations, systems and individuals at risk (Chandler 2013, 218). Fourth, a resilience paradigm is criticized for shifting the burden of security policy from the state to the vulnerables themselves, which are consequently made responsible for their own protection (Evans and Reid 2014). As a result, national and international security policies are increasingly modeled along the lines of a neoliberal (market-based) approach, which seeks to activate the self-help potential of vulnerable populations (Joseph 2013b). Finally, such policies would require a particular type of institutional design based on flat hierarchies and connectivity – as paradigmatically expressed in the Anglo-Saxon notion of network governance (Rothe 2016).

The works I have summarized under the label of a paradigmatic approach have provided valuable insights for our understanding of resilience as a political concept and its problems. In particular, these studies have highlighted the convergence of complexity and neoliberal economic thinking and helped to make sense of a changing understanding of security and a related shift of responsibility from the state to society and the individual (Chandler 2013). Such an understanding of resilience as a mode of self-government under complexity is certainly important – for example, it undergirds many self-improvement manuals that have been quite successful in the mid-2000s

[3] Please note that I use the notion of paradigmatic resilience as analytical ideal type. I do not claim the following list of resilience attributes to be exhaustive. Also, any single publication in the described fields does not necessarily draw upon all five assumptions on resilience.

(O'Malley 2011). However, as I argue in this paper, it represents only one understanding of resilience among many. Understanding resilience as a discourse or paradigm in singular bears the problem that inner contradictions and fissures of resilience practices are downplayed or overlooked (Brassett et al. 2013).

Opposed to an understanding of resilience as a single historical paradigm, I would propose an understanding of resilience as a multiple (Simon and Randalls 2016). Such an approach stresses that there is no single, coherent concept of resilience. The notion of *multiple resilience* implies that there is more than one rationality or logic of resilience but less than many (Mol 1999). In other words, the meaning of resilience is ambiguous but not arbitrary[4]. I argue that the tendency to overlook ambiguities and fissures in resilience thinking partly goes back to the prominence of Foucauldian governmentality approaches in the critical literature on resilience (Corry 2014). Instead of studying the discourses and practices of resilience in an open manner, critical scholars on resilience often rely upon a fixed notion of governmentality as a particular neoliberal form of political power drawing on technologies of self-responsibilization and government at-the-distance (Bulley 2013; Joseph 2013b). As a result of this perspective, critical studies of resilience in the past thus too easily abandoned any understandings of resilience that do not fit the image of resilience as a neoliberal form of self-government (see Bourbeau 2018).

As a way to avoid the harmonization-tendency inherent in governmentality approaches to resilience, I follow Stephen Collier to conceptualize the relation between power and knowledge as a complex topology of power. Collier starts from the observation that Michel Foucault in his later work turned away from his earlier interest in totalizing epochal analyses of power-knowledge formations (or governmentalities) to increasingly "examine how existing elements are taken up and recombined" (Collier 2009). Although Foucault described the emergence of neoliberalism as an economic and political rationality, he never saw neoliberalism as overarching rationality of government. In the words of Collier:

One technology of power may provide guiding norms and an orienting telos. But it does not saturate all power relations. Rather, it suggests a configurational principle that determines how heterogeneous elements – techniques, institutional arrangements, material forms and other technologies of power – are taken up and recombined (Collier 2009).

For the present case, this implies that the concrete form and substance of resilience is subject to a context-specific, (re-)combination of ideas and political practices:

[4] Olaf Corry has pointed to the existence of counter-hegemonic projects like the grassroots Transition Towns Movement who have articulated a social-ecological notion of resilience that opposes the official neoliberal version of resilience by the UK government (Corry 2014, 263). While this is a valid point, I would even go beyond this argument and claim that ambiguity is an inherent feature of the official, governmental resilience discourse in the UK itself.

"the space of problematization is a topological space, and thinking is a driver of recombinatorial processes" (Collier 2009). A topological analysis of resilience thus seeks to map multiple versions of resilience and studies how resilience rationales and practices are constantly translated, reinterpreted, and recombined in different contexts. Rather than as a new paradigm of governance, resilience should thus be understood as a configurational principle, which allows for a reconfiguration and translation of already existing political programs, ideas, and policies.

In contrast to earlier discourse analyses of resilience, I move from a diachronic to a synchronic perspective[5]. On the one hand, the sample of empirical sources comprises conceptual defense and security documents: the National Security Strategies (NSS) from 2008, 2009, and 2010 and the Strategic Defense Review (SDR) 2010. On the other hand, the sample includes concrete policy documents on the implementation of climate change and security related policies of the Ministry of Defense (MoD), the Foreign and Commonwealth Office (FCO) and the Department for International Development (DfID), think-tank reports, and NGO publications from the period 2006–2014. Additionally, 12 expert interviews have been conducted with representatives of key institutions in the three fields. In a first methodological step, I looked at the deep structure of the resilience discourse in the UK. Here, I was not so much interested in the actual discursive struggles (that is what is being said about resilience by whom) but in the question of how competing understandings of resilience are framed through collective symbols including metaphors, iconic symbols, analogies, and tropes such as metonymy, pars-pro-toto, or catachresis (Hajer 2006). I traced how these collective symbols become condensed into competing storylines. In a second methodological step, I turned away from this discursive deep structure to governmental programs and practices. I studied how resilience becomes implemented, practiced, or enacted in different institutional contexts. To theorize resilience in a way that accounts for its heterogeneity, I finally distinguished between three privileged translations of resilience. The analysis was operationalized with the qualitative data analysis software MAXQDA.

The UK climate security discourse

Already in 1980s, different voices in academic in political discourse raised concerns over the possible security implications of global environmental change. The UK played a crucial role in the emergence of this discourse early on (Rothe 2016). For example, as early as in the late 1980s then-Prime Minister Margaret Thatcher called climate change

[5] That is from a conceptual history or genealogy of resilience thinking towards the study of the multiple meanings of resilience in present discourses.

a major threat to humanity and warned that "it is life itself that we must battle to preserve" (Carvalho and Burgess 2005). However, articulations like these remained occasional and in the 1990s public interest in the problem of global warming dropped – and so did worries about its security implications. In the mid-2000s, however, spurred by a series of disasters like the severe flooding in the UK in 2000 or the 2003 heatwave that killed tens of thousands across Europe, climate security returned to the agenda of high politics (Rothe 2016). Policymakers such as Tony Blair or then-Foreign Minister Margaret Beckett promoted the storyline of climate change as a threat to international security, in part as a strategy to re-establish the UK as a major international power (Carvalho and Burgess 2005). In 2007, the UN Security Council discussed the issue of climate change for the first time in its history – on the initiative of the UK Foreign and Commonwealth Office (FCO). At that time, there was broad consent amongst government officials, strategic think tanks, NGOs, the media, as well as bureaucrats from different UK departments about the security risks of climate change for the UK. By the late 2000s, these different actors increasingly took up the concept of resilience as a way of addressing the security implications of climate change. Resilience soon became one of the most prominent concepts in the discourse (Boas and Rothe 2016).

However, by taking a closer look at the discourse on climate security in the UK, one can observe that the latter is anything but a coherent, consensual debate. While all mentioned actors share a common orientation towards the potential security implications of climate change, they articulate the climate-security link in quite different ways. In doing so, they draw upon competing understandings of resilience. In the following, I distinguish three competing strands within the climate security discourse, each of which uses resilience in a considerably different way.

Climate risk and traditional security

A first, influential strand of the UK climate security discourse frames climate change as a threat or risk to the national security of the UK (Cabinet Office 2008). Voices falling in this category commonly express concerns over two types of risks for the UK that emerge from climate change (Cabinet Office 2009). First, primary risks are those potential harms for the UK that directly result from global warming, for example, a rising risk of flooding due to sea level rise or an increasing probability of dangerous heatwaves. Secondary risks, on the contrary, refer to the possibility that climate change could exacerbate tensions in other parts of the world, which might then affect the UK indirectly through an increase of irregular migration or the spread of instability. Of crucial importance in this threat narrative is the historical self-understanding of the UK as an island and a major marine power (Cabinet Office 2009). On the one hand, this

self-image implies that the UK faces particular vulnerabilities both because it is surrounded by water and because it is globally interconnected – and hence particularly threatened by instabilities overseas. Many actors from the development and security field, including think tanks and DfID and FCO bureaucrats, are not so much concerned with the direct impacts of climate change but with the "consequences of consequences" (Smith and Vivekananda 2007). Such actors paint a picture of an increasingly dangerous environment for the UK in a warming world. This picture is then linked to the idea that the UK is a global hub in a globally networked world. As a result, it is feared that "it will be difficult for the UK to isolate itself from the global economic and geopolitical shocks that look certain to be experienced in a warming world" (Government Office for Science 2011). The focus on the consequences of consequences thus makes the vulnerability of the "global South" against climate change – and especially in the UK overseas territories and former colonies with which it still holds close ties – an immediate concern for the UK.

To cope with the primary and secondary risks posed by climate change, the UK has implemented a comprehensive climate impacts strategy that includes for example periodically conducted national climate risk-assessments (Defra 2012). These risk assessments provide the necessary information for the implementation of the UK's National Adaptation Program (NAP). The executive summary of the 2012 National Climate Risk Assessment report argues:

> Although we do not know the likelihood future changes in the UK's climate, we know enough to present a range of possible outcomes, which can be used to inform adaptation planning. For this purpose potential climate risks to the UK have been categorized according to their magnitude, 'confidence' and the 'urgency for action' (Defra 2012, xi).

Unlike the paradigmatic approach to resilience outline above, resilience here does not imply an end of the attempt to calculate and predict future risks at all. Quite the contrary, the compilation of all sorts of potential climate risks to the UK in comprehensive "risk registers" here becomes the basis of a climate resilient UK. This intimate relation between risk calculation and resilience is perfectly expressed by the Secretary of State for Environment, Owen Paterson, in his introduction to the 2013 NAP Report "Making the country resilient to a changing climate"(Defra 2013). In this report he argues that

> […] Britain's expertise in areas such as weather forecasting, flood modelling, infrastructure and insurance are already coming to the fore to prepare us for the kinds of events we might see more often. Indeed, the UK is already one of the global leaders in this industry of the future (Defra 2013, 1, emphasis added).

To sum up, climate conflict and risk storylines, first of all, identify linear causalities between climatic changes and (direct as well as indirect) security risks for the UK. These storylines focus on risks at a particular point of time in the future (e. g. the UK in 2030, 2050, or 2070) and seek to render them present through risk assessment of an expanding UK "industry of the future". In this reading, the UK's "industry of the future" and the foresight products that it provides become a crucial source of climate resilience. However, the anticipation of future climate risks and related knowledge practices are complicated by methodological and epistemological uncertainties, i. e. the uncertainty about the right methods to calculate future developments. Resilience thus becomes a function of predictive capacities and becomes embedded within a broader anticipatory governance of climate risks.

Climate catastrophe

A second strand in the UK climate security discourse (re)presents climate change as a looming global catastrophe (Methmann and Rothe 2012). These articulations of the climate security relationship differ from a classical understanding of security and the logic of risk outlined above with respect to the temporality and spatiality of the constructed threat. Temporally, the notion of climate catastrophe draws upon the idea of a movement towards a final endpoint – that is a global ecological collapse (Aradau and van Munster 2011, 10). This idea of a linear, teleological movement is for example expressed through the notion of the tipping point. A tipping point represents a temporal boundary, beyond which the gradual, linear change of a system (such as the global climate system) becomes non-linear and irreversible:

> Many assume that climate change will be a slow, linear process toward a moderately warmer future. However, scientists agree there are likely to be elements of the climate system that function like light switches – rapidly changing to a qualitatively different state (Mabey 2011, 16).

Sometimes the catastrophe is even elevated through apocalyptic or religious symbols (Methmann and Rothe 2012, Skrimshire 2014). Spatially, such representations of climate change turn away from the UK as central reference object and instead frame climate change as a fundamental threat to whole humanity or the planet as such. Thus, the catastrophe here poses a universal threat, an absolute endpoint both in temporal and in spatial terms. Spatially, the focus of security shifts from the national to the international or global level (see Foresight 2011b). Temporally, the notion of catastrophe puts a strong focus on mitigation: the catastrophe – in this case dangerous climate

change – has to be prevented at any cost. This strand of the climate security discourse hence calls for strong leadership and political steering from decision makers. In the case of climate security, such a call for sovereign action is often articulated by Earth System Scientists and the notion of planetary boundaries (Steffen et al. 2015, see also Hardt 2018). However, this capability of the political sovereign to meet this role as leader in climate mitigation is limited both by the global nature of the threat and the epistemological uncertainties inherent to the scientific capacity to detect and predict tipping points of a complex and interlinked Earth System (Steffen et al. 2018).

To sum up, a discourse of climate catastrophe draws upon an ecological teleology: the development towards an endpoint (non-linear climate change), which must be prevented at any cost. At the same time, there are epistemological limits to the detection of existing tipping points in the Earth system (Mayer 2012, 171). Mitigating the catastrophe requires an active engagement with the environment – here international climate governance – to shape a desired future and prevent dangerous pathways of climate change, for example, by building resilience overseas.

Climate complexity

A third strand of climate security discourse understands climate change as a complex and unpredictable phenomenon. According to this rationale, there are not only methodological and epistemological but also ontological limits to knowing climate change. The UK national security strategy from 2013 is a good case in point, which starts from the assumption that we are now living in an "age of uncertainty" (Cabinet Office 2010b, 3). Global climate change is considered as one major source behind the rising global uncertainty, which nowadays shapes the UK security environment. Illustrative is a MoD report that presents climate change as a "ring road issue". A ring road issue is understood as "a driver that is so pervasive in nature and influence that it will affect the life of everyone on the planet over the next 30 years" (Cabinet Office 2010a, 6). Climate change is not only perceived as a global threat (as in the discourse of climate catastrophe) or as a trend that poses a series of direct and indirect risks to the UK, but increasingly also as a complex system whose secondary impacts are literally unpredictable.

What is striking in the UK security strategy and related security documents is the emerging resonance between climate research and security thinking. Climate systems research has informed notions of complexity, which led to a rethinking in current security policy (Kavalski 2011, Mayer 2012). Furthermore, strategic thinkers and security officials have articulated climate change itself as a complex security threat: "The climate is a complex system and most forms of human interaction exist in the realm of complexity. […] Ultimately, complexity itself is a significant risk factor that needs to be

addressed explicitly" (Mabey 2011, 91). In the UK security discourse, the belief that we are living in an age of uncertainty went hand in hand with a shift away from classical security policies that seek stability and control. Following the slogan "stationarity is dead", the British think tank E3G for example argues, "[p]reparing for the future means rejecting stationarity as a guide to future outcomes. The first presumption should therefore be that all critical systems will be vulnerable without adaptive measures" (Mabey 2011, 103). In this reading, protective security policies must be as versatile as the perceived threats: "In an age of uncertainty, we need to be able to act quickly and effectively" (Cabinet Office 2010b, 5). As a result, the complexity discourse fuels skepticism towards centrally planned political steering. Hence, in line with the critical literature on resilience, climate complexity storylines promote forms of decentralized governance that shift the burden of security policy from the state to the individual citizen, to local communities, or to the private market (Cabinet Office 2008, 59).

In sum, a discourse of climate complexity stresses the uncontrollability and radical uncertainty of the climate system. In short, in an age of uncertainty, the past does not provide any yardstick anymore to predict future events and trends. Thus, knowing or actively shaping future developments is beyond the scope of human actors. Contingency is not considered a feature of the representation of the world anymore but a feature of the world itself.

Articulations of climate resilience in the UK discourse

In this section, I present the findings of a comprehensive discourse analysis of key policy documents and think-tank reports in three political fields crucially related to the climate change and security discourse: the strategic community, the field of civil protection, and development and foreign policy. Additionally, 12 research interviews with representatives were conducted[6]. The aim of the analysis was to show how linkages between climate change and security – and with it the concept of resilience – become rearticulated and translated by practitioners and political representatives in different fields. The results of this discourse analysis are summarized in Figure 1. The figure shows the most prominent discursive concepts, or signifiers, in different domains. The size of each concept illustrates its relative prominence in each context while its position on the map and the proximity to neighboring signifiers represents its relation to other concepts in the discourse. The map was derived from a comprehensive discourse analysis of the empirical material with MAXQDA. It does not represent a semantic network based on a quantitative or bibliometric analysis. Figure 1

[6] For a further discussion of the underlying methodology, see next section as well as Rothe 2016.

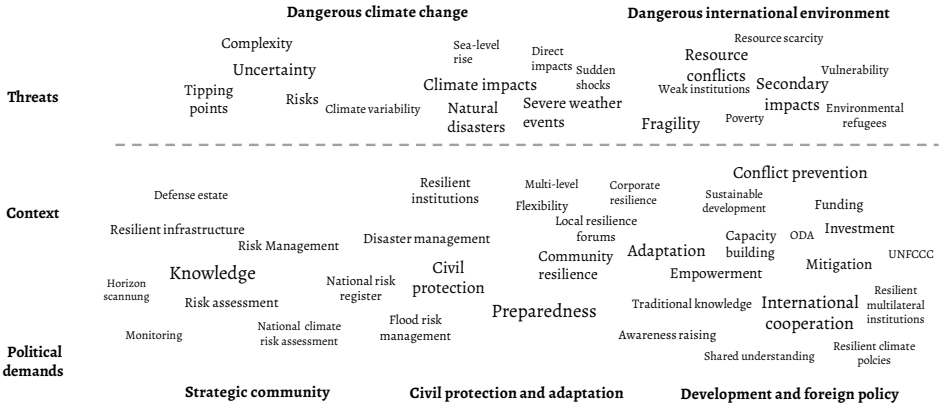

Figure 1: Articulations of climate resilience in different institutional contexts.

gives an overview of the complex landscape of climate security in the UK. It presents the key demands, concepts, and practices that are linked to resilience in three different contexts: 1. the strategic community, i. e. actors from the MoD as well as security-related think tanks, 2. civil protection and climate change adaptation; and 3. development and foreign policy[7]. These demands, concepts, and ideas are legitimized through the identification of a whole range of potential problems, risks and threats (upper part of the figure). These are presented as external, antagonistic threats for the inside community of the UK.

For practitioners and officials in the strategic community, climate security is mainly a function of the resilience of the defense estate against unfolding climate hazards. Resilience promotion is based on all sorts risk assessment and "horizon scanning" activities (Cabinet Office 2009, 44). Thus, resilience is basically about the generation of knowledge about vulnerabilities and ways to overcome them. For example, the UK Ministry of Defense expresses the hope that research on (low-carbon) technologies in the military will increase the resilience of the defense estate under the premise of future climate change (MoD 2010b). The need for research and the promotion of forecasting technologies is mainly justified through the storylines of an impending climate catastrophe and the complexity of the earth system outlined above, which stress the existence of tipping points and uncertainties about future climatic changes.

In the context of civil protection and adaptation (center of Figure 1), resilience is mainly articulated in line with the demand for enhancing adaptive capacities of local communities and individuals. In this context, resilience requires a "multi-level,

7 Figure 1 is based on a qualitative analysis of the UK climate security discourse.

multi sector, bottom-up approach" (Cabinet Office 2009, 90) that would integrate self-responsible communities, businesses, and individuals into UK climate disaster management. In line with the UK's broader "Big Society" agenda (Cabinet Office 2010a, 49), private actors are supposed to become active self-reliant agents that do their bit in the creation of a resilient UK. The overall rationale of the NAP – that is "a society which makes timely, far-sighted and well-informed decisions to address the risks and opportunities posed by a changing climate" (Defra 2013, 9) – perfectly expresses this rationale. Demands for preparedness and self-responsibility are based on storylines of climate risk.

On the right side of the figure, you find expressions of climate security and resilience in the field of development and foreign policy. Actors from the Department for International Development (DfID) or the Foreign and Commonwealth Office (FCO), as well as peacekeeping NGOs have linked climate security to notions of good governance, functioning state structures, and to the principle of sustainable development (Smith and Vivekananda 2007, Smith and Vivekananda 2009). For these actors resilience in the "Global South" is a key concept to produce climate security. In this context, it refers to adaptation funding that includes private sector investments in developing countries as well as Official Development Assistance (ODA) to educate and activate vulnerable communities in the global South. These policies and demands are legitimized against the backdrop of climate conflict and risk storylines that highlight mainly the secondary impacts of climate change. The dangerous "other" is made up by the global South and its problems with fragility, instability, ongoing conflict, and migration.

Three translations of resilience

The different versions of the UK climate security discourse did not simply translate into a clear set of policy measures and governmental programs. As I show in this section of the paper, when bureaucrats and practitioners in the policy fields of development, security or civil protection, adopt climate security storylines, they rearticulate and reinterpret them against the backdrop of their own established routines, conventions, and beliefs. As a result, there is nothing like a single coherent UK climate security strategy. Rather, one can observe the emergence of a complex governmental landscape of climate security – a creative amalgamation of heterogeneous political ideas, instruments, and practices. The malleable concept of resilience provides some orientation for all these practices without subsuming them under an overarching political rationality. Exactly because resilience is so malleable and ambiguous, it becomes possible for actors from very different contexts and backgrounds to translate it into their own language and mindsets. At the same time, however, its meaning is

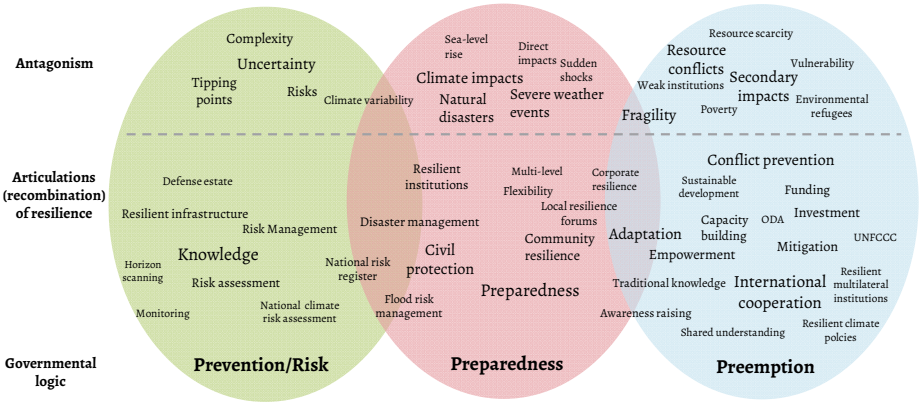

Figure 2: Three logics of resilience in the governmental landscape of UK climate security.

not completely arbitrary. Drawing upon a typology of types of governing the future by Anderson (2010), I suggest that it is possible to distinguish between three ideal-typical translations of resilience that each follows a distinct logic of security: precaution, preemption, and preparedness (see Figure 2). I use Anderson's typology to derive three analytical ideal types that help structuring the complex landscape of the climate security discourse in the UK.

A first translation of climate resilience is one of prevention. Hereby, I refer to the attempts of security actors, governmental scientists (Government Office for Science 2011b), strategic think tanks (DCDC 2010, DCDC 2014), and NGOs (Mabey 2011) in the UK strategic community to anticipate or calculate future climate change related risks. The cooperation and interaction of these actors in workshops, meetings, and joint projects leads to the growing convergence of methods and practices between climate sciences on the one hand and security policy on the other. The currency of resilience understood as prevention is knowledge, which circulates between the described actors in the form of risk registers, future scenarios, or risk matrixes (MoD 2010a). Scholars and think tank members produce this future knowledge through a whole range of monitoring, risk assessment activities, and "horizon scanning" activities (Cabinet Office 2009, 44).

A good case in point to demonstrate how the logic of resilience as prevention works in practice is the MoD's Climate Impact Risk Assessment Method (MoD 2010b). The aim of this approach was to preserve UK's defense capabilities by increasing its resilience to "[…] the risks to global security presented by the complex geopolitical interactions resulting from a changing climate, as well as the risk to our own establishments and equipment from the impacts of climate change" (MoD 2010b, 2). For this,

the UK MoD compiled a comprehensive "Climate Resilience Risk Register" (MoD 2010b, 5) that lists, prioritizes, and scores any current climatic risk for MoD's defense estate or infrastructure. In a second step, the MoD combines this risk register with the scenarios developed in the UK Climate Projections 2009. Whereas the paradigmatic approach to resilience outlined above understands the rise of resilience as a reaction to the apparent failure of conventional risk-management methods due to the limits of knowledge in a world of complexity, the example of the MoD proves that the opposite is the case in the strategic community. Comprehensive knowledge of future risks is seen as the prerequisite of resilience. As put by members of the UK think tank International Alert, a resilient society "[…] understands the risks it faces because it has the scientific capacities to do so" (Smith and Vivekananda 2007, 33). Consequently, resilience becomes translated into a liberal-modernist discourse, which stresses the role of technology and science for human progress.

In a second institutional context – that of civil protection and climate adaptation – resilience becomes translated into a discourse of preparedness (Chandler 2014, 56–57). Actors working in this field link resilience to their established routines, conventions, and practices; thereby tearing down departmental dividing lines (Adey and Anderson 2012). The overall rationale is to empower and include local stakeholders and to remove the barriers, which are faced by the institutions of the state in an "Age of Complexity" (Cabinet Office, 2010a, 2010b). Following the ideal of a "multi-level, multi sector, bottom-up approach to resilience planning" (Cabinet Office 2009, 90), state actors seek to incorporate programs to integrate businesses, communities, and individuals into climate adaptation and disaster preparedness activities. The rationale behind this is that these actors would be "better placed than government to understand and respond to the needs of the local community before, during, and after an emergency" (Cabinet Office 2010a, 26). For example, the establishment of "Local Resilience Forums" seeks to initiate a continuous dialogue between local citizens and stakeholders as well as regional administrations and the civil contingencies secretariat on a regular basis (Adey and Anderson 2012, 108). Resilience here transcends popular distinctions between interventionist centrally planned and decentralized market-based forms of governance by integrating public and private actors. The work on preparedness, to sum up, links the practices of very different actors – from disaster planners to private sector consultancies, to businesses, and to communities. It helps establishing novel relations between actors and circulates tasks and responsibilities between them.

A final translation of resilience in the climate security landscape adheres to a logic of preemption. In the field of foreign and development policy, resilience mainly follows the aim of mitigating secondary risks from climate change for the UK. In line with a logic of preemption, actors from the DfID and the FCO actively intervene in the UK's

international environment to shape a desired future through diplomacy and development policy. This is perfectly expressed by the notion of an "active diplomacy" (FCO 2006), which builds upon the assumption that:

What happens abroad has never mattered more for our security and prosperity. In an age of rapid global change, the task for Government is to seek to understand and influence the world for the benefit of our people (Blair quoted in FCO 2006, 3).

The UK's active diplomacy seeks to mobilize the international community to join the UK's ambitious climate mitigation efforts. For example, the UK sponsored debates on climate change in the UN Security Council followed this rationale – that is to raise awareness and to activate the most affected countries (Government Office for Science 2011b, 90). At the same time, UK development policy becomes increasingly reoriented towards support of climate change adaptation and resilience building efforts in developing countries. DfID and related NGOs seek empowering local stakeholders and communities in vulnerable regions. The rationale is that increasing the resilience of overseas communities will prevent perceived risks for the UK— such as an increased influx of migrants due to climate change (DfID, FCO and MoD 2011a). A good example is the UK International Climate Fund, established in 2010, which has the aim of funding adaptation and mitigation projects in vulnerable countries and regions (DfID, FCO and MoD 2011b). Climate funding here becomes reframed as investment in resilience and an instrument to produce stability abroad (DfID et al. 2011a). Another good example of how resilience becomes translated into development policy in line with a logic of preemption is the UK strategy to deal with climate-induced migration. The seminal UK Foresight report on "Migration and Global Environmental Change" (Government Office for Science 2011a), for example, argues for proactively promoting planned migration and resettlements in climate hot-spot regions. The underlying logic is that planned migration could be used to preempt uncontrolled and unplanned migration flows from vulnerable regions that might reach the UK (see Government Office for Science 2011a, 17). Other than suggested by the paradigmatic approach to resilience outlined above, the latter here does not imply the end of interventionism, political steering, and planning. Instead, investment in resilience becomes a possibility for government intervention in the world in spite of complexity and uncertainty. Resilience becomes translated into a liberal-modernist discourse with aim of intervening and shaping the world. Rather than autonomous, self-organizing systems, it addresses political subjects that can be influenced, activated, and shaped.

Conclusion: Resilience in translation

As I have shown in this essay, resilience has been translated and reinterpreted by multiple actors in different contexts of the UK's governmental strategy to address dangerous climate change. My study shows that resilience is characterized by a multiplicity and ambiguity that allows resilience to function as a boundary concept that bridges different political communities. Drawing on a topological understanding of power, I was able to sketch a more differentiated picture of the climate resilience landscape in the UK. In this heterogeneous landscape, resilience managed to become a dominant political concept, not despite but due to its ambiguity. Exactly because resilience can be translated in very different contexts and because it allows actors in these contexts to reinterpret resilience in relation to their established routines and conventions, resilience could become a hegemonic demand in UK the climate security field. For some, it resonates with a neoliberal – or better post-liberal – complexity discourse and mistrust in central government. At the same time, however, it easily adopts and integrates diametrically different voices and re-interpretations of resilience (Boas and Rothe 2016). Resilience assembles political actors in a spontaneous and disordered way and links heterogeneous sets of practices and ideas in temporary networks and assemblages. It does so without following any broader political ideological or strategy. I would argue that it is exactly this ability of resilience to forge temporary assemblages rather than stable discourse coalitions or political communities, which makes up the strength of resilience in our age. The UK certainly represents an extreme case given the ubiquity and the popularity of resilience in the political and public discourse. Thus, the question arises whether the findings of this study are generalizable beyond the context of the UK. Further research is required to give a definite answer to this question.

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