Ecological Security

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In recent years, the idea that issues such as climate change might pose a threat to security has become prominent, and environmental issues more broadly have featured significantly in debates about redefining security since the 1980s (Mathews 1989; Myers 1989). Traditionally, approaches to the relationship between security and environmental change have asked whether and how environmental issues constitute a security threat. This is a bad place to start, for two reasons. First, it suggests that we as analysts can establish criteria for defining security at an abstract level, and measure issues (whether climate change, population displacement or terrorism) against that criteria. Such an approach is problematic. It ignores the social construction of security: the fact that different political communities understand security in different ways, and the same political communities change the way they understand security over time. A fixed and abstract definition of security is ultimately inconsistent with the need to come to terms with the meaning given to security in practice (see McDonald 2012). This is important because of the politics of security: the ways in which different depictions of security and threat serve to encourage particular sets of responses to those issues in practice.

Second, and of particular relevance for those interested in the politics of linking environmental issues with security, the effects of this linkage are not simply about whether environmental issues are defined as a security threat: whether they are 'securitised'. Paradoxically, the view that the designation of threat defines the politics of a response to it is evident among both advocates and sceptics of an environment-security relationship. For advocates, defining environmental issues as security threats means approaching these issues as 'high politics', ensuring political urgency, prioritization and funding usually associated with traditional security threats (see Hartmann 2008). Securitization, in this view, is ultimately a good thing. For sceptics, securitization is problematic because security has a powerful and sedimented association with defence and the state (eg Deudney 1990), and/or potentially enables the suspension of 'normal politics' and the pursuit of frequently illiberal emergency measures. The latter is, of course, a key concern of so-called Copenhagen School theorists of securitization (eg Buzan et al 1998; Wæver 1995).

Yet ultimately, the political implications of linking environmental issues like climate change with security are determined not by the simple act of making this link- of securitising. Rather, what matters in political and normative terms is the *way* security itself is understood. Specifically, different discourses of security- conceptions of whose security matters, from what threats, which agents are responsible for providing it and through what means- have radically different implications in terms of the practices they encourage. While a discourse orienting towards national security might encourage adaptation and even military preparedness for potential conflict associated with the effects of environmental change, a discourse orienting towards human security would encourage mitigation strategies and a focus on the threats facing vulnerable human populations (see McDonald 2012; 2013). In these senses, linking climate change and security can have radically different effects depending on the way in which security is understood, and especially different answers to the question of *whose* security matters.

Ecological Security

Written by Matt McDonald

Using the example of climate change, this paper is divided into two sections. In the first I outline the contours of different discourses of security as applied to climate change, illustrating the ethical choices upon which these discourses are based and pointing to the practices they encourage. In the second I make a case for an ecological security discourse. Simply, if a linkage between an issue like climate change and security is to be made, some discourses are better than others in terms of the defensibility of the principles they are informed by and the responses they suggest. Here I suggest that the most defensible ethical foundation for this linkage is one that focuses on ecosystem resilience and the rights and needs of vulnerable contemporary populations, future generations and other living beings. While such a discourse confronts important dilemmas and powerful political impediments, it is one that rests on a stronger moral and philosophical foundation. And perhaps more importantly, it is a discourse arguably necessitated by the scale of the threat posed by climate change and the changing nature of our relationship to the environment in the context of the Anthropocene: the contemporary geological era in which humans have altered the earth system upon which humans themselves depend (see Steffan et al 2007, as well as Corry, Harrington and Rothe in this volume).

Discourses of Climate Security

There is a range of different ways in which environmental change generally, and climate change specifically, could be and have been linked to security. The most powerful and prominent of these discourses is that of 'national security', with the focus here on the possibility that climate change might undermine the sovereignty or territorial integrity of the nation-state. Such a vision has found its way into national security strategies throughout the world, has been advanced by public-policy oriented think tanks (especially in the USA), and has achieved a prominent place in academic debates (see Brzoska 2008; Busby 2008; CNA 2007).

In such a vision of security, the state retains its central role as the referent object (the 'whom' in 'security for whom'); the state and potentially its military are key agents of security; threats are associated largely with conflict or border integrity arising from climate change; and means of providing security focus on adaptation to manifestations of threat (Busby 2008). Perhaps the starkest example of this discourse, and its limitations, was a 2003 Pentagon Report prepared by Schwartz and Randall (2003) examining the potential national security implications of an abrupt climate change scenario for the United States. In the report, the authors made the claim that some relatively self-sufficient states like the US might seek to build more effective boundaries around the state to prevent those displaced by climate change – environmental refugees – from entering.

This example clearly constitutes a perverse response to climate change. Victims of climate change are presented as potential threats; the focus is exclusively on adaptation, not mitigation; there is no focus on the rights of vulnerable populations; and no genuine possibility – consistent with the Realist tradition in which this discourse is located – for international cooperation to address this global problem (see Dalby 2009). Certainly, this approach would endorse the concerns of those sceptics opposed to the securitization of climate change.

More recently, a range of efforts have been made to link climate change to international security. Here, the emphasis is on the possibility that climate change might undermine international stability or challenge the normative basis of an international society. The nature of the climate threat is its possible contribution to large-scale humanitarian crises, population displacement and even international conflict. This was the subject of debates in the UN Security Council in 2007 and 2011, and this discourse has also been taken up by think tanks and NGOs (see Smith and Vivendreka 2007). Most recently it has been prominent in linkages made between climate change and conflict in Syria and even the emergence of Daesh (see Baker 2015; Strozier and Berkell 2015), building on earlier linkages between climate change and conflict in Darfur (see UNEP 2007; Ki Moon 2007). The referent object of security is international society; threats are threats to international order and stability associated with climate change; agents are largely defined in terms of key international institutions; and means of security are ultimately cooperative international efforts focused on a combination of mitigation and adaptation (see Purvis and Busby 2004).

The emphasis here on the possibility of international cooperation, the suggestion of some role for prevention (i.e. mitigation) and the general sense that a moral universe extends beyond the nation-state suggests progress from a national security discourse. Yet this discourse remains closely linked to the preservation of the state system, a

Ecological Security

Written by Matt McDonald

position with potentially problematic ethical foundations and implications. Of course at a practical level, an international state system has – at best – responded inadequately to the problem of climate change to date, with current mitigation commitments inadequate for preventing dangerous climate change and global climate cooperation erring consistently towards the lowest common denominator in international negotiations (see Stevenson and Dryzek 2014; Eckersley 2017). At worst, the international system has helped drive processes of global climate change through endorsing and enabling the neoliberal economic order, which has driven rapid industrialization and over-consumption. While a step forward in linking climate change and security, then, we might ask whether the international system is fit for purpose in addressing climate change, and whether the vision of international society in this international security discourse is ultimately one worth preserving (see McDonald 2013).

A more radical climate security discourse focuses on climate change as a threat to human security. For advocates of this discourse, climate change already poses a threat to human security, defined in terms of peoples' survival and their capacity to pursue meaningful, sustainable lives in the face of climate change (see Barnett et al 2010). This approach has been more marginal to international practice than the above discourses, but has been advanced by NGO groups, was explicitly endorsed by the UNDP (2007) and in a 2009 UN General Assembly discussion of the climate change-security relationship, and was the subject of a chapter in the most recent IPCC report on the impacts of climate change (IPCC 2014). The referent object in this discourse is people; threats are those that challenge the lives, livelihoods and choices of people; means of security focus on mitigation but with some place for adaptation; and a wide variety of actors – from states to international institutions to civil society groups – are seen as potential security agents (see O'Brien 2006).

In orienting towards the direct and immediate effects of climate change for people, and focusing our attention on vulnerable human populations, the human security discourse advances a more ethically defensible position in the context of climate change. The practices it encourages are also focused on preventing the worst manifestations of climate change through urgent mitigation action, and reducing the threat for those most vulnerable. Yet there are clear dilemmas or challenges here. First, it is difficult to assess and redress sources of human insecurity in the context of climate change given both varied populations with possibly competing interests, and acute uncertainty and complexity with regard to climate change and its effects. Second, and in the context of agency, a focus on vulnerable human populations requires international institutions and the most powerful states to act as agents for others and beyond their own immediate self-interest. Both of these challenges apply to the ecological security discourse, to be discussed.

Clearly, this discourse constitutes a progressive approach to the climate-security relationship, one whose orientation towards vulnerable people is far more defensible than approaches that value the defence of institutions or already privileged populations, and whose practices orient primarily towards mitigation rather than adaptation alone. Yet it still draws the line at contemporary human populations, in this context failing to recognise obligations to future generations or other living beings. And in endorsing a humanist approach, arguably this discourse fails to recognise and respond to the changing nature of our relationship to the environment in the context of the Anthropocene (Grove 2014). A case can therefore be made for a more radical climate security discourse still – one oriented towards ecological security.

Towards Ecological Security

Ultimately, existing discourses of 'climate security' orient towards the preservation of contemporary forms of human communities, whether defined in national, international or genuinely *human* terms. Some of these discourses are clearly more progressive than others in encouraging action oriented towards genuinely addressing the problem itself; recognising obligations to vulnerable communities; and even suggesting the need for urgent and rapid change to redress the challenges posed by climate change. Yet the climate crisis arguably suggests the need for yet more radical reorientation of ethical principles and urgent sets of practices than that articulated in the above discourses. And the narrative of the Anthropocene serves too to point to the need to fundamentally re-examine the distinctions between humanity and nature that arguably underpin all the discourses of security noted above. But if a shift towards a genuinely ecological security discourse appears needed, what are the key contours of this approach to climate security?

Ecological Security

Written by Matt McDonald

An ecological security discourse is one that orients towards the resilience of ecosystems themselves, in turn enabling the protection of the most vulnerable across time, space and species. Resilience is defined in terms of the capacity of ecosystems to sustain life, and retain their organizational structure and function in the face of perturbation and change (see Barnett 2001; Adger et al 2011). Urgent mitigation action is prioritised in this discourse but with some space for adaptation to help preserve the functionality of ecosystems. All actors with the capacity to generate avoidable harm have responsibility in terms of agency, depending on their capacity and contribution to the problem. And while endorsing broad principles, such a discourse must be defined in terms of a commitment to dialogue, reflexivity and humility: ecosystem functionality is too complex for highly prescriptive accounts; universal principles must be reconciled with local knowledge, understanding and values; and reflexivity is clearly necessary to prevent this discourse from becoming a repressive or misanthropic orthodoxy. What we are talking about here, ultimately, is a set of principles that might be defended as an appropriate basis for actors to view and approach the climate change-security relationship, with the actions this encourages necessarily context-specific.

Such a discourse has not been prominent in either academic debate or political interventions linking climate change and security. Of course, this may reflect the fact that it has a limited constituency among those with power (see Barnett 2001:121), and that we can clearly advocate progressive approaches to climate change without recourse to the language of security. Yet as the climate security link is increasingly made in academic and policy circles, with climate change featuring in UNSC debates and in national security strategies of states throughout the world (Scott 2015), it is important to examine the form and likely implications of this linkage. In this context, we need to consider the contours of a more progressive approach in terms of both the principles upon which it is based and the practices it encourages. Simply, if the 'securitization' of climate change is becoming more common, we cannot ignore the climate-security relationship. Instead, and reflecting the political significance of security (see Browning and McDonald 2013; Wæver 1995), we need to ask how these linkages are made, whose security is considered important, what a progressive linkage (with defensible principles and progressive implications in practice) might look like and what prospects exist for such a discourse to be articulated, embraced and even institutionalised.

A shift towards the embrace of an ecological security discourse in the context of climate change might be difficult to imagine, but it might be one necessitated by a number of factors. First, it is difficult to justify an exclusive ethical focus on contemporary human populations, especially those limited to particular spatial areas. Drawing on holistic ethics and some insights of ecological perspectives (eg Naess 1989) and critical political ecology (see Eckersley 2005), an ecological security discourse challenges the idea of limiting our ethical boundaries to currently living human populations and encourages us to consider the rights and needs of others – now and into the future – who rely on the continued function of those ecosystems. Second, and related to this, the new reality of the Anthropocene encourages us to revisit the relationship between humanity and the conditions of our own survival. The Anthropocene arguably requires us to revisit the separation between humans and nature central to contemporary political thought and action, and recognise that we can no longer orient our security towards the conservation of the status quo (see also Mitchell 2014; Grove 2014).

There are, of course, profound challenges and dilemmas associated with this discourse. If our focus is ecosystem resilience in the face of change, means of security would emphasise mitigation but potentially extend to controversial practices focused on adaptation and stop-gap measures, including geoengineering. Dilemmas here are immediately apparent. First, such projects are frequently advocated by those who want to support a continued role for fossil fuels. Second, pursuing geoengineering strategies can involve the search for a climate change 'silver bullet', rather than profound changes necessary in the way we live (see Dalby 2015). And third, the scale of complexity and uncertainty that is a defining feature of ecosystem functionality makes it exceedingly difficult to be certain about what the implications of our interventions will be and therefore what practices we should pursue (see Cudworth and Hobden 2013). This becomes even more complicated when trying to weigh potentially competing interests across populations, species and over time.

Even if we are confident about what sets of practices an ecological security discourse would encourage, it clearly has a limited political constituency and limited political traction. If it is difficult enough to get states to cooperate with other states to solve a problem that affects them, some might suggest it is impossible to imagine how an approach oriented towards other living beings or future generations will find its way into meaningful public debate (Barnett 2001). And

Ecological Security
Written by Matt McDonald

finally, the tendency to articulate universal principles must confront the challenges of negotiating with local practices and localised understandings of ecosystems themselves.

All of the above do represent profound challenges in making sense of what an ecological security discourse might look like and even whether it is defensible. But the extent to which these dilemmas are particular to this discourse should not be overstated. Even national security discourses have to come to terms with uncertainty and complexity in terms of assessing where future strategic threats might come from and how state resources should be used to prepare for these, for example. The dangers of reconciling universal principles with local contexts are all too familiar to advocates of international security, whose attempts to manage peace operations must always negotiate this divide (Paris and Sisk eds. 2009). And in trying to combine a case for change with the need to enlist powerful actors to be agents of that change, human security discourses always risk being coopted by those institutions without fundamentally reorienting their practices or the basis upon which they make decisions (see Christie 2010). And perhaps obviously, political limits to change confront all those advocating change, almost all the time.

Yet we have clearly seen major changes in dominant understandings and practices of security over time, from the redefinition of sovereignty as the responsibility to protect to the endorsement of nuclear disarmament. These should serve as reminders that change can and does happen, and advocates of ecological security might find bases for hope in the embrace of principles like precaution, common but differentiated responsibility, debates arising around the Anthropocene and the global, long-term and ecological orientation of much of global civil society mobilization. And by linking climate change and security, the profound nature of the challenge posed by climate change arguably compels us to think in new ways about what security means and how it might be realised.

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Ecological Security

Written by Matt McDonald

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