For an Assemblage-Based Conception of Climate Change

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Résumé
Ce travail soutient que les paradigmes dominants des relations internationales (RI), qui tendent à opposer de larges catégories dichotomiques d'actants (c'est-à-dire États et non-États, humains et non-humains), sont inadaptés à l'analyse du changement climatique en tant que phénomène des RI. Il propose plutôt une ontologie du changement climatique inspirée de la théorie des assemblages telle que formulée par Bennett (2005). Après une brève introduction et une définition des termes, le texte démontre les limites des approches dominantes des RI pour analyser le changement climatique, puis met en évidence la pertinence de la théorie des assemblages comme approche alternative. Il conclut que la théorie des assemblages constitue une approche précieuse, susceptible de compléter, voire de remplacer, certains éléments de la recherche en relations internationales.

Mots-clés: Changement climatique, théorie des assemblages, relations internationales.

Abstract
This paper argues that dominant international relations (IR) paradigms, tending to pit broad dichotomous categories of actants against one another (i.e., states and non-states and humans and non-humans) are inappropriate for the analysis of climate change as an IR phenomenon. Instead, it proposes an ontology of climate change derived from assemblage theory as laid out by Bennett (2005). After a brief introduction and definition of terms, the paper demonstrates the inadequacies of the dominant IR approaches for analyzing climate change, followed by a demonstration of the pertinence of assemblage theory as an alternative approach. It ultimately finds that assemblage theory is a valuable approach that could complement or potentially replace further elements of IR scholarship.

Keywords: Climate change, assemblage theory, international relations

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Introduction

Climate change is among the most important international issues of contemporary politics. The evidence of its significance is compelling; the global surface temperature in 2011-2020 was 1.1°C above where it was in 1850-1900, and the trend continues to have intensifying consequences (IPCC, 2023). Climate change is highly complex; it arises from various activities from around the world, it has disparate impacts on different groups regardless of their role in contributing to greenhouse gas emissions, and the solutions require collective action at the international level. This tests the limits of the central premises of classical international relations (IR) scholarship. Specifically, statism and anthropocentrism are challenged, as more-than-human ontologies are showing themselves to be more comprehensive manners of viewing climate change (Fox, 2023).

This paper aims to answer the following question: what approach to conceptualizing climate change is most ontologically approriate for IR scholarship? The dominant approach is that of anthropocentrism, the tendency of IR scholars to make humanity the focal point of analysis when considering the causes and consequences of the phenomenon. However, anthropocentrism is flawed in that it constructs a categorical distinction between humans and the natural. Humans are seen as rational, free, agentive beings, in contrast to the inert natural world whose subjugation to the human is therefore justified (Tokay, 2023). Taylor (1981) argues that "humans are claiming human superiority from a strictly human point of view, that is, from a point of view in which the good of humans is taken as the standard of judgement" (p. 212). The human-centric approach is discursively counterproductive because, "instead of recognizing that human interests are tied up with and depend on nature's interests, [it] pits them against each other" (Tokay, 2023, p. 365). Alternative approaches have been proposed as a result. For example, biocentrism holds that all organisms have intrinsic moral value because they are alive (Taylor, 1981). Ecocentrism argues that moral value can be attributed to whole ecological systems (Tokay, 2023). In the case of climate change, where causes, consequences, and actants are complex and diverse, these approaches do well to expand the scope of their analysis beyond humans.

In this paper, it will be argued that an assemblage-based approach presents a more ontologically appropriate manner of conceptualizing climate change for IR scholarship than the dominant approaches. Bennett (2005) defines an assemblage as follows:

> An assemblage is, first, an ad hoc grouping, a collectivity whose origins are historical and circumstantial, though its contingent status says nothing about its efficacy, which can be quite strong. An assemblage is, second, a living, throbbing grouping whose coherence coexists with energies and countercultures that exceed and confound it. An assemblage is, third, a web with an uneven topography: some of the points at which the trajectories of actants cross each other are more heavily trafficked than others, and thus power is not equally distributed across the assemblage. An assemblage is, fourth, not governed by a central power: no one member has sufficient competence to fully determine the

> consequences of the activities of the assemblage. An assemblage, finally, is made up of many types of actants: humans and nonhumans; animals, vegetables, and minerals; nature, culture, and technology. (p. 445)

This approach differs from alternatives in that it attributes agency, the power to create and change conditions, both to its actants and to the networks of actants itself. To prove the thesis, two central dualities in IR scholarship will be analyzed: (i) states and non-states and (ii) humans and non-humans. The characteristics of assemblages laid out by Bennett (2005) will be applied to demonstrate the relevance and value of the chosen theoretical framework. This paper will take the final element of Bennett's definition, the diversity of actants, as given due to the breadth of the categories under study. It will focus instead on the first four elements of her definition in the coming analysis.

States and Non-States

States

States are often seen as the primary unit of analysis in IR scholarship (Raustiala, 2001). Teschke (2002) argues that modern states emerged with the foundation of the first capitalist economic system, embedding into international relations a pursuit of the optimization of economic interests. States and the tools they employ therefore play an important role in shaping the behaviour of other actants. For instance, Geloso (2022) highlights that subsidies are often directed at fossil fuel producers in ways that "encourage wasteful consumption, undermine the competitiveness of renewables and new energy technologies" (p. 353). Public policy is found to have quantifiable impacts on how firms and individuals make their choices. In this sense, viewing climate change as anthropogenic is a simplification that overlooks structural and institutional (i.e., state-driven) factors (Geloso, 2022).

In terms of responses to global warming, Mitchell (2001) highlights the importance of the Framework Convention on Climate Change (FCCC) in shaping what he refers to as the "climate change regime" (p. 227). As the direct result of state-level negotiation and cooperation, it establishes guidelines for climate change mitigation efforts and delineates differences in commitments toward climate change action in different regions. Clearly, states are significant actants in the realm of climate change. Yet, states bear anthropomorphic qualities (Mitzen, 2006). Thus, state-centrism faces many of the same pitfalls as anthropocentric views of climate change. If one is to avoid the pitfalls of anthropocentrism, the scope of one's analysis must be expanded beyond the anthropomorphic to include other actants.

Non-States

The state-centric approach limits the acknowledgment of the importance of non-state actors. Non-governmental organizations (NGOs), for instance, have a role in setting the international agenda, raising climate awareness, advising policymakers, applying political pressure, holding governments accountable, and assisting in the implementation of policy (Raustiala, 2001).

The United Nations (UN) is a non-state actor of great importance in climate policy. Nationally Determined Contributions (NDCs) are key embodiments of this fact.

Through the Paris Agreement, member states are subject to a variety of reporting mechanisms and the establishment of emissions reduction targets every five years, all of which are managed by the UN. This extends beyond mere diplomacy; for many, these NDCs are translated into legally binding domestic targets. The lens of state-centrism is ill-fittingly rigid as a means of understanding climate change due to the importance of non-states. As a result, scholarly understandings of climate change must be able to reconcile the simultaneous and interrelated roles of states and non-states.

Assemblage of state and non-state actants States and non-states both provide valuable yet incomplete accounts of climate change phenomena. Thus, it is logical to turn to an assemblage-based view that combines elements of each. The definition of an assemblage is highly suitable to framework. Firstly, states and non-states can be imagined as an ad hoc grouping. The nuances of this particular network of actants arose because of an existential threat to life on Earth. One can hardly imagine the establishment of the UNFCCC or the Intergovernmental Panel on Climate Change (IPCC), two actants with substantial influence on state behaviour, outside of these historical circumstances. The existence of strong energies and countercultures is present here as well; humans and non-humans, sovereignty, discourse, and other phenomena exist beyond the scope of states and fore demands a more holistic ontology.

definition of an assemblage is the presence of an uneven topography and distribution of power. This idea evokes the United States (U.S.), a country among the world's heaviest emitters of greenhouse gas emissions and one of the largest producers and consumers of oil (U.S. Energy Information Administration (EIA), 2022). Many systems rely on the US, whether economic, social, political or otherwise, that if they were to dramatically change either their production or consumption of emission-heavy goods, the impact would be global. Among non-state actants there is an analogous phenomenon; not all independent advisory boards are as influential as the IPCC, for instance. Political decision-making and its outcomes are affected by various structural power inequalities.

The final element of the definition, the fact of not being governed by a central power, is also informative. While the role of the UN is non-negligible and has grown as climate change politics has evolved, it does not always quite govern states and non-states in a strong sense. Whereas the Kyoto Protocol was a top-down 'hard laws' with modest success, "the Paris Agreement is 'soft' in terms of voluntary commitments, but 'hard' in terms of legally binding open-ended phase-out goals" (Popovski, 2018, p. 41). When one considers the importance of external non-state actors, the place of the United Nations as a central governing agent is further debilitated. Overall, while conceptualizing climate change through the lens of state or non-states in isolation has some merit, applying the core qualities of assemblages to the same phenomenon elucidates the entanglements at the heart of the issue.

Humans and Non-Humans

Humans

Anthropocentrism in climate change literature is a logical framework given their

role in generating emissions. Kiciński and Chaja (2021) write that "many fields of human activity, especially including the world energy stands before the necessity of an immediate revision of previous, and traditional ways of development and reassessment of priorities" (p. 5), highlighting their importance in shaping climate change. Furthermore, not only do humans cause these phenomena, but they also feel their effects. This is true of weather events and droughts, as well as air quality-related concerns. Lelieveld et al. (2019) suggest that "major reductions of anthropogenic sources [of emissions] are needed to save millions of lives" (p. 7192).

Human influences are also visible in policy responses. State leaders, negotiators, and policymakers are largely responsible for how human collectives respond to climate change, and therefore for the trajectory of emissions over the coming decades. While looking at carbon pricing through the lens of states is a viable approach, it can also be seen as price-based economic policy aimed at changing how humans consume emissions-intensive goods. From a bottom-up perspective, one can also look to climate activists and social movements as humans influencing the path of public policy.

Non-humans

As has been argued, a strictly human conception of climate change is necessarily incomplete; non-humans have undeniable roles to play. For instance, greenhouse gases, industry, capitalism, and other such non-human and structural actants are primary causes of climate change. Likewise, the global nature of climate change is such that its impacts are felt by all, whether human, animal, or non-human beings without consciousness (Pereira & Saramago, 2020).

Even without consciousness, non-humans can reject human knowledge systems. Callon's (1984) Actor-Network Theory demonstrates that while humans may attempt to "translate" the world of humans and non-humans into strictly human terms through language and ill-fitting definitions, subjects can reject the definitions imposed on them, which are often misrepresentative. In the context of climate change, it becomes clear that a lens that strongly favours humans in scholarly portrayals of the non-human world is necessarily incomplete. The human inability to effectively mitigate climate change and counteract the negative effects of capitalism and industrialism are evidence of this.

Assemblage of human and non-human actants

Epistemologically and ontologically, the relationship between human and non-human is different from that between states and non-states due to the difficulties of conceptualizing the non-human world in human terms. The complexity of these interactions renders this dichotomy all the more conducive to an assemblage-based conceptual framework, and the following paragraphs will demonstrate the applicability of the first four elements of Bennett's definition of an assemblage.

When considering climate change, the fact of sharing the planet demonstrates the circumstantial drive behind the relationship. From here the ad hoc nature of the associations between humans and non-humans becomes clear. Earlier analysis elaborated on the constructed nature of

humanity's dominance over the non-human. Strong energies and countercultures are present here as well, systemic entities whose origins are beyond the realms of the strictly human and non-human, and yet which have profound impacts on how the two realms interact. Further pertinent examples of this are economic superstructures such as capitalism that define modern human activity and have shaped how humans have imposed themselves on the non-human, while not being elements of the strictly human or non-human world.

The uneven distribution of power is a cardinal characteristic of human/non-human dynamics. Among humans, income inequality and vulnerability to climate change vary across social groups. Additionally, humans typically subjugate and instrumentalize the non-human. For instance, agricultural practices are significant sources of greenhouse gas emissions, and they rely on humans dominating plants, animals, and technology. Similarly, the absence of a central power is present in this assemblage, in spite of humanity's attempts to establish itself as the dominant force. Actor-network theory proves that humans and non-humans alike can reject the definitions and relationships imposed on them by human knowledge systems.

On the whole, among the main novelties of the assemblage approach to this particular IR dichotomy is the attribution of agency to not only non-human actants, but to assemblages of humans and non-humans. It is important to keep in mind that non-human agency does not imply human innocence. Bennett's (2005) distributive theory of agency takes the focus of analysis away from blame, rather putting emphasis on how actants and their agencies interact (p. 464). Given the entangled nature of climate change, such a holistic understanding is crucial.

Conclusion

The preceding analysis of two central bifurcations in IR scholarship, (i) states and non-states and (ii) humans and non-humans, demonstrates that an assemblage-based approach presents a more ontologically appropriate manner of conceptualizing climate change for IR scholarship than the dominant approaches. To view climate change from the lens of either of the two sides of these dichotomies in isolation will necessarily have incomplete ontological understandings of climate change. Furthermore, a bridging of these two sides forms an assemblage that conforms well to Bennett's definition. An assemblage-based conception of climate change is both possible and more ontologically appropriate than the dominant alternatives. It enriches the question of agency in ways that biocentrism and ecocentrism do not, allowing actants and their assemblages alike to have distinct agencies.

The work of this paper could be expanded; the scope was limited to two IR dichotomies for the sake of brevity, but further applications of assemblage theory could be fruitful. For instance, a more holistic approach seems possible under assemblage theory. If bridging the gaps between the two sides of the dichotomies studied here creates an enriched understanding of climate change, forgoing these dichotomies altogether could be fruitful. Similarly, one could apply the logic of

assemblages to other complex phenomena such as world governance and international human rights. If IR is to properly conceptualize global politics in all its complexity, it must necessarily take a holistic approach.

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