

# Material determinism and beyond: spatial categories in the study of violent conflict

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## 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.

## Abstract

We review recent debates in peace and conflict studies with regard to how spatial categories are integrated theoretically and empirically. We examine three notable strands of research. The first are studies that analyze the influence of topography, borders and resource availability in 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 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. Referring to the vertical dimension of space, we examine how recent research methodologically deals with interrelated scales (local, national, global). We argue that an analysis of the space-conflict nexus should encompass both the materiality of space and its

social adscription; and that both find themselves in a mutually constitutive relationship. Spatial theory therefore provides a useful approach.

## 1. Introduction

Linking space and conflict both theoretically and empirically has become highly fashionable in conflict studies. The frequent citation of the 'spatial turn' is, however, often not more than a matter of 'scientific correctness'. Few substantial claims have been made as to how our knowledge on the relationship between space and conflict can be enhanced effectively. One problem thereby is the fragmented landscape of theoretical narratives and empirical studies. Political and social geographers, political scientists, conflict researchers and development scholars alike all demand that we widen our understandings 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 lies the question as to how far space should 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? Are, for the same reason, some societies more prone to violent conflict than others?

Peace and conflict studies have addressed these questions and related ones in various recent debates. In this article, we critically review these debates and assess how spatial categories are conceptualized both theoretically and empirically. In terms of "additive cumulation", we present three notable strands of research. The first one, going back to the 1970s, is concerned with the influence of topography, borders and resource availability in the occurrence of international and intra-state war. The second strand comprises recent studies on civil war focusing on the relationship between territory and conflict, in particular the relevance of territorial control for conflict dynamics. The third strand is the debate on the relationship between ecological change (climate change in particular), and violent conflict, so-called environmental conflicts. We argue that all three debates are limited to the analysis of material factors that are conceptualized as external to, and thus

influence, social conflictive action. Most existing research fails to include the social adscription and political meaning of the physical materiality of spatial features analytically, be it topography, borders, resources, territory or others. The three debates mentioned above are mainly concerned with the horizontal dimension of space. Subsequently, we examine the vertical dimension of space, i.e. analytical scales, arguing that recent trends in the study of civil war and environmental conflict to base large-n analysis on 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 between the local, national, transnational and global level.

We conclude with 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 to one another with regard to collective conflict. From the perspective of spatial theory - which conceptualizes conflict as social action and space as, at the same time, socially produced and productive - space does not present an additional variable to be added to the analysis of violent conflict. The point is, rather, to examine how conflict can be analyzed from a spatial theory perspective, and how spatial and conflict theory can enter into a productive dialogue – possibly leading to the more important “integrative cumulation”.

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 do neither present these debates in detail nor discuss in length the insights they offer to the study of collective conflict and violence. Neither do we refer to approaches from sociology of space, which are, in most cases, only marginally concerned with the materiality of space, concrete locations and territoriality.<sup>1</sup> 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 are

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<sup>1</sup> 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).

recently 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 neither locate themselves in the debate on the nexus of conflict and space, nor do the respective mainstream debates refer to these studies.

## 2. Topography, borders, and resources

The first strand in conflict research literature referring to spatial categories principally 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 conceptualized as '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 warfare. For example, quantitative studies on the causes of inter-state wars emphasize the importance of territorial issues (boundary disputes) as most war-prone among all contentious issues (Vasquez 2009). However, both the understanding of geography and the twin concept 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', where '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 in respect of resource types,

concentration and location. First, diamonds and oil have highly significant effects, while agricultural goods, by contrast, 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 widely 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 headquarter of a rebel group or the capital of the state. Empirical studies have lined out 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 with 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 incidences 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 of spatial containers encompassing the social world), this type of research persistently operates in a territorial container. It is not 'space' in the sense of spatial theory, that receives attention, but material factors such as resources availability or physical demarcation (bordering) that are used to explain and predict armed conflict.

Most of these studies have in common that they do not principally question the relationship of conflicting action and external 'existing' 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 conflicting action. Certainly, physical spaces have

locatable and measurable properties; but the meaning and impact that such 'objective' conditions have for individuals and social groups are contingent in time and space. Therefore, beyond 'external' material conditions, the relationship of space and conflict revolves around the intangible and dynamic qualities that are 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, etc.). This dimension of social adscription and political meaning of the physical materiality of space has of yet to be reflected in conflict research that focuses on topography, borders and resource occurrence.

### 3. Territory

The second strand comprises recent studies on civil war that focus on one main horizontal dimension of space: 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 predict the spatial variation of violence against civilians in civil wars. Violence becomes a function of different zones of territorial control depending on the degree of control (including areas fully controlled by one actor and areas contested by armed groups). Without 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 from human perception, political and social power relations.

From a spatial theory perspective, the understanding of territoriality has to 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 values (Elden 2010: 804). Control can be defined as social and political practices that ascertain claims about, access to and exclusion from land. Such practices, timely and spatially limited, are, for instance,

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 possibility 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 which possess an 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 and 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); and territory, thus, remains pivotal for understanding social relationships in different spatial settings (Forsberg 1996).

A further type of territorial control goes beyond the economic-material and political-strategic measures. To understand territory and the logics of control more comprehensively, one has to integrate both the societal and discursive dimensions as the legitimization of enforcing rules through societal integration. Thus, territory is more than merely a particular place or piece of land 'controlled by a certain kind of power' (Foucault 2007: 176). Moreover, territory can be seen as a social constructed category, as each individual or group has its own cognition of territories and landscapes. Territorial control in this sense not only sets 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).

Land is, at the same time, a source of domination over people, and control over a certain territory that can be exploited economically (Vandergeest/Peluso 1995: 385). State authority and domination are secured, too, through territorial control – whereby local actors might accept or ignore state practices of territorial control, or

fight against them (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 pivotal, but control over men in the age for military service 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 measures of territorialization aiming at 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, with its recent 'Villagization Plan', tries to settle 15,000 'scattered' rural households in Gambella region (in the very West of Ethiopia, bordering South Sudan). While the program officially aims at providing socio-economic infrastructure to rural people in a remote area, at the same time, it facilitates state authorities' control over mobile pastoral groups at the same time; and drives out people from land plots that the international agribusiness is interested in 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 about access to land and claims to the oil-bearing territory, and, hence, about 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 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 its functionality for political authority. These might have been premature considerations, as argued by David Newman (2010). Territory does not lose 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'. It is perfectly clear that the construction of collective identities - referring to the nation or other 'imagined communities' such as ethnic or autochthonous groups - plays an essential role for violent conflicts (e.g. Horowitz 1985). Most struggles over land between local social groups are, at the same time, conflicts about whose claims to land are seen as legitimate, which, in turn, is closely linked to the social negotiation of citizenship and belonging, inclusion and exclusion. Numerous examples of such conflicts, wherein 'Others' are labeled as strangers, foreigners, migrants and autochthons, could recently be observed all over the African continent (e.g. in Côte d'Ivoire, Zimbabwe, Ghana; Lund 2011; Peters 2004). Territoriality represents a main link in conceptualizing the relationship of collective conflict and identity constructions that conventional understandings of territorial control in the study of civil war fail to integrate. Compared to this, 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 in peace and conflict research that refers 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 of the Intergovernmental Panel on Climate Change (IPCC) was widely paid attention to by politics, media and academia; and in the following years, scholars focused on the question as to how far climate change effects, 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 reached particularly with regard to empirical evidence, as well as to the specification of social and political factors that mediate the relationship of environmental change and violent conflict (e.g. Benjaminsen/Boubacar 2009; Benjaminsen et al. 2012). Some weaknesses remain, however; in particular the persisting focus on the nation-state as the most important level of analysis.

With regard to environmental conflict research, most studies are evidently missing a theoretical concept of space. Changes in the physical-material environment, as well as violent conflict, come across in different ways across time and space. Thus, causal relations of environmental change and conflict can only be constructed in reference to the physical locations where both conflicts and the effects of environmental change take place. Violence is a socially differentiated phenomenon, meaning that at a specific location at one moment in time, not all people are concerned by collective violence in similar ways. Likewise, the social effects of ecological change vary horizontally and vertically, as numerous studies have shown (e.g. Adger 1999; Blaikie 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 as central determinants (Adger 2006). Locations and territories inhabited by people influence their vulnerability, too – but only constitute one variable among others; and one that may be interrelated with other conditions.

An analysis of the spatial dimension of environmental conflicts that only refers to physical-material features – by presenting certain areas such as river deltas, coastal zones, savannah regions, and alike as particularly prone to ecological change effects and conflict risks, for instance – fails to cope with the complexity of ecological and social systems analytically. However, it falls equally short to negate any relevance of physical materiality for violent conflict a priori. Existing models that try to integrate both environmental and socio-political factors in most cases persistently assume a linear causal relationship between ecological change and conflict, whereby social and political institutions are conceptualized as intervening

variables (Homer-Dixon 1999). By contrast, an analysis based on spatial theory assumes material and social processes as mutually constitutive, meaning that, on the one hand, we cannot define any 'natural' environment without taking into account its social and political adscription; and 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 of environmental change and conflict without reproducing over-simplified, unidirectional causal lines – hence, moving us beyond material determinism.

##### 5. Persisting containers: analytical levels and scales

Recent civil war research and the study of environmental conflict alike have attempted to overcome the container concept of the nation-state (Buhaug/ Gates 2002; Buhaug/Rød 2006). However, most studies, in one way or another, 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' in the sense of assuming smaller, but still territorially bounded entities. While grid cells construction does not reproduce the arbitrary demarcations of nation-states, it creates new containers and equally arbitrary boundaries instead, not taking into account any social, political and cultural meaning of territories and places. Furthermore, by deliberately disregarding nation-state borders, grid cells analysis is unable to tackle the meaning these borders, charged historically and politically, can have for local resource conflicts.

Without doubt, recent studies based on disaggregated geographical data add some insights as to the causes of civil wars: they show, for instance, that topographical variables, like forests and mountains, affect the manner in which internal violent conflicts are carried out, and that they are important in determining the prospect of winning a battle or the war (cf. Gates 2002; Buhaug/Gates 2002; Buhaug and Rød 2002). The analytical problems related to nation-state centrism are, however, not being resolved solely by 'down scaling' the level of analysis (cf. Agnew 1994).

The potentials of integrating structural and geometrical vector data<sup>2</sup> methodologically will only be fully tapped into if they are 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, however, hardly investigate the inter-scale relationships between the local, national, transnational and global level. Statistical analysis that is mostly based on the aggregate level of the nation state is rarely linked to local case studies. A multi-scalar perspective of analysis encompassing the interrelationship of the socio-political and the physical-material dimension 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, large-n analysis of inter-communal conflicts does 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, though there is no doubt that these institutions are, in many cases, central to the resilience of local communities towards 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 rather depends 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)<sup>3</sup>

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<sup>2</sup> 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 occurrence, surface areas, settlement or population density, and other).

<sup>3</sup> With out 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, we consider,

## 6. Space and social action

Though spatial categories are, at least rhetorically, frequently referred to in peace and conflict study debates, most existing studies in fact do not analyze space in a theoretically informed sense, but rather specific material conditions, subsumed under spatial terms. In the following paragraphs, we conceptualize a starting point for conflict analysis, as offered by spatial theory, in order to move beyond a material 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; and space cannot be reduced to material features. It remains a core question in spatial theory as to which degree the materiality of space can be granted theoretical autonomy, while acknowledging that it is always socially produced. 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 part of the explanation of social action (Massey 1984). Notwithstanding, 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.

From this perspective, conflict research clearly falls behind the current debates in spatial theory. Most existing 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, thereby, collective conflict. We argue that a more comprehensive understanding should take into account not only the material and the symbolic, identity-related

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from a methodological perspective, the choice of variables depending primarily on data availability as problematic.

dimension of space, but also analyze how both 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 and limit further action. From such a 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 kind of social action enables or hinders certain spatial conditions. The core question is hence not: Which spatial conditions cause, trigger or influence conflict? But rather: How does conflicting action produce space, and what can be concluded from this concerning the spatial dimension of social conflicts?

Power and identity are, thereby, central concepts. 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 means of social action is closely linked to controlling the scope of action of other individuals and social groups. This is what power refers to: the control over persons and material artifacts. Thus, spatial conditions of social action, themselves socially produced and reproduced, are an expression of power relations (Werlen/Weingarten 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 conceptualizing spatial categories in a simple material deterministic way, widely ignores the relevance of identity construction for violent conflict, while studies in the field of identity and conflict (ethnic conflict, inter-communal conflict, nationalism, etc.) hardly take into account the physical-material dimension of the respective conflicts. Spatial theory provides an approach to bridge this gap. David Newman (2010), for instance, has convincingly shown that territory is crucial for the construction of identity, 'Self' and 'Other', inclusion and exclusion. Political identities refer, oftentimes (not always, nonetheless), to territorial defined spaces, though these are not necessarily linked to nations and states but, possibly 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 summed up:

‘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, in consequence, hardly possible to ‘add space and stir’ to an ‘otherwise aspatial analysis’ of violent conflict. However, this is what most existing studies basically do: 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.

### Concluding Remarks

Where does this scientific journey take us? We have stated that “integrative cumulation” is still missing and that most studies lack a theoretical reflection on the relationship of space and conflict, in consequence sticking to deterministic assumptions of material conditions for violent conflict, failing to conceptualize how physical materiality is mediated socially and politically. Instead of simply inverting this approach by focusing solely on social, cultural and political dynamics such as power and identity, we suggest to build the analysis on the mutual constitutive relationship of socio-political and material dimension of violent conflict, based on spatial theory.

From the perspective of conflict research, some societies or regional settings are not more conflict-prone than others per se, yet social, cultural, economic and political factors as well as geographical conditions may create an environment which increases the opportunity and willingness of some actors to solve distributional conflicts by 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 which are common in the rapidly changing environment of violent conflicts further complicate the matter. Therefore, the analysis of the space-conflict nexus has to identify the interaction effects between physical materiality, territorial control, and conflict dynamics. Social conflict thereby has 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 mutual reinforcing conflict-related practices of resource exploitation, territorial separation and political decision-making.

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