SFB 700
GOVERNANCE
IN AREAS OF LIMITED STATEHOOD

Material Determinism and Beyond

Spatial Categories in the Study of Violent Conflict

Sven Chojnacki and Bettina Engels

SFB-Governance Working Paper Series • No. 55 • June 2013

DFG Sonderforschungsbereich 700 Governance in Räumen begrenzter Staatlichkeit - Neue Formen des Regierens?
DFG Collaborative Research Center (SFB) 700 Governance in Areas of Limited Statehood - New Modes of Governance?

SFB-Governance Working Paper Series

Edited by the Collaborative Research Center (SFB) 700 "Governance In Areas of Limited Statehood - New Modes of Governance?"

Editorial assistance and production: Philipp Ebert/Sophie Pearl

All SFB-Governance Working Papers can be downloaded free of charge from www.sfb-governance.de/en/publikationen or ordered in print via e-mail to sfb700@zedat.fu-berlin.de.

Chojnacki, Sven/Engels, Bettina 2013: Material Determinism and Beyond: Spatial Categories in the Study of Violent Conflict, SFB-Governance Working Paper Series, No. 55, Collaborative Research Center (SFB) 700, Berlin, June 2013.
ISSN 1864-1024 (Internet)
ISSN 1863-6896 (Print)

This publication has been funded by the German Research Foundation (DFG).

DFG Collaborative Research Center (SFB) 700
Freie Universität Berlin
Alfried-Krupp-Haus Berlin
Binger Straße 40
14197 Berlin
Germany
Phone: +49-30-838 58502
Fax: +49-30-838 58540
E-mail: sfb700@zedat.fu-berlin.de
Web: www.sfb-governance.de/en

Deutsche
Forschungsgemeinschaft
DFG

Material Determinism and Beyond: Spatial Categories in the Study of Violent Conflict

Sven Chojnacki and Bettina Engels

Abstract:

This paper reviews recent debates in peace and conflict studies on the theoretical and empirical integration of spatial categories. We examine three notable strands of research. The first consists of studies that analyze the influence of topography, borders, and resource availability on the occurrence of international and intra-state war. The second strand comprises recent studies in civil war research focusing on territory and territorial control. The third strand is the debate on so-called environmental conflicts. We argue that most studies in all three fields are limited to the analysis of allegedly external material influences on violent conflict, failing to take into account the social and political meaning of physical materiality. We examine how recent research methodologically deals with interrelated scales (local, national, global). We argue that an analysis of the relationship between space and conflict should encompass both the materiality of space and its social meaning, and that these two aspects find themselves in a mutually constitutive relationship. Spatial theory therefore provides a useful approach.

Zusammenfassung:

Dieser Beitrag untersucht, wie Raumkategorien theoretisch und empirisch in der Friedens- und Konfliktforschung verwandt werden. Im Mittelpunkt stehen dabei drei Forschungsstränge: erstens Arbeiten zum Einfluss topographischer Faktoren, von Grenzen sowie Ressourcenvorkommen auf das Auftreten internationaler und innerstaatlicher Kriege; zweitens Studien aus dem Bereich der Bürgerkriegsforschung zu Territorium und territorialer Kontrolle; und drittens die so genannte Umweltkonfliktforschung. Festzustellen ist, dass die meisten Arbeiten sich auf die Analyse vermeintlich externer materieller Einflüsse auf Gewaltkonflikte beschränken und dabei die soziale und politische Bedeutung der physischen Materialität außer Acht lassen. Wir argumentieren, dass demgegenüber die Analyse des Verhältnisses von Raum und Konflikt zugleich die Materialität von Raum und ihre soziale Besetzung umfassen sollte, und dass beide sich wechselseitig konstitutiv aufeinander beziehen. Für eine solche Analyse stellt die sozialwissenschaftliche Raumtheorie hilfreiche Kategorien bereit.

Table of Content

1. Introduction

Linking space and conflict both theoretically and empirically has become highly fashionable in conflict studies. Frequent reference to the "spatial turn" is, however, often no more than a matter of "scientific correctness." Few substantial claims have been made as to how our knowledge of the relationship between space and conflict can be enhanced effectively. One problem is the fragmented landscape of theoretical narratives and empirical studies. Political and social geographers, political scientists, conflict researchers, and development scholars all demand that we widen our understanding of space in order to reflect the conditions, dynamics, and effects of conflict more precisely. As a result, scientific developments have led to what Dina Zinnes calls "additive cumulation" (Zinnes 1976). Despite noticeable progress within and across the various disciplines, we are far from reaching the ideal of "integrative cumulation". At the core of the issue lies the question: To what extent should space be conceptualized as an external, material condition influencing human action? Are certain societies more challenged by external shocks due to the material features of the geographical spaces they inhabit? And, for the same reason, are some societies more prone to violent conflict than others?

Peace and conflict studies have addressed these and other related questions in various recent debates. In this article, we critically review these debates and assess the theoretical and empirical conceptualization of spatial categories. In terms of "additive cumulation", we present three prominent strands of research. The first, going back to the 1970s, examines the influence of topography, borders, and resource availability on the occurrence of international and intrastate war. The second strand comprises recent studies of civil war that focus on the relationship between territory and conflict, in particular the relevance of territorial control for conflict dynamics. The third strand is the debate over the relationship between ecological change (climate change in particular) and violent conflict, so-called environmental conflicts. We argue that all three debates limit themselves to analyzing material factors conceptualized as being external to, and thus exerting influence upon, social conflictive action. Most existing research fails to include in its analysis the social and political meaning of the physical materiality of spatial features, for example topography, borders, resources, or territory. In what fallows, we examine the problem of analytical scales. We argue that recent trends in the study of civil war and environmental conflict to include quantitative, disaggregated geographical data have generated remarkable empirical insights but fail to link the physical-material and social-political features of local spaces. A theoretical approach is missing for the analysis of relationships across the local, national, transnational and global levels.

We conclude by arguing that space provides a promising theoretical concept to analyze how material conditions on the one hand and social, cultural, and political factors on the other are related with regard to collective conflict. Spatial theory conceives of conflict as social action and space as both socially produced and productive. From this perspective, space does not represent an additional variable to be added to the analysis of violent conflict. Instead, we suggest examining how conflict can be analyzed through the lens of spatial theory and how spatial and conflict theory can enter into a productive dialogue.

In this article, our starting point is nevertheless a conflict research perspective. While we are inspired by spatial theory debates, notably in political geography (e.g., Gergory/Urry 1994; Lefebvre 1994; Smith 1984), we neither present these debates in detail nor discuss in length the insights they offer to the study of collective conflict and violence. Nor do we refer to approaches from the sociology of space, which are, in most cases, only marginally concerned with the materiality of space, concrete locations, and territoriality.[1] With regard to peace and conflict research, we restrict our attention to work that conceptualizes spatial categories as material conditions influencing or determining social conflict because these have recently become the dominant strands in mainstream conflict studies. Studies on ethnic conflict and nationalism analyze the relevance of symbolic locations for conflict and collective identity (e.g., Kaiser 2002; Kaufmann 2001), but most scholars refrain from locating themselves within the debate on the nexus of conflict and space, and the respective mainstream debates do not refer to these studies either.

2. Topography, Borders, and Resources

The first strand of conflict research literature referring to spatial categories assumes that structural conditions such as physical qualities of land surface (topography), spatial location and distribution of resources, and relational geographic factors (proximity, borders) influence the probability of armed conflict by enabling or disabling particular patterns of conflict or logics of violence.

As early as the 1970s, research on international war began to conceptualize geographical conditions, for instance direct neighborhood and spatial distance, as explanatory factors for the occurrence and diffusion of armed conflict and war (cf. Diehl 1991; Starr 1991). Geographic features such as borders or contiguity have been considered "makers" for interactions between territorial entities and as opportunity structures encompassing the conditions under which actors formulate preferences and make decisions (Siverson/Starr 1991). Within the research on causes of war, the number of borders or the degree of contiguity and proximity have often been used as explanatory factors for the probability of the outbreak of war. For example, quantitative studies on the causes of inter-state wars emphasize the importance of territorial issues (boundary disputes) as the most war-prone among all contentious issues (Vasquez 2009). However, the understanding of both geography and the twin concepts of opportunity and willingness (Most/Starr 1980) are oriented toward the relatively static boundary conditions of methodological nationalism. The state as a basic unit of analysis is "construed as a territorial or geographical container," in which "ideas of organic nationhood and sovereignty are realized in a political geography of sharply delimited and inviolable spaces" (Agnew 1993).

Empirical findings in the study of civil war reveal that the impact of natural resource occurrence differs considerably with respect to resource types, concentration, and location. First, dia-

1 The theoretical foundations that the sociology of space builds upon – authors such as Pierre Bourdieu, Michel de Certeau, Michel Foucault and Anthony Giddens – are, without doubt, central references for the study of collective conflict. However, spatial perspectives in conflict research mostly emerge from other theoretical backgrounds (for an exception, see Korf et al. 2010).

monds and oil have highly significant effects, while agricultural goods are hardly significant at all (Fearon 2005; Lujala et al. 2005; Ross 2004). Second, centralized resources such as petroleum and easily accessible mines are considerably easier to monitor than geographically dispersed resources, such as opium plantations, alluvial diamonds, or tropical forests (le Billon 2001). Third, a critical aspect seems to be the proximity of key resources to the headquarters of a rebel group or the capital of the state. Empirical studies have outlined that relative military capabilities, the location of resources, and geographic distance interact and affect the dynamics of armed conflict (Buhaug 2010; Buhaug et al. 2009; cf. also Boulding 1962). Not surprisingly, infrastructure and urbanization also matter to some degree. By analyzing the local determinants of African civil wars, Halvard Buhaug and Jan Ketil Rød (2006) have demonstrated that armed conflict correlates to the spatial distribution of features such as relative road density. John O'Loughlin and colleagues (2011) have found evidence that the degree of urbanization (rural, large village, near urban, urban) and proximity to strategic locations (military installations, administrative institutions) affect the incidence and diffusion patterns of violence over time.

While quantitative conflict research has offered some interesting correlations between spatial conditions and conflict, most studies are based on a rather narrow understanding of geography, focusing on spatially fixed factors such as topography, infrastructure, borders or proximity. Even if they refer to the term "space" and intend to overcome static and absolute concepts thereof (the idea that spatial containers encompass the social world), studies of this type persistently operate in a territorial container. It is not "space" in the sense of spatial theory that receives attention; instead, material factors such as resource availability or physical demarcation (bordering) are used to explain and predict armed conflict.

Most of these studies have in common that they do not principally question the relationship between conflictive action and external "existent" resources as a material condition thereof. But material features only become resources through social relations—and it is these social relations that explain why a certain resource enables or disables certain conflictive action. Certainly, physical spaces have locatable and measurable properties; but the meaning and impact of such "objective" conditions on individuals and social groups are contingent upon time and space. Therefore, beyond "external" material conditions, the relationship between space and conflict revolves around the intangible, dynamic qualities attributed to these conditions by social groups or individuals (e.g., notions of ownership, ideas of cultural identity that are connected to a certain physical space, and so on). This dimension of social and political meaning of the physical materiality of space has yet to be reflected in conflict research focusing on topography, borders, and resource occurrence.

3. Territory

The second strand comprises recent studies of civil war that focus on territory. Several approaches try to link conflict to the function of territory for the maintenance of order, thereby emphasizing the significance of territorial control for the political-strategic relations between violent actors and the civilian population. The most prominent approach is the "control-

collaboration model" developed by Stathis Kalyvas (Kalyvas 2006, 2012). Using a micro-level approach, Kalyvas concludes that the level of territorial control exercised by armed actors, as well as their desire to minimize information asymmetries, predicts the spatial variation of violence against civilians in civil wars. Violence becomes a function of different zones of territorial control and depends on the degree of control (including areas fully controlled by one actor and areas contested by armed groups). Without a doubt, the "control-collaboration model" offers a pioneering perspective on the interconnected logics of information, territorial control, and types of violent actions. It remains, however, within the logic of territory conceived as a physical materiality external to human perception and political and social power relations.

From a spatial theory perspective, the understanding of territoriality must incorporate at least two additional categories. The first refers to the control of land as both a relation of property and a material condition for the distribution and allocation of economic value (Elden 2010: 804). Control can be defined as social and political practices that ascertain claims to, access to, and exclusion from land. Temporally and spatially limited, such practices include territorialization, legalization, formalization, or privatization, but also violence (Peluso/Lund 2011: 668). Control over territory is an indispensable precondition and a means for the specific and independent extraction of natural resources. Access to scarce and/or valuable resources is directly related to political power and, therefore, to the capacity and incentive to wage war. The value of territorial control, however, varies depending on the economic and strategic importance of specific areas. Especially for armed groups, both territories with valuable resources such as diamonds, gold, or oil and those with inherent value for strategic action such as capitals, harbors, and transport routes are more important than a piece of land without major resources in the periphery. Furthermore, the meaning and function of territory is not necessarily fixed or state-based. Armed groups often create new boundaries and spaces of control. Conceptually, these areas are subject to complex processes of re-territorialization rather than de-territorialization. The strategic and economic value of territory is of central importance (and not dependent on the existence of a central state authority); thus, territory remains pivotal for understanding social relationships in different spatial settings (Forsberg 1996).

A further type of territorial control goes beyond economic-material and political-strategic measures. Territory is more than just a particular place or piece of land "controlled by a certain kind of power" (Foucault 2007: 176). Territory can be seen as a socially constructed category, as each individual or group has its own understanding of territories and landscapes. Territorial control in this sense not only determines structures of opportunity for political action or creates risks for the escalation of violent conflicts, but also has an inherent significance and an identity-building function for the development of territorial governance, including statehood (Knight 1994; Murphy 1996).

At the same time, land is a source of domination over people, and control over a certain territory can be exploited economically (Vandergeest/Peluso 1995: 385). State authority and domination are secured, too, through territorial control—whereby local actors might accept, ignore, or fight against these state practices (Berry 2009: 24). Peter Vandergeest and Nancy Peluso (1995)

analyze internal territorialization, understood as state policies of spatial-administrative organization within a state's territory as a means of establishing control over natural resources and human beings as resource users. Territoriality, they argue, is a central element in understanding state–society relations. Robert David Sack has defined territoriality as "the attempt by an individual or group to affect, influence, or control people, phenomena, and relationships, by delimiting and asserting control over a geographic area" (Sack 1986: 19). Territoriality thus refers to the inclusion and exclusion of people within certain geographic borders. Political rulers territorialize state power in order to achieve different goals. Enforcement of taxes and access to valuable natural resources are crucial, but control over men of military age as potential soldiers (Vandergeest/Peluso 1995: 390)—linking internal territorialization to military disputes within and between states—is also decisive. Most states further use territorialization to surveil and control citizens. Political territorialization measures aiming to exert control over people and resources are, for example, administrative reordering or enforced settlements of mobile social groups in rural areas.

The Ethiopian government, for instance, has used its recent "Villagization Plan" to try to settle 15,000 "scattered" rural households in the Gambella region (in the West of Ethiopia, bordering South Sudan). While the program officially aims at providing socio-economic infrastructure to rural people in a remote area, it also facilitates state authorities' control over mobile pastoral groups and drives people off of land plots that the international agribusiness hopes to use for large-scale investment (HRW 2012, The Guardian 2011). In the oil-producing Niger delta region of Nigeria, inter- and intra-ethnic violent conflicts rage over access to land and claims to the oil-bearing territory, also extending to financial compensation paid by the oil companies. In these struggles, ethnic border demarcations of electoral and administrative units, drawn up by the federal states and supported by the central government, play a crucial role. These demarcations determine whether or not communities have access to compensations paid by the petro-business, which is determined to use these territories for oil infrastructure such as refineries and pipelines (Watts 2013).

Early globalization theorists (e.g. Taylor 1996) argued that territorial boundaries may lose their functionality for political authority. These might have been premature considerations, as argued by David Newman (2010). Territory has not lost its relevance, neither for the performance of authority and domination nor for the construction of collective identities. On the contrary: territorial references are central for identity-related inclusion and exclusion, for the construction of "Self" and "Other." The construction of collective identities—referring to the nation or other "imagined communities" such as ethnic or autochthonous groups—plays an essential role in violent conflicts (e.g. Horowitz 1985). Most struggles over land between local social groups are also conflicts over the legitimacy of various land claims; these, in turn, are closely linked to the social negotiation of citizenship and belonging, inclusion and exclusion. Numerous examples of such conflicts, wherein the label of 'Other' applies to strangers, foreigners, migrants, and autochthons, have recently been observed all over the African continent (e.g., in Côte d'Ivoire, Zimbabwe, and Ghana; Lund 2011; Peters 2004). Territoriality represents a main link in conceptualizing the relationship between collective conflict and identity constructions;

yet, conventional understandings of territorial control in the study of civil war fail to recognize it as such. In contrast, a spatial theory perspective encompasses both the materiality of territory and its political-economic and social-cultural relevance, as well as the dialectic dynamic between them.

4. Environmental conflict

The third strand of peace and conflict research that makes reference to spatial categories is the study of so-called environmental conflicts. Since the early 1990s, a debate has emerged particularly in political science on whether and how environmental change influences the occurrence of violent conflict on different levels (local, national, and international). The Fourth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC) drew broad attention from politics, media, and academia; in the following years, scholars focused on determining to what extent the effects of climate change—such as rising temperature, increasing rainfall variability, and extreme weather—affect violent conflict. By now, most scholars agree that ecological change becomes relevant for collective conflict only through social and political mediation (e.g. Bächler et al. 2002; Gleditsch 1997; Homer-Dixon 1991). Nevertheless, recent studies uphold a correlation between rainfall patterns and violent conflict (Raleigh/Kniveton 2012; Theisen 2012). Remarkable progress has been made especially with regard to empirical evidence, as well as to the identification of social and political factors that mediate the relationship between environmental change and violent conflict (e.g. Benjaminsen/Boubacar 2009; Benjaminsen et al. 2012). However, some weaknesses remain, in particular the enduring focus on the nation-state as the most important level of analysis.

With regard to environmental conflict research, most studies seem to be missing a theoretical concept of space. Changes in the physical-material environment, as well as in violent conflict, come across in different ways throughout time and space. Thus, the causal relations between environmental change and conflict can only be constructed in reference to the physical locations where both the conflicts and the effects of environmental change take place. Violence is a socially differentiated phenomenon; at a specific location at one moment in time, not all people present are affected by collective violence in the same ways. Likewise, the social effects of ecological change vary horizontally and vertically, as numerous studies have shown (e.g., Adger 1999; Blaikie et al. 1994; Wisner et al. 2004). Some people are more vulnerable to the effects of environmental change than others, with social categories such as race, class, ethnicity, gender, and generation being central determinants (Adger 2006). Locations and territories inhabited by people influence their vulnerability, too—but this only constitutes one variable among others, and it may be interrelated with other conditions.

An analysis of the spatial dimension of environmental conflicts that only refers to physical-material features—for instance, by presenting certain areas such as river deltas, costal zones, savannah regions, and so on as particularly prone to the effects of ecological change and conflict risks—fails to cope with the complexity of ecological and social systems. However, an a priori assumption that physical materiality has no relevance to violent conflict falls equally

short. Most existing models that try to integrate both environmental and socio-political factors persistently assume a linear causal relationship between ecological change and conflict, conceptualizing social and political institutions as intervening variables (Homer-Dixon 1999). By contrast, an analysis based on spatial theory assumes material and social processes to be mutually constitutive: on the one hand, we cannot define any "natural" environment without taking into account its social and political meaning; on the other hand, nature indeed possesses an inherent materiality that exists beyond social and cultural construction. Thus, spatial theory and spatial analytical categories enable us to analyze the relationship between environmental change and conflict without reproducing over-simplified, unidirectional causal lines—thereby moving us beyond material determinism.

5. Enduring Containers: Analytical Levels and Scales

Recent civil war research and the study of environmental conflict have attempted to overcome the container concept of the nation-state (Buhaug/Gates 2002; Buhaug/Rød 2006). However, in one way or another, most studies perpetuate the territorial container of the state. Even if complex, disaggregated geographical data are used, the state, in the end, is simply replaced by arbitrary "grid cells" as the central units of analysis. Such a shift in the level of analysis has yet to fully overcome methodological nationalism without merely replacing it with "methodological territorialism" by assuming smaller but still territorially bound entities. While grid cell construction does not reproduce the arbitrary demarcations of nation-states, it creates new containers and equally arbitrary boundaries instead, not taking into account the social, political, and cultural meaning of territories and places. Furthermore, by deliberately disregarding nation-state borders, grid cell analysis is unable to tackle the meaning that these historically and politically charged borders can have for local resource conflicts.

No doubt, recent studies based on disaggregated geographical data add some insights into the causes of civil wars: they show, for instance, that topographical variables, such as forests and mountains, affect the manner in which internal violent conflicts are carried out and play an important role in determining the prospect of winning a battle or the war (cf. Gates 2002; Buhaug/Gates 2002; Buhaug and Rød 2006). However, the analytical problems related to nation-state centrism cannot be resolved by simply "downscaling" the level of analysis (cf. Agnew 1994). The potential of integrating structural and geometrical vector data[2] methodologically will only be fully tapped into if the empirical analysis is systematically linked to spatial and conflict theory debates.

The analytical bias in favor of the nation-state level is reflected in qualitative and quantitative studies alike (Deligiannis 2012). In recent years, an increasing number of case studies on civil wars and environmental conflicts have referred to the sub-state level. But these studies hardly

2 Whereas structural data give information about economic, political, demographic, or military development, vector data represent geographical information based on points, lines, curves, and shapes or polygons (e.g., cities, transport routes, resource distribution, surface areas, settlement or population density, and so on).

investigate the inter-scale relationships between the local, national, transnational, and global levels. Statistical analysis mostly based on the aggregate level of the nation-state is rarely linked to local case studies. A multi-scalar analytical perspective encompassing the interrelationship between the socio-political and the physical-material dimensions of space is still missing in conflict research (for an exception, see Benjaminsen/Boubacar 2009). Most quantitative empirical studies do not differentiate between territorial or social aspects of variables such as population density and growth, resource availability, and the occurrence of violent conflict (e.g., Hauge/Ellingsen 1998; Hendrix/Glaser 2007). Likewise, quantitative analyses of inter-communal conflicts do not make spatial references beyond the national level (e.g., Reuveny 2007: 662). These studies seldom take into account social and political institutions on the sub-state level, even though there is no doubt that these institutions are often central to the resilience of local communities vis-à-vis environmental hazards, such as droughts or flooding, and social shocks such as violent conflict. In the end, the choice of variables in large-N studies depends more on data availability than on theoretical considerations, as Clionadh Raleigh and Henrik Urdal admit: "Despite its theoretical importance, we do not attempt to empirically capture resource distribution, as such data are currently not available on the local level" (Raleigh/Urdal 2007: 678).[3]

6. Space and social action

Although spatial categories are, at least rhetorically, frequently referred to in peace and conflict study debates, most existing studies do not analyze space itself in a theoretically informed sense. Instead they tend to focus on specific material conditions, subsumed under spatial terms. In the following paragraphs, we conceptualize a starting point for conflict analysis based on spatial theory in order to move beyond a materially deterministic approach.

The "spatial turn" in the social sciences was preceded by a "social turn" in geography. Strikingly, conflict research seems to fall straight into the "spatial trap" that geography has struggled to liberate itself from. Most spatial theorists in social and political geography nowadays agree that physical-material constellations do not determine, and consequently do not explain, social action in a causal sense. The social and the spatial are mutually constituted and inseparable; space cannot be reduced to material features. A core question in spatial theory remains to what degree we can grant theoretical autonomy to the materiality of space. Spatial differentiation is, as Doreen Massey has argued, a result of social processes—but at the same time, it also affects these processes. Thus, the spatial as such is not only an outcome but also part of the explanation for social action (Massey 1984). Nevertheless, physical-material markers of space do not constitute social enforcements but rather account for material representations of symbolic demarcations. Consequently, physical materiality as such does not offer causal explanations for social action.

3 Without a doubt, availability of relevant and reliable data is a challenge, particularly on the sub-state level. This holds true for quantitative and qualitative studies alike. Nevertheless, from a methodological perspective, we consider it problematic to choose variables primarily based on data availability.

From this perspective, conflict research clearly falls behind the current debates in spatial theory. Most existing conflict research studies focus on material features such as geographical distances, the location of natural resources, or the physical qualities of soil, assuming that these factors cause or influence social action and, therefore, collective conflict. We argue that a more comprehensive understanding should not only take into account both the material and the symbolic, identity-related dimensions of space, but also analyze how these two dimensions relate to each other. In order to achieve this, we suggest analyzing spatial constellations that are produced and reproduced by social conflictive action and, at the same time, enable or limit further action. From this perspective, space does not determine conflicts, but conflicts always have a spatial dimension: they produce, structure, and restructure space. Building upon this assumption, we can ask what kinds of social action enable or hinder certain spatial conditions. Hence, the core question is not: Which spatial conditions cause, trigger, or influence conflict? But rather: How does conflictive action produce space, and what can we conclude from this concerning the spatial dimension of social conflicts?

Power and identity are central concepts here. Space, as Henri Lefebvre has conceptualized it, is a means of establishing and maintaining control, power, and domination (Lefebvre 1994: 26). Access to material things—land, for instance—as a means of social action is closely linked to controlling the scope of action of other individuals and social groups. This is what power means: control over persons and material goods. Thus, the spatial conditions of social action, themselves socially produced and reproduced, are an expression of power relations (Werlen 2005). With regard to territory and territorial control, we have sketched out how these conceptual reflections can help us understand the dynamics of collective conflict.

The same holds true for collective identity. As we have shown, research that conceptualizes spatial categories in a simple, materially deterministic way widely ignores the relevance of identity construction for violent conflict. Meanwhile, studies in the field of identity and conflict (ethnic conflict, inter-communal conflict, nationalism, and so on) hardly take into account the physical-material dimension of the conflicts at hand. Spatial theory provides an approach that bridges this gap. David Newman (2010), for instance, has convincingly shown that territory is crucial for the construction of identity, of "Self" and "Other," of inclusion and exclusion. Often (but not always), political identities refer to territorially defined spaces; these, however, are not necessarily linked to nations and states but rather, perhaps more frequently, to other "imagined communities" such as ethnic, indigenous, and autochthonous groups (Lund 2011).

With regard to spatial analysis in the study of contentious politics, Deborah Martin and Byron Miller (2003: 144) have summarized:

> Should space be thought of as a variable—distance, for instance—to be added on to an otherwise aspatial analysis? Should space be thought of in terms of place-specific forms of identity, e.g., neighborhood identity or nationalism, separate from "non-spatial" forms of identity such as gender, race, and class? … There

is precedent for the adoption of each of these conceptualizations, and in certain instances each may yield important insights.

This holds equally true for spatial analysis in the study of conflict and peace. If we assume that space and social action are inseparably interwoven, it is hardly possible to add space and stir it in to an "otherwise aspatial analysis" of violent conflict. However, this is what most existing studies do: they add certain physical-material features to a principally unaltered analysis of conflict based on assumptions of linear causal relations. From a spatial theory perspective, by contrast, conflict as social action is constitutively related to space, whereas space as a whole encompasses physical materiality as well as its social meaning.

7. Conclusion

Where does this scientific journey take us? We have stated that "integrative cumulation" is still missing and that most studies lack theoretical reflection on the relationship between space and conflict. Instead, they stick to deterministic assumptions about the effects of material conditions on violent conflict, failing to conceptualize how physical materiality is mediated socially and politically. Rather than simply inverting this approach to focus solely on social, cultural, and political dynamics such as power and identity, we suggest building an analysis on the mutually constitutive relationship between the socio-political and material dimensions of violent conflict, based on spatial theory.

From the perspective of conflict research, no societies or regional settings are more conflict-prone than others, per se. Yet, social, cultural, economic, and political factors—as well as geographical conditions—may create an environment that increases the opportunity and willingness of certain actors to solve distributional conflicts using violent means. Over time, as a social practice, (armed) conflict itself contributes to the (shifting) meanings of space and symbolic, identity-related factors at the local and/or national level. Transitory conflict dynamics and transnational activities common to the rapidly changing environment of violent conflict further complicate the matter. Therefore, an analysis of the space–conflict nexus has to identify the interactive effects of physical materiality, territorial control, and conflict dynamics. Social conflict thus possesses constructive power for both the physical and the socio-political dimension of space. In such an analysis, space should not be reduced to "container boxes," but should instead account for the interrelated and mutually reinforcing conflict-related practices of resource exploitation, territorial separation, and political decision-making.

References

Adger, W. Neil 1999: Social Vulnerability to Climate Change and Extremes in Coastal Vietnam, in: World Development 27: 2, 249-269.

Adger, W. Neil 2006: Vulnerability, in: Global Environmental Change 16: 3, 268-281.

Agnew, John 1993: Representing Space. Space, scale and culture in social sciences, in: Duncan, James/Ley, David (eds.), place/culture/representation, London/New York, 251-271.

Agnew, John 1994: The Territorial Trap: The Geographical Assumptions of International Relations Theory, in: Review of International Political Economy 1: 1, 53-80.

Bächler, Günther/Spillmann, Kurt R./Suliman, Mohamed (eds.) 2002: Transformation of Resource Conflicts: Approach and Instruments, Bern.

Benjaminsen, Tor/Boubacar, Ba 2009: Farmer-herder conflicts, pastoral marginalisation and corruption: a case study from the inland Niger delta of Mali, in: The Geographical Journal 175: 1, 71-81.

Benjaminsen, Tor Arve/Alinon, Koffi/Buhaug, Halvard/Buseth, Jill Tove 2012: Does climate change drive land-use conflicts in the Sahel?, in: Journal of Peace Research 49: 1, 97-111.

Berry, Sara 2009: Property, Authority and Citizenship: Land Claims, Politics and the Dynamics of Social Division in West Africa, in: Development and Change 40: 1, 23-45.

Blaikie, Piers, Terry Cannon, Ian Davis, and Ben Wisner 1994: At risk: natural hazards, people's vulnerability, and disasters, London/New York.

Boulding, Kenneth 1962: Conflict and Defence, A General Theory, New York.

Buhaug, Halvard 2010: Dude, Where's My Conflict? LSG, Relative Strength, and the Location of Civil War, in: Conflict Management and Peace Science 27: 2, 107-128.

Buhaug, Halvard/Gates, Scott 2002: The Geography of Civil War, in: Journal of Peace Research 39: 4, 417-433.

Buhaug, Halvard/Rød, Jan Ketil 2006: Local determinants of African civil wars, 1970-2001, in: Political Geography 25: 3, 315-335.

Buhaug, Halvard/Gates, Scott/Lujala, Päivi 2009: Geography, Rebel Capability, and the Duration of Civil Conflict, in: Journal of Conflict Resolution 53: 3, 544-569.

Deligiannis, Tom 2012: The Evolution of Environment-Conflict Research: Toward a Livelihood Framework, in: Global Environmental Change 12: 1, 78-100.

Diehl, Paul F. 1991: Geography and War. A Review and Assessment of the Empirical Literature, in: International Interactions 17: 1, 11-27.

Elden, Stuart 2010: Land, terrain, territory, in: Progress in Human Geography 34: 6, 799-817.

Fearon, James D. 2005: Primary Commodity Exports and Civil War, in: Journal of Conflict Resolution 49: 4, 483-507.

Forsberg, Tuomas 1996: Explaining Territorial Disputes, From Power Politics to Normative Reasons, in: Journal of Peace Research 33: 4, 433-449.

Foucault, Michel 2007: Questions on geography, in: Elden, Stuart/Crampton, Jeremy W. (eds.), Space, knowledge and power: Foucault and geography, Aldershot, 173-184.

Gates, Scott 2002: Recruitment and Allegiance. The Microfoundation of Rebellion, in: Journal of Conflict Resolution 46: 1, 111-130.

Gergory, Derek/Urry, John (eds.) 1994: Social Relations and Spatial Structure, Basingstoke/London.

Gleditsch, Nils Petter (ed.) 1997: Conflict and Environment, Dordrecht.

Hauge, Wenche/Ellingson, Tanja 1998: Beyond environmental scarcity. Causal pathways to conflict, in: Journal of Peace Research 35: 3, 299-317.

Hendrix, Cullen S./Glaser, Sarah M. 2007: Trends and triggers: Climate, climate change and civil conflict in Sub-Saharan Africa, in: Political Geography 26: 6, 695-715.

Homer-Dixon, Thomas 1991: On the threshold: environmental changes as causes of acute conflict, in: International Security 16: 2, 76-116.

Homer-Dixon, Thomas 1999: Environment, scarcity, and violence, Princeton.

Horowitz, Donald L. 1985: Ethnic groups in conflict, Berkeley, CA.

HRW 2012: "Waiting Here for Death": Forced Displacement and "Villagization" in Ethiopia's Gambella Region. Human Rights Watch, New York.

Kaiser, Robert J. 2002: Homeland Making and the Territorialization of National Identity, in: Conversi, Daniele (ed.), Ethnonationalism in the Contemporary World: Walker Connor and the Study of Nationalism, London, 229-247.

Kalyvas, Stathis N. 2006: The Logic of Violence in Civil War, New York.

Kalyvas, Stathis N. 2012: Micro-Level Studies of Violence in Civil War: Refining and Extending the Control-Collaboration Model, in: Terrorism and Political Violence 24: 4, 658-668.

Kaufmann, Stuart J. 2001: Modern Hatreds: the Symbolic Politics of Ethnic War, Ithaca, NY.

Knight, David B. 1994: People Together, Yet Apart. Rethinking Territory, Sovereignty, and Identities, in: Demko, George J./Wood, William B. (eds.), Reordering the World. Geopolitical Perspectives on the Twenty-first Century, Boulder, CO, 71-86.

Korf, Benedikt/Engeler, Michelle/Hagmann, Tobias 2010: The Geography of Warscape, in: Third World Quarterly 31: 3, 385-399.

Le Billon, Philippe 2001: The political ecology of war: natural resources and armed conflicts, in: Political Geography 20: 5, 561-584.

Lefebvre, Henri 1994: The Production of Space, Oxford.

Lujala, Päivi /Gleditsch, Nils Petter/Gilmore, Elisabeth 2005: A Diamond Curse? Civil War and a lootable Resource, in: Journal of Conflict Resolution 49: 4, 538-562.

Lund, Christian 2011: Land rights and citizenship in Africa. Nordiska Afrikainstitutet Discussion Paper No. 65, Uppsala.

Martin, Deborah G./Miller, Byron 2003: Space and contentious politics, in: Mobilization. An International Quarterly 8: 2, 143-156.

Massey, Doreen B. 1984: Introduction: Geography Matters, in: Massey, Doreen B./Allen, John (eds.), Geography Matters, New York, 1-11.

Most, Benjamin A./Starr, Harvey 1980: Diffusion, Reinforcement, Geopolitics, and the Spread of War, in: The American Political Science Review 74: 4, 932-946.

Murphy, Alexander B. 1996: The Sovereign State System as a Political-Territorial Ideal. Historical and Contemporary Considerations, in: Biersteker, Thomas J./Weber, Cynthia (eds.), State Sovereignty as Social Construct, Cambridge, MA, 80-120.

Newman, David 2010: Territory, compartments and borders: avoiding the trap of the territorial trap, in: Geopolitics 15: 4, 773-778.

O'Loughlin, John/Holland, Edward C./Witmer, Frank D. W. 2011: The Changing Geography in Russia's North Caucasus, 1999-2011: Regional Trends and Local Dynamics in Dagestan, In-

gushetia, and Kabardino-Balkaria, in: Eurasian Geography and Economics 52: 5, 1-30.

Peluso, Nancy Lee/Lund, Christian 2011: New frontiers of land control: Introduction, in: Journal of Peasant Studies 38: 4, 667-681.

Peters, Pauline E. 2004: Inequality and Social Conflict over Land in Africa, in: Journal of Agrarian Change, 4: 3, 269-314.

Raleigh, Clionadh/Kniveton, Dominic 2012: Come rain or shine: An analysis of conflict and climate variability in East Africa, in: Journal of Peace Research 49: 1, 51-64.

Raleigh, Clionadh/Urdal, Henrik 2007: Climate change, environmental degradation and armed conflict, in: Political Geography 26: 6, 674-694.

Reuveny, Rafael 2007: Climate change-induced migration and violent conflict, in: Political Geography 26: 6, 656-673.

Ross, Michael L. 2004: What Do We Know About Natural Resources and Civil War, in: Journal of Peace Research 41: 3, 337-356.

Sack, Robert David 1986: Human Territoriality. Its theory and history, Cambridge.

Siverson, Randolph M./Starr, Harvey 1991: The Diffusion of War. A Study of Opportunity and Willingness, Ann Arbor, MI.

Smith, Neil 1984: Uneven development: nature, capital and the production of space, Oxford.

Starr, Harvey 1991: Joining Political and Geographic Perspectives, Geopolitics and International Relations, in: International Interactions 17: 1, 1-9.

Taylor, Peter J. 1996: Territorial Absolutism and its Evasions, in: Geography Research Forum 16: 1-12.

The Guardian, Ethiopia's land rush: Feeding the world, 21 March 2011, www.guardian.co.uk/global-development/video/2011/mar/21/ethiopia-land-rush (access date: 22 February 2013).

Theisen, Ole Magnus 2012: Climate clashes? Weather variability, land pressure, and organized violence in Kenya, 1989–2004, in: Journal of Peace Research 49: 1, 81-96.

Vandergeest, Peter/Peluso, Nancy Lee 1995: Territorialization and state power in Thailand, in: Theory and Society 24, 385-426.

Vasquez, John A. 2009: The War Puzzle Revisited, Cambridge.

Watts, Michael 2013: Imperiales Öl und vergessene Verbrechen: Grenzgebiete der Enteignung im Niger-Delta, in: Prokla 43: 170, i. E.

Werlen, Benno 2005: Raus aus dem Container! Ein sozialgeographischer Blick auf die aktuelle (Sozial-)Raumdiskussion, in: Projekt „Netzwerke im Stadtteil" (ed.), Grenzen des Sozialraums. Kritik eines Konzepts - Perspektiven für die Soziale Arbeit, Wiesbaden, 15-35.

Wisner, Ben/Blaikie, Piers M./Cannon, Terry/Davis, Ian 2004: At risk: natural hazards, people's vulnerability, and disasters, Rev. edition, London.

Zinnes, Dina 1976: The Problem of Cumulation, in: Rosenau, James N. (ed.), Search of Global Patterns, New York, 161-166.

Previously published Working Papers from the SFB-*Governance* Working Paper Series

Bothe, Lukas/Grundmann, Kai 2013: Legitimitätsressourcen im Übergang von antiker zu mittelalterlicher Staatlichkeit. Zwei Perspektiven auf postimperiale Governance, SFB-Governance Working Paper Series Nr. 44, DFG Sonderforschungsbereich 700, Berlin, Juni 2013

Börzel, Tanja A./van Hüllen, Vera/Lohaus, Mathis 2013: Governance Transfer by Regional Organizations. Following a Global Script?, SFB-Governance Working Paper Series, No. 42, Collaborative Research Center (SFB) 700, Berlin, January 2013.

Goikhman, Izabella/Herrmann, Barbara 2012: The Governance Discourse in China. SFB-Governance Working Paper Series, No. 41, Collaborative Research Center (SFB) 700, Berlin, November 2012.

Willms, Jan 2012: Justice through Armed Groups' Governance – An Oxymoron? SFB-Governance Working Paper Series, No. 40, Collaborative Research Center (SFB) 700, Berlin, October 2012.

Ickler, Christian/Wiesel, John 2012: New Method, Different War? Evaluating Supervised Machine Learning by Coding Armed Conflict, SFB-Governance Working Paper Series, No. 39, Collaborative Research Center (SFB) 700, Berlin, September 2012.

Livingston, Steven/Walter-Drop, Gregor 2012: Information and Communication Technologies in Areas of Limited Statehood, SFB-Governance Working Paper Series, No. 38, Collaborative Research Center (SFB) 700, Berlin, September 2012.

Schüren, Verena 2012: Two TRIPs to Innovation. Pharmaceutical Innovation Systems in India and Brazil, SFB-Governance Working Paper Series, No. 37, Collaborative Research Center (SFB) 700, Berlin, June 2012.

Sonderforschungsbereich 700: Grundbegriffe der Governanceforschung, SFB-Governance Working Paper Series, No. 36, 2. revised edition, Collaborative Research Center (SFB) 700, Berlin, June 2012.

Eimer, Thomas R. 2012: When Modern Science Meets Traditional Knowledge: A Multi-Level Process of Adaption and Resistance, SFB-Governance Working Paper Series, No. 35, Collaborative Research Center (SFB) 700, Berlin, June 2012.

Kötter, Matthias 2012: Non-State Justice Institutions: A Matter of Fact and a Matter of Legislation, SFB-Governance Working Paper Series, No. 34, Collaborative Research Center (SFB) 700, Berlin, June 2012.

Koehler, Jan 2012: Social Order Within and Beyond the Shadows of Hierarchy. Governance-Patchworks in Afghanistan, SFB-Governance Working Paper Series, No. 33, Collaborative Research Center (SFB) 700, Berlin, June 2012.

These publications can be downloaded from www.sfb-governance.de/publikationen or ordered in printed versions via e-mail to sfb700@zedat.fu-berlin.de.

The Authors

Sven Chojnacki is professor for Comparative Politics and Peace and Conflict Research at the Otto Suhr Institute for Political Science, Freie Universität Berlin. His research focuses on theories and methods of conflict analysis, changing patterns of warfare, and the dilemmas of peace-building.
Contact: *sven.chojnacki@fu-berlin.de*

Bettina Engels is a post-doctoral research fellow at the Otto Suhr Institute for Political Science, Freie Universität Berlin. Her research focuses on global change and local conflicts, contentious politics, and sub-Saharan Africa (Western Africa, Horn of Africa).
Contact: *bettina.engels@fu-berlin.de*

Research Framework

Governance has become a central theme in social science research. The Collaborative Research Center (SFB) 700 *Governance in Areas of Limited Statehood* investigates governance in areas of limited statehood, i.e. developing countries, failing and failed states, as well as, in historical perspective, different types of colonies. How and under what conditions can governance deliver legitimate authority, security, and welfare, and what problems are likely to emerge? Operating since 2006 and financed by the German Research Foundation (DFG), the Research Center involves the Freie Universität Berlin, the University of Potsdam, the European University Institute, the Hertie School of Governance, the German Institute for International and Security Affairs (SWP), and the Social Science Research Center Berlin (WZB).

Partner Organizations

Host University:
Freie Universität Berlin

University of Potsdam

German Institute for International and Security Affairs (SWP)

Social Science Research Center Berlin (WZB)

Hertie School of Governance