Towards a New Departure in Border Studies?
A Comment on the Increasing Talk of Complexity

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Preliminary remark

This text is not an empirical study, a major contribution to the field, or a classical full paper. It is, however, a scientific comment from the perspective of a cultural border studies scholar on a current trend in border research which will stimulate further debate. This text is no more and no less than that.

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Abstract – Since the mid-2010s at the latest, there has been discussion of the border as a complex phenomenon, aimed at a more comprehensive and differentiated understanding of b/orderings. However, there seems to be an imprecise use of the term 'complexity' in the academic debate, and sometimes, still, an everyday understanding of complexity prevails. To sharpen the debate around a border's complexity, in this comment, in a first step, I show what border scholars currently consider complex and question which analytical and conceptual developments in the wake of the bordering turn have encouraged the increasing talk of complex borders. In the second step, I suggest how border research can be inspired by complexity theories, in focusing on performative interrelations and their emergent dis/orders that become spatially and socially effective.

Border Studies, Bordering Turn, Complexity Shift, Border Complexities, Complexity Theory

Vers une réorientation en études sur les frontières ? Un commentaire sur le discours émergeant sur la complexité

Résumé – Depuis le milieu des années 2010 au plus tard, on discute la frontière comme un phénomène complexe, visant à une compréhension plus complète et différenciée des processus de frontiérisation. Cependant, il semble que la notion de « complexité » soit utilisée de manière imprécise dans le débat académique, et parfois, c'est encore une compréhension quotidienne de complexité qui prévaut. Afin d'affiner le débat sur une complexité de la frontière, nous montrons dans ce commentaire dans un premier temps ce que les chercheurs en études sur les frontières considèrent actuellement comme complexe et nous nous demandons quels développements analytiques et conceptuels, suite au « bordering turn », ont encouragé le discours émergeant sur les frontières complexes. Dans un deuxième temps, nous suggérons comment les études sur les frontières peuvent s'inspirer des théories de la complexité, en se concentrant sur les interrelations performatives au sein des processus de frontiérisation et leurs dés/ordres émergents qui deviennent spatialement et socialement efficaces.

Recherche sur les frontières, bordering turn, complexity shift, border complexities, théorie de la complexité

Hin zu einer Neuorientierung in den Border Studies? Ein Kommentar zur aufkommenden Rede von Komplexität

Zusammenfassung – Spätestens seit Mitte der 2010er-Jahre wird die Grenze verstärkt als komplexes Phänomen diskutiert, um zu einem umfassenderen und differenzierteren Verständnis von B/Ordering-Prozessen zu gelangen. Allerdings scheint der Begriff „Komplexität" in der Fachdiskussion unpräzise verwendet zu werden, und teilweise ist noch ein alltagssprachliches Verständnis von Komplexität auszumachen. Um die Debatte über eine Komplexität der Grenze zu schärfen, wird in diesem Kommentar in einem ersten Schritt aufgezeigt, was Grenzforschende aktuell als komplex qualifizieren, und gefragt, welche analytischen und konzeptuellen Entwicklungen im Zuge des Bordering Turn die aufkommende Rede von komplexen Grenzen befördert haben. Im zweiten Schritt wird diskutiert, wie sich die Grenzforschung von Komplexitätstheorien inspirieren lassen kann, indem sie sich auf die performativen Wechselbeziehungen in B/Ordering-Prozessen und deren emergente Un/Ordnungen, die wiederum räumlich und sozial wirksam werden, konzentriert.

Grenzforschung, Bordering Turn, Complexity Shift, Border Complexities, Komplexitätstheorie

1 Introduction

Since the mid-2010s at the latest, discussion of the border as a complex phenomenon has increasingly prevailed (Bossong et al. 2017; Gerst et al. 2018; Cooper and Tinning 2020; Brambilla 2021; Wille 2021; Scott 2021; Laine 2022; Bonin et al. 2024; Wille et al. 2024). A major impetus for the orientation on complexity, which is still-young, is the need to gain a deeper understanding of b/ordering processes. In a "world of borders" (Nail 2020, 203) characterized increasingly by populism, neo-nationalism, new racism, (climate) migration, and social inequalities, this need is very urgent. Looking at borders through the complexity lens should overcome a simplistic-dualistic idea of borders and draw a differentiating-comprehensive picture, considering the socially, spatially, and temporally dispersed elements of b/ordering processes in their dynamic interplay and the b/ordering effects related to it. With this intention, many initiatives in border studies have been implemented that deal programmatically with borders and complexity. These include, for example, the conference *Complex Borders: Dimensions − Dynamics − Technologies* (November 3−4, 2016) organized by the Viadrina Center B/ORDERS IN MOTION of the European University Viadrina Frankfurt (Oder). Following this conference, the special issue *Complex Borders. Perspectives of Current Border Studies* (Gerst et al. 2018), was published, which attempted to view "borderings not as a simplified and simplifying relationship, but as a product and producer of a complex mixture" (2018, 3). In addition, the *Border Complexities Project* (2019−2022) initiated by the UniGR-Center for Border Studies should be mentioned, in which scholars aimed to study b/orderings as emergent properties of complex textures (Wille et al. 2024). The increasing talk of a border's complexity is also related to more internal border views (Green 2012; Mezzadra and Neilson 2013; Rumford 2014; Gerst and Krämer 2017; Weier et al. 2018; Connor 2023), as a methodological trend that aims to understand "borders themselves are intrinsic complex orders" (Bossong et al. 2017, 77).

The initiatives and observations show that the idea of borders as a complex phenomenon has become established in border studies, and scholars are dealing with it. However, there is still little reflection on what exactly can be considered complex about borders, and what methodological and epistemological consequences a complexity lens implies. Rather, complexity often seems to be stated casually without seriously considering the main ideas of complexity thinking. The latter can be summed up as the understanding of "the way things are woven together" (Brambilla 2023, 1000) and of the underlying emergent orders that are effective for it. There are only a few works that deal in more depth with complexity thinking and its possible links to border studies (Bossong et al. 2017; Gerst et al. 2018; Brambilla 2023; Wille et al. 2024). This comment presents the current debate around 'complex borders' to address complexity theories and their possible inspirations for border research. To this end, in the first step, I identify examples of what border scholars currently qualify as complex, and I question which analytical and conceptual developments encouraged the increasing talk of a border's complexity. In the second step, I focus on the notion of complexity and make a suggestion about how border studies can be inspired by complexity theories in focusing on performative interrelations and their emergent dis/orders as key categories. Finally, I reflect on how border complexities can be approached empirically, and how complexity thinking can provide the stimulus for a new departure in border studies.

2 What Border Scholars Qualify as Complex

Border scholars rarely explain what exactly is understood as complex about borders. However, in the academic debate, borders are increasingly qualified as complex phenomena. To open the field, I identify examples of what border scholars currently qualify as complex. It can be stated that an argument for complexity is often made when the border is considered or reconstructed as a specific configuration. The border is then projected as a unique structure of political, cultural, historical, and other conditions, which stands for a singular expression. The consideration of such a "strong contextual determination of borders" (Cooper and Tinning 2020, 2) or the historically unique "complex mixture of different types of power" (Nail 2021, 477) should help to prevent simplification and ensure that borders are understood 'adequately' in their specific context. The term 'complexity' is also often used when the multitude of elements that are involved in b/ordering processes is to be taken into account. These include, for example, the multitude of actors in the border, or its different material and symbolic forms. In this context, Bürkner (2017, 90) and Laine (2017, 6) speak of a "multilevel complexity of borders" and thus refer to the social and spatial diffusion of b/ordering processes. Based on the multitude of various 'border workers' (Rumford 2012) or the "polyphony of the border" (Gerst et al. 2021, 17), reference is also made here to the perspectival character of the border (Brambilla 2015, 22). This addresses the variable constellations of actors, dimensions, and forms of the border, which are (made) relevant in b/ordering processes and can be analyzed from and through multiple perspectives. Complexity is also often mentioned with regard to the various dimensions according to which borders can be analytically differentiated. Here, the spatial dimension is often of considerable interest, which seems to have become more complex due to its diffusion, as already mentioned. The "multi-dimensional matrix of bordering" (Konrad and Brunet-Jailly 2019, 5) is also used to address different political-administrative scales (and sometimes their interplay), often discussed as a (cross-border) "multi-level governance" (Hooghe and Marks 2012; Ulrich and Scott 2021). Finally, it should be noted that some of the dimensions considered are themselves understood as complex structures: for example, Pötzsch (2021, 287) shows that for the technological dimension of b/ordering processes "people and machines act hand in hand" and merge into "complex socio-technical networks."

Furthermore, the complexity argumentation is often used regarding a relational character of borders. In this way, the relations between the socially, spatially, or temporally dispersed actors, material, and symbolic forms, or between the relevant dimensions and scales of b/ordering processes, are addressed. The focus on these relationships represents the concern to define borders as "complex relational spaces" (Brambilla 2021, 12) consisting of numerous elements. Finally, b/ordering processes are often qualified as complex where cultural order has fallen into disorder, or hegemonic norms are contested and alternative existences unfold: "Borders can be taken as either simplifying the world (dividing it into boxes) or making the world more complex (creating in-between spaces of encounter and hybridity)" (Schimanski and Nyman 2021, 249). This quote addresses relations beyond binary distinctions that produce phenomena of the in-between or the hybrid. They challenge hegemonic orders, prove to be resistant, and create complexity: "complexity by giving contradiction" (2021, 244). The contestational or subversive character of the border is seen here as a complexification that gives rise to alternative orders.

These aspects, which are qualified by border scholars as complex, should suffice to show that current complexity-oriented argumentation calls up very different characteristics of b/ordering processes. The polysemy of the term 'complexity' is due to the multidisciplinary character of border studies, the multiple modes of operationalization of b/ordering processes, and, ultimately, the widespread use of 'complexity' as a buzzword (Gerst 2024, 83). Related to the latter, there sometimes seems to prevail an everyday understanding of complexity within the academic debate, which prematurely equates the term with multitude and complicatedness.

3 Developments Encouraging the Complexity Orientation

The increasing talk of complexity is also due to some analytical and conceptual developments in border studies. They include, basically, the bordering turn (van Houtum and van Naerssen 2002) that has overcome the idea of the border as a given object in favor of the understanding that the border is both a product and

a producer of social practices. This turn inspired by different cultural turns (Bachmann-Medick 2007), implies a world as social fabrics and, consequently, continuous social (re)production of the border, its changeability, its historicity, its orderedness, and how it creates dis/order (Wille 2021). Bordering as a major methodology has undergone various appropriations and implementations in recent decades. These are reflected in further developments which encouraged the frequent use of the term 'complexity' in border studies and are outlined in the following.

Analysis of b/ordering processes are usually guided by specific research interests, leading often to analytical distinctions, and focusing on one or more specific dimensions of such processes. For example, the spatial dimension of b/ordering processes, which focuses on symbolic spatial productions, relational spatial constellations, or issues of political cooperation and spatial development, is often of interest (Wille 2015; Ulrich and Scott 2021; Pallagst and Blaser 2024). Furthermore, the temporal dimension can be mentioned, which is not limited to linear considerations in time, but also includes powerful entanglements of temporalities and their underlying chronopolitics (Hirschhausen et al. 2015; Donnan et al. 2017; Leutloff-Grandits 2021; Aubry and Schapendonk 2023). In addition, a material dimension of borders can be distinguished which increasingly also addresses the role of animals, plants, or viruses in a more-than-human perspective (Aubry and Amilhat Szary forthcoming, Ozguc and Burridge 2023). Related to this is the technological dimension of borders (Pötzsch 2021), which not only includes digital and automated control practices as material infrastructure, but also the physical dimension from a biopolitical perspective (Amoore 2006, 2024; Dijstelbloem 2021). It can be added the multivalent dimension of b/orderings, which addresses border injustices and the ordering logics that are effective for them (Amilhat Szary and Giraut 2015; Mau 2023; Wille et al. 2023). This is by no means a complete diversification into possible dimensions, which, however, often still reflects the classical disciplinary interests in dealing with borders. Whilst the diversification shows differentiated reflection on b/ordering processes, these only offer initial entry points for complexity thinking in border research. This is because the analytical disentanglement of the border according to dimensions inevitably remains at the level of the multitude of dimensions and provides no insights into their possible complex interplay from which b/orderings could emerge.

Another development is the tendency to think about and study b/ordering processes increasingly in their territorial, actor-related, and scalar spread or dispersion. This is due to the empirical observation that b/ordering processes diffuse in space and take place across different practices within and/or outside nationstates. Accordingly, the border is increasingly regarded as a phenomenon embedded in different social arenas, which occurs in different places (simultaneously) and in different constellations. Examples of this are control and regulatory practices that are not exclusively located at the territorial edges but are spatially mobile and ubiquitous (Balibar 2002; Amilhat Szary and Giraut 2015; Shachar 2020). Connected to this is the plurality of (non-)human agents involved in b/ordering processes, which is increasingly taken into account, as can easily be seen in the example of migration management (Rumford 2012; Ellebrecht 2020; Kasparek 2021). Also here, regarding the border's dispersion, advanced operationalization of b/ordering processes can be claimed, which, however, underlies the multitude of elements involved and masks out their possible complex interplay from which b/orderings could emerge.

Another development in the wake of the bordering turn can be seen in the texturalization of borders. This stands for a tendency that is particularly widespread in Cultural Border Studies (Fellner and Wille 2025) to think more comprehensively about b/ordering processes and to grasp the participating practices, dimensions, actors, and forms in their interwovenness in space and time. For this, the previously mentioned relational idea of the border has prevailed, which goes beyond the border as an ordered or ordering reality produced in a straightforward process limited to only certain places, scales, or social fields (Bürkner 2017). Rather, relational thinking translates the border into a trans-territorial, trans-temporal, and trans-scalar diffused texture that stands for powerful entanglements of practices, dimensions, actors, and forms, and that is held together by relationships between these elements. Concepts that follow a textural border ontology, and thus fit with basic ideas of complexity thinking, consider dimensions, actors, as well as symbolic and material forms of the border in its composite and interwoven character. Such concepts include approaches like the ethnographic border regime analysis (Transit Migration Forschungsgruppe 2007), which attempts to view the border "as a structure made of a multitude of actors, institutions and other human and nonhuman factors and practices, without simplifying the various interests and rationalities of these forces into a simple linear logic or a hidden agenda" (Hess and Schmidt-Sembdner 2021, 201). The borderscapes ap-

proach (Brambilla 2015; Brambilla et al. 2015) should also be mentioned here, which builds on Arjun Appadurai's "Scapes of Globalization" (1996) and defines borders as "space[s] of negotiating actors, experiences, and representations articulated at the intersection of competing and even conflicting tensions" (Brambilla 2015, 29). The idea of space used here, which is vague and often misunderstood by border scholars, stands for the border as a polymorphic textured scape, which can also be described as a relational, diffused, episodic, perspectival, and contested formation of its elements (Wille 2022). In addition, the bordertextures approach joins the impetus towards complexity thinking and grasps the border as a texture 'in becoming' constituted by activities, discourses, objects, bodies, and knowledge, which in their performative interplay cause dis/orders to arise or challenge it (Weier et al. 2018). In addition to the analysis of everyday cultural border entanglements, this approach opens „ways of conceiving borders as textu(r)al threads […] that allow Literary and Cultural Studies critics to disentangle the border/aesthetics nexus." (Fellner in press, 11). Finally, there is a suggestion to conceptualize borders from the perspective of social fabrics and interwovenness grounded in the assemblage debate (Deleuze and Guattari 1980; Ong and Collier 2005; DeLanda 2016). Accordingly, Christophe Sohn understands the border as an assemblage, i.e., as "a heterogeneous and open-ended grouping of elements that do not form a coherent whole" (2016, 188). This conception allows to think of the relational constellations of the elements of b/ordering processes as being continuously in the process of becoming, dynamically changeable and—at a certain time and/or in a certain context—as specific socio-spatial formations.

4 Complexity Theories and Border Complexities

The developments in the wake of the bordering turn have led to a more differentiated understanding of borders and paved the way for the idea of a border's complexity. Therefore, in the following, I focus on the complexity notion and show how border studies can be inspired by complexity theories to overcome the inconsistent understanding of complexity carved out above. To clarify what complexity is, scholars often first draw attention to the fact that complexity is not to be confused with complicatedness (Cilliers 1998, 3; Morin 2007, 6). They distinguish complicated structures (or systems) on the one hand, which consist of a multitude of elements and function in a regular manner, and complex structures on the other hand. Although the latter also consist of a large number of elements, their functioning changes over time and is unpredictable; they 'intrinsically' bring forth orders that are volatile and elusive (Cilliers 1998; Nowotny 2005). Such self-dynamic structures are brought into focus with complexity research for the purpose of studying their contingent characteristics, and effects. Complexity theories, which privilege relationships, contingency, and emergences, were initially established in the natural sciences and have subsequently found their way into the social sciences and cultural studies (Thrift 1999). In this context, we underline the distinctive interest of complexity research in patterns and dynamics of social orders, which were also discussed as social physics with the advent of big data (Urry 2005). No single theory of complexity has prevailed as a master reference; rather, complexity research stands for a multi-paradigmatic field that deals with material and/or social structures that are characterized by self-dynamic forms of agency of dis/ordering (Manson and O'Sullivan 2006).

The question of complexity leads to the fundamental insight that the latter does not stand for an ontological property of a structure. Rather, the unpredictable dis/orders or patterns that arise from the contingent interplay of the structure's elements are what stand for complexity as an *emergent* property: "The complexity emerges as a result of the patterns of interaction between the elements" (Cilliers 1998, 4–5). Regarding the border, this means overcoming the idea that borders are complex research objects per se, and asking by means of which unpredictable logics which dis/orders emerge from the performative interplay of the elements 'in play' in b/orderings, and how they become socially and spatially effective. The linkage of complexity thinking with the bordering concept leads here to what is proposed as *border complexities*: a concept that sees borders as interrelational entanglements and focuses on the contingent interplay of their elements and the dis/orders resulting from it. Thus, border complexities build on the bordering turn and its further developments, take an internal border view, and go further analytically than just asking which dimensions play a role in b/ordering processes or can be distinguished analytically, or to what extent the elements in-

volved constitute a territorial, scalar, actor-related or temporally diffused network. Thus, b/ordering processes, which are assumed to be complex, cannot—as is often practiced in border studies—be explained only by the multitude or the heterogeneity of elements considered and their complicated network-like interactions. In other words, border complexities stand for more than just the sum of their parts—they address the disruptive moment that materializes in performances of dis/order emerging from the interplay of the elements 'in play' in b/orderings. Border complexities thus follow the meaning of *complexus* in a twofold manner: on the one hand, the concept addresses "what is woven together" (Morin 2007, 6) and the self-dynamic interrelations between the interwoven elements; on the other hand, it addresses the emergent dis/orders that become spatially and socially effective.

Consequently, approaching border complexities empirically means considering the elements 'in play,' their performative interplay, and the resulting b/orderings. According to complexity theories, border complexities are not composed of a random assembly of elements but of elements that are 'meaningful' for their characteristics and effects. This meaning, however, is not inscribed in the elements, as Cilliers (1998, 11) explains, but arises in the contingent interplay with other elements: "[T]he elements of [border complexities, C.W.] have no representative meaning by themselves, but only in terms of patterns of relationships with many other elements." Therefore, border complexities with their dynamically entangled elements, cannot be determined in advance of the analysis; rather, they must be carved out in situ as a complex texture via exploratory procedures. These explorations are to be understood as tactile and acentric movements across time and space, searching for elements that gain meaning empirically in b/ordering processes. These explorative movements from or through the border (Cooper et al. 2014; Novak 2017) as an ongoing "linking and contextualizing" (Morin 2007, 18) should identify and trace interrelations of practices, discourses, knowledge, activities, bodies, or objects that instigate b/ordering performances, and thus are characterized by a b/orderness (Green 2012). The empirical investigation of border complexities is thus characterized by a fundamental openness as to which numerous elements and interconnections are 'in play' for b/orderings and are to be included in the analysis accordingly. Here, via explorative procedures—for example, diffractive ethnography (Gullion 2018; Aubry 2023), diffractive reading (Murris and Bozalek 2019; Fellner in press), border praxeologizing (Connor 2023, 2024; Gerst and Krämer 2027), linking (Schank and Fellner 2024), bordertexturing (Weier et al 2018; Fellner in press)—empirical research can grasp the "order of the border itself" (Gerst and Krämer 2021, 131), and make the complex interplay to speak. These approaches following the methodological principle of "border-analytical indifference" (Gerst and Krämer 2017, 3) help to avoid over-generalizing complexity and to uncover the emergent and powerful 'more' than just the sum of the border's elements.

5 Towards a New Departure in Border Studies

With this comment, an attempt has been made to discuss an ongoing trend in border studies to aim at a more comprehensive understanding of borders and relate it to complexity thinking for further debate. Border complexities and their characteristics of interrelationality, contingency, and performativity (emergence) have been used to highlight those analytical aspects of borders that are promising for a complexity lens but still receive little and inconsistent consideration in border studies. This can be explained, on the one hand, by the complexity orientation still being young, and the cross-disciplinary debate within border studies still being insufficient. On the other hand, the aspiration of complexity-oriented research not only to identify the elements 'in play' in b/ordering processes and to analyze them more or less in isolation from one another, but to grasp them from or through the border in their self-dynamic interplay as a complex texture with emergent b/ordering effects, seems to be particularly challenging for empirical work. The ethnographic approach suggested by Brambilla (2023, 1011) "to explore and investigate the social reality of the border from the perspective of border people and border sites, capturing the complex socio-cultural texture and arenas of life […] in […] the border" is a promising perspective here. Nevertheless, there is still some work to do for developing and testing suitable research designs and methods to capture the difficult-to-grasp in situ-moments of complex emergence of dis/orders, their underlying logics, and bordering effects.

Furthermore, it has not been an objective of this comment to perpetuate the widespread idea that borders are complex. Therefore, border complexities were suggested, showing that borders do not represent complex research objects per se and that analyses neglecting the emergent moment and focusing on single elements of borderings (and possibly on their complicated interactions) are also legitimate. For this reason, an epistemological complexity—which manifests itself in a complexity-sensitive way of approaching border realities—is strengthened here in a twofold sense as an outlook: on the one hand, as a methodological perspective that enables scholars to follow the border along its performative interrelations and helps to capture the unpredictable emergent dis/orders. On the other hand, epistemological complexity is intended to provide "fresh impulses for border thinking" (Cyrus 2024, 76), as was called for most recently by Laine (2021) or Walther et al. (2023). This perspective assumes the understanding of complexity outlined above, which helps to overcome an everyday understanding of complexity and to guide the ongoing complexity shift (Wille 2024) in border studies.

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