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## **Are European borders green? Notes on the need for research approaches and policy measures to deal with the reality of borders when implementing green transitions**

Borders play a peculiar role in the European Green Deal (European Commission, 2019). The deal's very *raison d'être*, as highlighted in its ensuing EU Climate Law (European Commission, 2020a), is the recognition that global/anthropogenic climate change is a cross-border challenge that cannot be solved by the single member states alone but requires cross-border coordination. Yet, very little mention is made of borders in the Green Deal itself, nor in ensuing policy papers and reports (European Commission, 2019; European Commission, 2020a; European Commission, 2020b; Climate Adapt, 2021). We must only point towards the fact that two of the key documents dedicated to enhanced green transition cooperation between states within the EU do not mention borders at all (European Commission, 2020c; European Commission, 2020d). Something similar is the case in relation to the UN's Intergovernmental Panel for Climate Change's (IPCC) Shared Socio-economic Pathways (Riahi et.al., 2017) providing the framework on an international scale for assessing the challenges facing five different societal approaches to the green transition; the framework does not confront borders as independent variables

When borders are considered in policy documents on the green transition, it is mostly in quantitative terms calling for increased cooperation across state borders without qualifying how borders themselves function as influential social and cultural variables. This approach to the green transition is arguably heir to the 'borderless world' paradigm (Ohmae, 1990; Strange, 1996), heavily criticized over the last twenty years in the field of border studies (Agnew, 1994; Balibar, 2009; Paasi, 2012) for its failure to account for the complex and conflictual reality of borders (Newman, 2011; Wastl-Walther, 2011). Rather, the approach reduces borders to formal and legal functions by presupposing them to be merely abstract lines that neatly determine jurisdictions. And even more worrying; the last 30 years have demonstrated that the borderless world paradigm is linked to its opposite, the ontology of borders as closed, static and linear (Paasi, 2012), thus standing in a dichotomic bind producing a binary logic of oppositions unable to account for the dynamic, complex and often conflictual reality of borders. Applying the borderless world paradigm to the green transition therefore entails the continuous risk of relapse into nationalist politics, which, according to the IPCC's framework of shared socio-economic pathways mentioned above, constitutes a worst-case scenario thwarting the green transition (Hausfather, 2018).

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Consequently, an inherent failure exists to adequately identify, address, and resolve the root causes of misalignments, tensions, and even conflicts characteristic of borders and bordering processes involved in the implementation of green transition policies. This is nothing new but has for long been the case both in mainstream research and policy discussions, where neoclassical economics and cognitive psychology are prevalent as complementary to the environmental natural sciences (Urry, 2011) and in critical studies that otherwise call for profound cultural and societal transformations (White et al., 2016). Recent impact and adaptation research confirms this inability to deal with the complexities of the cross-border effects of climate change (Benzie & Persson, 2019; Hedlund et al., 2018), not only in green transition policymaking but also within the field itself, a pillar in socio-economic green transition research. Self-critically demonstrating its reliance on a territorial framing that almost exclusively accounts for national and sub-national climate impacts and responses, the research emphasizes the need for extensive impact and adaptation studies into the more complex regional and global cross-border consequences of climate change (Benzie & Persson, 2019). The critique includes the EU's failure to address the multiscalar geographical spill-over effects of climate change that require specific adaption measures across borders (Benzie et al., 2019). This is peculiar in that the European Green Deal implies a broad range of changes inseparable from the societal impact of climate change and the Anthropocene in general, transformations that challenge several assumptions about space and, one would presume, thus also about borders (European Council, 2021; Lövbrand et al., 2020; Riahi et al., 2017). In any case, the mentioned self-critique does *not* address the underlying issue of borders as independent social and cultural variables. Once again, borders are reduced to abstract lines of juridical differentiation.

It is, thus, only very recently that the environmental social sciences have recognised the demand for responding to the intensified complexity of cross-border processes involved in the green transition, and, crucial as this recognition is, they do not address the underlying issue of the borderless world paradigm. Despite an emerging interest in Anthropocene geopolitics, systematic interdisciplinary research on how to deal with the complex, dynamic, and often conflictual reality of contemporary borders in green transitions is therefore largely missing. Rather, research appears to reproduce, what has for many years been recognised as a blind spot in international relations and related fields overlooking the complex and processual character of borders (Vaughan-Williams, 2009). And even when several disciplines related to border studies have discussed the role and function of borders in the face of climate change rather comprehensively – dominant among these are migration studies (e.g., Bates-Eamer, 2019; Jones, 2016), security studies (e.g., Chaturvedi & Doyle, 2014; Fagan, 2017), and international politics (e.g., Fall, 2011; Latour, 2018) – they are predominantly confined to perspectives adhering to their respective fields, thus, *a priori* restricted in relation to the interdisciplinary breadth and complexity demanded by the green transition. Also, in the broader context of “open borders”

and “no borders” discussions, climate sustainability tends to be secondary to specific disciplinary and political agendas rather than primary criteria for redefining their role and function (Bauder, 2015). Hence, inter-disciplinary and inter-sectoral research and knowledge of the complex and multifaceted role and function of borders in relation to the green transition remains largely missing.

Both policymaking and research into green transitions are influenced by the dichotomic bind between the borderless and closed border ontologies, thus failing to adequately correspond to the multifaceted reality of borders, which is to be transformed, also generating a lack of knowhow to implement adequate cross-border measures for a successful green transition. If such simplified Janus-faced approach keep dominating, borders are therefore more likely to obstruct than facilitate green transitions. We would argue an urgent need exists to ask the question of *how to facilitate an ability to deal with the complex reality of borders when implementing green transitions*. Occasioned by what essentially is the discrepancy between the dominating understanding of borders in research and policy, and the actual reality of border-practices, this question gives rise to one of the key challenges to achieve successful green transitions: The necessity to find a way to investigate the multifaceted, practical constitution of borders in these transitions, including the ability for continuous reassessment of their ontological underpinnings against the complex and transforming reality of borders. This calls for developing a novel theoretical framework and methodological approach able to: produce knowhow on how to identify and translate conflicting border ontologies in the landscape of the green transitions; account for the cross-border complexities and conflicts inherent to the implementation of green transition policies; and assess the value of individual border-practices to be able to align them with each other.

Facing the challenge, we argue, demands recognition that borders should be dealt with as practically constituted and according to ontological presuppositions transcending any restricted perspective. Here we rely on insights of recent border scholarship that – independently of climate research – has demonstrated how borders have dynamic and defining roles in the spatial, cultural, and social dimensions (Cooper & Tinning, 2019; Wilson & Donnan, 2012). They manifest complex and multifaceted influences and interests that are not unidirectional and mutually exclusive but function as intersections of concrete and symbolic processes that are often contradictory. Hence, the linear, closed border and its complementary negation are, in border studies, considered a ‘territorial trap’ (Agnew, 1994) failing to capture the complex and dynamic role and function of borders. Embedded in the social fabric of society, borders are everywhere (Balibar, 2002) as social phenomena or institutions with agency (Anderson, 1996) and as such capable of influencing and regulating societal and cultural processes at large (Newmann, 2003). Border studies has thereby proven that efficient dealing with borders demands a focus on ontologies characterized by practice and transformation. This has led to a proliferation of new border concepts among which the author’s *border multiple* (Andersen

& Sandberg, 2012) is a leading example together with the concepts *b/ordering* (van Houtum et al., 2005), *borderwork* (Rumford, 20008), *borderscapes* (Brambilla, 2015) and *borderness* (Green, 2012). Despite their potential ontological sensitivity to the transforming reality of borders, the concepts are yet to be assessed against the specific societal and spatial transformations entailed by the green transition, climate change, and the Anthropocene. Border studies is yet to systematically confront the question of borders in the face of the transformations precipitating from green transitions.

Taking these insights seriously could pioneer a new and innovative approach, emphasizing how green transitions generate very different and often conflicting interests across borders as well as provide much needed knowhow about how to deal with this reality. Here we are also inspired by O'Brien and Sygna's "Three Spheres of Transformation" model (O'Brien & Sygna, 2013) making apparent interconnections in the spatial, cultural and social dimensions, thus enabling systematic accounts of complex dynamics involved in the green transition. More concretely, the model shows how three spheres, which are called the 'practical', 'political', and 'personal' are interconnected, and transformations in one of them are likely to precipitate changes in the others. By working cross spheres and with interconnections it provides an understanding of how entanglements of different processes; come to regulate complex circulations of people, capital, and commodities across the globe (practical sphere); are integral parts of political and institutional frameworks (political sphere); are pivotal polysemic markers of identity, values, and worldviews (personal sphere). Identity, values and worldviews are thus recognised as co-constitutive of the politics and institutions, something which is largely overlooked within environmental research.

It is our argument, that a somewhat similar approach focusing on border practices and recognising border ontologies as co-constitutive and interconnected in space and time would provide a potent tool to investigate and underscore the importance of multiple, interconnected borders involved when implementing green transitions. Achieving this includes the additional recognition that spatial-temporal landscapes should be read horizontally, as non-scalar, consisting in situated, practical connections whose reality and value are assessed and negotiated wherever borders come to matter in practice (cf. Law & Mol, 2002). To exemplify, when the notion of state borders relies on a Westphalian logic of abstract lines dividing territories, it clashes with the border-practices of a range of actors, such as international businesses or cross-border workers who are dependent on crossing the line in one way or other, thus producing their own bordered realities. To understand the significance of such borders demands recognition of the situated and practical constitution of borders; borders are not abstract lines separating territories on a map, they come into being when institutions unfold in lived practices, by real people as part of their everyday lives. The practice-oriented approach thus also emphasizes multiple actors

as co-constitutive of borders (Mol, 2002; Law & Mol, 2002), something which is largely overlooked within political science and environmental research.

Speaking recently on climate change, the United Nations' secretary general, António Guterres, spoke of how the lacking and distrustful character of international cooperation troubled him the most as humanity faces the choice between "collective action or collective suicide." (UN Press, 2022) In this intervention we have argued that borders play a determining but altogether overlooked role in how we collectively respond to climate change. Furthermore, taking our point of departure in 30 years of border research, we have raised the concern that the current dichotomic bind between the open versus closed border paradigm has a detrimental effect upon the responses made. While the borderless paradigm glosses over the conflictual reality of borders and the closed border paradigm intensifies it, both fail to adequately address its complex and multifaceted character. Instead, what is needed is a viable alternative to the borderless and closed border paradigms that will foster interdisciplinary and inter-sectoral knowledge and practices capable of stimulating cross-border dynamics of the green transition as well as mitigating them when necessary. This requires that the extensive geographical, political, social, economic and cultural dimensions of borders are considered as they intersect with the likewise extensive impacts of the green transition.

Arguably, a practice-oriented approach to borders recognising the importance of their ontological constitution, rather than reading them as instruments of control and thus staying in the realm of mere epistemology, would provide us with a potent tool, enabling investigation of this tremendous significance borders have in green transitions. It would underscore the importance of how key actors in the green transition have different and often also conflicting understandings of borders, thereby recognising their ontological constitution and situated interconnections.

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