

Disaggregating Civil Wars

Project proposal submitted to the European Science Foundation

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1.10.1 Originality of the Collaborative Project and Potential Contribution to Knowledge

The sheer number of internal conflicts over the past years in regions, such as the Balkans, the Caucasus, and the Great Lakes of Africa, has led to a surge of interest in civil war (Lake 2004). In recent years, political economists and quantitative researchers, partly funded by the World Bank, have told us a great deal about the conditions that make countries more likely to experience civil war (Collier and Hoeffler 2004; Fearon and Laitin 2003; for reviews, see Sambanis 2002; 2004). However, this does not mean that their results cannot, and should not, be questioned. We challenge some of the key assumptions and findings of the literature, in particular (A) the putative irrelevance of ethnicity as a cause of conflict, (B) the strong emphasis on opportunity structures at the expense of motivations, and (C) the downplaying of transnational mechanisms.

Our project aims to re-examine these claims by uncovering relevant causal mechanisms. We do so by answering the questions about “*Who?*” and “*Why?*”. A convincing explanation of conflict outcomes has to offer a disaggregated account involving real actors with real motives in their proper social and spatiotemporal context. The contemporary quantitative literature on civil wars rarely answers these questions since micro-level mechanisms are merely postulated and seldom empirically verified. Indeed, existing research has suffered from an overly state-centric approach that considers countries as isolated cases while treating institutions and identities as fixed entities (Sambanis 2004).

Civil war is not a diffuse disease that afflicts countries, but rather a conflict between central state authority and peripheral groups, such as ethnic groups, rebel organizations, terrorist networks and other insurgent actors. Disaggregating conflict processes to uncover the key actor constellations driving conflict allows us to address the three research problems mentioned above. First, it forces us to consider the ethnic identity of the actors involved in the centre-periphery relationship. Second, it demands a more precise understanding of the motivations and grievances of these actors. Third, we need to look beyond the boundaries of the nation-state to capture the transnational character of the actors.

Adopting our framework to understand centre-periphery dynamics implies the following three principles. First, we must move below the state level in our theoretical and empirical work and focus on regions and groups (Principle I). Second, moving below the state level requires us to look at cross-border linkages, i.e. through refugee flows, external support for peripheral groups, etc. (Principle II). Third, governmental institutions and international involvement are hardly unrelated to conflict, but must at least in part be considered as a consequence of conflict (Principle III).

These principles have direct implications for theory, methodology, data collection, and policy making.

First, our principles offer a new way to reflect on the state of the art in conflict research. This synthetic task goes well beyond the current research frontier by addressing actor constellations and spatiotemporal conflict patterns. The regional and explicitly spatial focus opens new theoretical perspectives that so far have been relatively neglected.

Second, our project breaks new methodological ground. Whereas the divide between quantitative, large-scale studies and qualitative research that focuses on a limited number of countries has generated heated debate and blocked potentially fruitful collaborations, we advance research tools that promise to overcome such artificial divisions. As described in the technical appendix (see section 1.10.7), our research efforts rely on a particularly innovative

repertoire of methods which will also be used in various combinations, namely

- spatial statistical analysis,
- geographic information systems (GIS),
- a variety of formal models, including computational ones.

We apply these methods to the broadest sample of civil wars in the post-WWII era. In addition, we will explore in depth regional conflict patterns in the Balkans and elsewhere.

Third, our project generates a web-based “open source” data environment supporting conflict research that introduces new data and integrates existing data sources in a coherent and convenient way. Thanks to extensive reliance on GIS, these resources will offer an unprecedented level of empirical detail, both in terms of space and time.

Fourth, our efforts will bear fruit for policy makers as well. Political risk analysis is a notoriously imprecise business that has so far mostly relied on fragmented area expertise and occasional statistical observations, often based on highly indirect proxies and aggregate measures. Our project integrates a rich set of qualitative and quantitative information in a perspective that relies on state-of-the-art methodology to provide decision-makers with spatially disaggregated and historically contextualized patterns.

1.10.2 Research Design and Methods

Opening the “black box” of the state forces us to consider how the “unpacking” could be done. According to most definitions, civil wars take place within the territory of a state between politically and militarily organized actors, one of which is the country’s government (Sambanis 2004).

The Basic Centre-Periphery Configuration

Following Principle I, as specified above, we introduce a centre-periphery configuration that puts the government at the centre and various challengers to its sovereignty in the periphery. We call this simple framework the Basic Centre-Periphery (BCP) Configuration (see Figure 1).

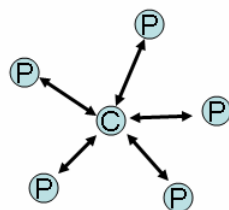


Figure 1. The Basic Centre-Periphery Configuration

Although our interpretation of the centre-periphery model is primarily territorial, it is clear that the degree of territoriality differs from case to case and over time. Although it is not assumed that all conflict groups are clearly or primarily territorially anchored, the project is designed to conceptualize and measure the degree to which this is the case.

The BCP Configuration is not in itself a full-fledged model. A complete model specification requires that the causal mechanisms be identified, including accounting for the institutions and identities referred to in Principle III. Of course, researchers have already relied on centre-periphery frameworks (Rokkan 1970, and more recently Fearon and Laitin 2003), but these

conceptualizations are either too sweeping or too narrowly materialist to capture the full range of relevant conflict mechanisms.

Given the prevalence of the centre-periphery dyad that the conventional definition of civil wars implies,¹ four basic research questions follow naturally. They pertain to identifying the centre and periphery (Q1), mobilization efforts at the periphery (Q2), the effect of the centre's behaviour (Q3), and finally the nature of the centre-periphery relationship (Q4). These questions will be addressed using different theoretical approaches and empirical data in the individual projects as tasks (see sections 2.6 in the individual projects A, B, and C).

Q1. Traditional research on civil wars assumes that the identities of actors engaged in conflict are fixed and given. In reality, however, the boundary between the centre and the periphery changes over time, depending on political institutions and coalitions that determine access to central power. We employ formal models to assess how institutions and identities define the centre-periphery dichotomy and test their implications with cross-national data (Tasks A1 and B1).

Q2. The outbreak of civil war often features a peripheral mobilization effort. By developing detailed game-theoretical models of the collective-action problem of peripheral actors (Task B1), we seek to go beyond the simple greed and grievance dichotomy (Collier & Hoeffler 2004). We will also explain how the mechanisms of mobilization interact with spatial configurations in an integrated model (Task A2).

Q3. Empirical tests have often led to contradictory results on the behaviour of governments. We will disentangle diverse arguments that link state strength to conflict behaviour (Task B2), and study how institutions (e.g., democracy, federalism, etc) modify government behaviour. Over time, these institutions are likely to be affected by conflicts and factors that contribute to conflicts (e.g., ethnic diversity, poverty, etc). Hence, we will develop theoretical models to study the reciprocal relationship between institutions and conflict (Task A3).

Q4. We will extend bargaining theory to study strategic interactions between the centre and the periphery, recognizing that there are important differences between interstate and intrastate conflicts (Task C1). This formalization also allows explaining institutional choices as an outcome of bargaining (Task A3).

The Extended Centre-Periphery Configuration

The cross-border linkages stipulated by Principle II require us to extend the BCP Configuration. We therefore introduce the Extended Centre-Periphery (ECP) Configuration that relaxes the assumption of a “closed polity” to analyze how cross-border mechanisms modify the centre-periphery relations of the BCP. Figure 2 depicts two classes of cross-border links that complicate the analysis of the basic framework. On the one hand, actors outside the conflict region like international organizations (IOs), great powers (GPs) and transnational peripheral actors (P) such as remote diasporas may intervene in internal conflict. Moreover, foreign peripheral groups or centre in the conflict region may intervene in neighbouring centre-periphery conflicts.

¹ The BCP Configuration does not depict inter-periphery connections explicitly, but such links represent an important elaboration that can be expected to have repercussions for mobilization processes.

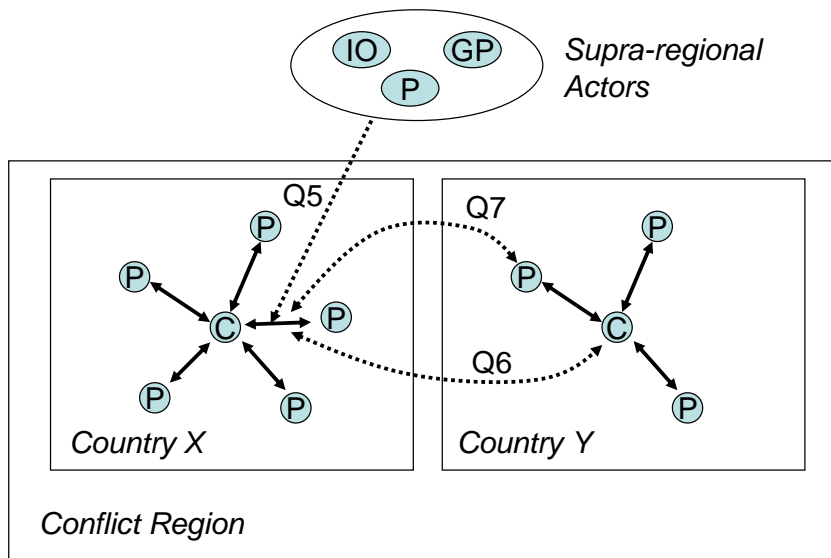


Figure 2. The Extended Centre-Periphery Configuration

Extending the Centre-Periphery Model highlights how dyadic interactions are influenced by interventions and other policies of supra-regional actors (Q5), foreign governments in the region (Q6), and neighbouring peripheral actors (Q7).

Q5. We connect centre-periphery relationships with supra-regional actors to analyze peace-keeping and peace-building operations. Rather than assuming pacific or neutral intentions on the part of outside interveners, their motivations have to be theoretically analyzed and empirically verified (Task C3). We also consider regional influences of diaspora communities on conflict dyads (Task B3).

Q6. Governments in neighbouring states may intervene on behalf of peripheral actors and thus promote conflict diffusion. Hence, we investigate under what circumstances governments are willing, and able to, intervene in order to change the balance of power in a neighbouring state's civil war (Task C2). We also study both theoretical and empirically how neighbouring countries may influence institutional choices in war-torn regions (Task A3).

Q7. Peripheral groups in neighbouring countries may also intervene to affect the outcome of conflicts, and trans-border migration may affect the stability of adjacent states (Task C2). Assessing these risks requires us to pinpoint the exact location of settlements, refugee camps and likely migratory patterns (Task B3).

Our empirical starting point is a world-wide list of civil wars in the post-WWII era, as defined by the Uppsala-PRIO Armed Conflict Data (Gleditsch et al. 2002). We will complement these data in terms of their spatial-temporal context (“where?” and “when?”), identify the actor constellations (“who?”), and integrate this with additional information that can help discriminate propositions on actor motivations and the micro-foundations of conflict (“why?”). Some of these questions will be hard to answer based on global quantitative data. Therefore, all projects (A through C) will critically examine the same conflict patterns in the Balkans based on conflict narratives and in-depth case studies, in addition to the projects’ particular conflicts of interest.

1.10.3 Competence and Expertise of the Individual Project Partners

All project members have extensive experience from conducting research and publishing in peer-reviewed, high-quality outlets in conflict research as described in the respective sections 2.6.3 of the individual projects. Each node has pioneered innovative research approaches that complement each other (see section 1.10.4). Furthermore, the partners possess well-developed institutional infrastructures for research management and networking activities.

1.10.4 Contribution of Individual Projects to the Collaboration and Arrangements for Co-ordinating the Collaboration

The research questions outlined above (Q1 through Q7) are often treated separately. However, we argue that they are very much interconnected, and that solutions developed to any one individual problem will generate insights that will facilitate tackling other research problems.

Theoretical collaboration

Figure 3 illustrates the research questions shared by more than one individual project. This allows us to address common research topics from different theoretical viewpoints.

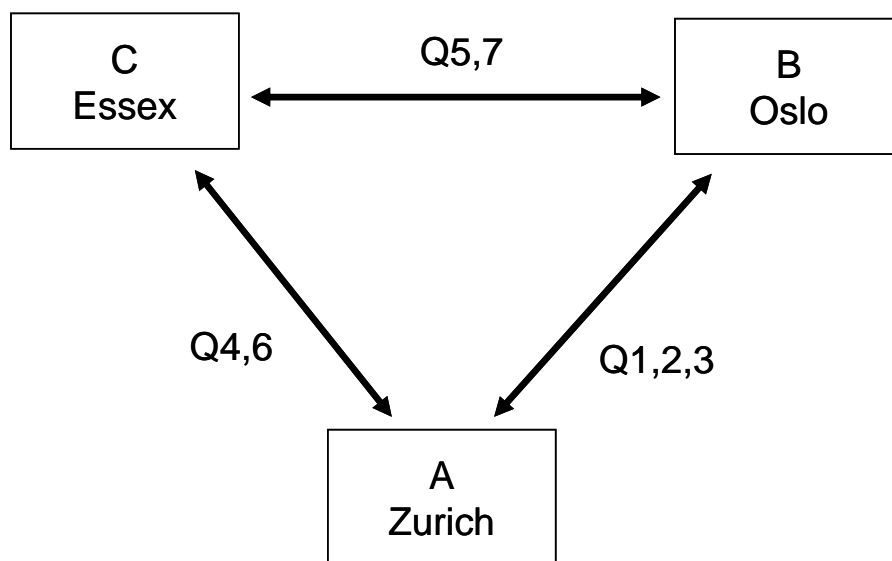


Figure 3. The network structure of international collaboration.

Methodological collaboration

Each individual project will take the lead within its own area of methodological specialization (see section 1.10.1 above and the technical annex in section 1.10.7 for a brief description of these methods). Our common research agendas ensure methodological collaboration and innovation across the various project nodes.

Data collaboration

We offer significant gains in terms of new empirical data collection. Each individual project will generate data necessary to complete its research tasks and at the same time draw on data resources made available by the other projects. Combining data from different sources will allow for multiple tests of our theoretical implications.

Coordinated work schedule

In order to synchronize the individual projects, our collaborative project will operate according to a common plan:

- Phase I. (Semester 1) Inventory & Exploration: Inventory of relevant established literatures and exploration of new theoretical areas.

Conference I (Oslo): Discussion of results from Phase I.

- Phase II. (Semester 2-3) Node-specific theory-building: This includes project-specific modelling and data collection.

Conference II (Essex): Discussion of results from Phase II.

- Phase III. (Semester 4-5) Cross-fertilization among the nodes: At this point, we explore the synergies among the national nodes by exchanging theoretical and empirical modules.

Conference III (Zurich): Wrapping up the main results of the project.

- Phase IV. (Semester 6) Dissemination phase: Preparing the results for publication, including web-based research tools.

Conference IV (Zurich): International conference bringing together researchers and policy makers.

1.10.5 Justification for the Level of Funding Requested

The scourge of civil violence poses a major challenge to scholars and policy makers alike. As noted above, internal conflict by far surpasses interstate warfare in terms of the human suffering it generates. Given the urgency of this situation and the fact that civil wars remain relatively understudied, even modest achievements in this field can be expected to yield significant gains.

Because there are no shortcuts for the groundwork necessary to increase the resolution of our analyses, elaborate, and thus relatively expensive, data collection will be necessary. It is therefore all the more important that these efforts be shared by as many scholars as possible. Whereas scientific collaboration in conflict research is already firmly established in the US, structures supporting collaborative ventures on conflict research in Europe remain relatively underdeveloped.

Again, considerable networking resources will be needed to improve the situation on this side of the Atlantic. The project participants have already taken the first steps toward scientific collaboration within Europe under the heading of GROW-Net, i.e. Geographic Representations Of War. Preparatory meetings have been held in San Diego (March 2005),

Zurich (September 2005), and Oslo (February 2006), and our network has organized panels at conferences hosted by the American Political Science Association (2004, 2005, and 2006), the European Consortium for Political Research (2005), and the International Studies Association (2006).

However, an intensification of these networking activities will require more consistent financial support than has been available so far. The resources budgeted for networking activities within the framework of the project will provide the required basis for these efforts.

1.10.6 Planned Outputs (Publication and Dissemination Activities)

Our collaborative project will produce a series of high-quality scholarly publications, including monographs, edited volumes and special issues, as well as individual refereed articles and working papers. We have already submitted a proposal for a special issue in the *Journal of Peace Research* in 2008. The output will also include new datasets and modelling toolkits. The web-based platform hosted by Project B provides easy public access to updated project information, publications, common data resources and other research tools.

The planned conferences with invited international guests will also contribute to the dissemination of our findings. In particular, Conference IV, in collaboration with *swisspeace*, serves to broaden the reach of dissemination activities to a wider policy audience. In addition, the project partners actively pursue close collaboration with think tanks, national authorities and other policy-relevant institutions.

In collaboration with the International Relations and Security Network (ISN) at ETH Zurich, Project A will host the central web server for the collaborative project.

1.10.7 Annexes (including no more than one single-sided A4 sheet for references and no more than one double-sided A4 sheet for technical details, if appropriate)

Project A (Zurich): Agent Based Modelling (ABM)

ABM is a particular type of computational methodology that allows the researcher to create, analyze, and experiment with, artificial worlds populated by agents that interact in non-trivial ways. In these “complex adaptive systems,” computation is used to simulate agents’ cognitive processes and behaviour in order to explore emergent macro phenomena, i.e. structural patterns that are not reducible to, or even understandable in terms of, properties of the micro-level agents. Such “bottom up” models typically feature local and dispersed interaction rather than centralized control. Moreover, as opposed to traditional models that assume either a small number of dissimilar or numerous identical actors, agent-based models normally include large numbers of heterogeneous agents. Rather than studying equilibrium behaviour, the focus is often on dynamics and transient trajectories far from equilibrium. Finally, instead of assuming the environment to be fixed, many agent-based models let the agents constitute their own endogenous environment. Thus, agent-based modelling should be seen as a complement to rational-choice techniques, which has the potential to bridge the gap between conventional formal tools and qualitative theorizing of complex settings. Existing applications in the social sciences include neighbourhood segregation, social stratification, artificial stock markets, ethnic conflict, party formation, balance of power politics, and cooperation among democratic states.

Project B (Oslo / Trondheim): Geographical Information Systems (GIS)

GIS is commonly defined as information systems that represent, transform, analyse, and visualize geographical data. Geographical data are ordinarily stored in GIS according to one of two models: Raster data models divide the world into a sequence of identical discrete entities, by imposing a regular grid; vector data are constructed from points, lines, and polygons. Raster data are often used to represent continuous spatial data like altitude, population density, or percentage of rough terrain. Vector data are often used to represent discrete spatial data like for instance capital cities (points), road network (lines) and geographical extensions of armed conflicts (polygons). In GIS, spatial data are organized into thematic map layers, wherein each map layer contains information about a particular subject and is stored as a separate file (or series of files). Geographical information is created by queries of individual datasets, through overlaying a number of different layers of geographical data, and through complex modelling and simulation. A very powerful way of using GIS is to combine several datasets in order to analyze and model spatial phenomena (cartographic modelling). It employs algebra where single-factor maps are treated as variables that can be flexibly manipulated using a set of GIS functions. Geotechnical engineers can generate maps based on factors contributing to the risk of landslides (e.g. slope steepness, soil type and depth, and distance to rivers) and thus identify landslide prone areas. In a similar manner, conflict researchers may combine data on sub-national and cross-national conflict-generating factors to identify areas most at risk (‘hazard mapping’). GIS data may be analyzed by these techniques, or adapted to more standard statistical analysis (see Technical Annex section 2.6.7, Project B).

Project C (Essex): Spatial Statistics

Spatial statistics allows incorporating a hypothesized network of linkages between observations in a statistical model and estimate the degree of dependence among actors and outcomes. By treating spatial dependence as “substance” rather than a “nuisance”, we can make inferences about hypotheses on what the sources or structure of dependence might look like, based on the observed interactions among actors. Although it is well known that states that are close or connected to other states undergoing civil war have considerably higher risk of conflict than would be expected from attributes of the country or the actors alone, existing work has not made much progress on distinguishing whether such observed dependence is due to specific transnational linkages between the actors (e.g., alliances with co-ethnic groups or states), or due to conflict externalities that increase the risk of conflict, not specifically related to the actors (e.g., the economic consequences of conflict or refugee flows, or a greater availability of arms). Spatial statistics is closely linked to network analysis or graph theory. Whereas much network analysis traditionally has looked at descriptive measures summarizing interaction structures, recent work in network analysis explores how differences in network characteristics can give rise to variation in possible outcomes or generate different distributions of phenomena. In the case of civil war, one can use similar approaches to extend the empirical analysis by looking at how variations in common or interesting plausible network structure can change the prospects for peace and conflict.

References

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SECTION TWO: INDIVIDUAL PROJECTS			
INDIVIDUAL PROJECT A		Country:	Switzerland
		EUROCORES Funding Agency:	Swiss National Science Foundation (SNF)
2.1 Principal Investigator	<i>Title</i> Prof.	<i>FAMILY NAME</i> Cederman	<i>First Name(s)</i> Lars-Erik
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2.2.2 Institution:	University of Zurich		
2.2.3 Dept/Faculty:	Institute of political science		
2.3 Co-applicant 2	<i>Title</i>	<i>FAMILY NAME</i>	<i>First Name(s)</i>
Gender:	<i>M F</i>	Date of Birth:	<i>dd/mm/yyyy</i>
2.3.1 Position held:			
2.3.2 Institution:			
2.3.3 Dept/Faculty:			
2.4 Co-applicant 3	<i>Title</i>	<i>FAMILY NAME</i>	<i>First Name(s)</i>
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2.4.1 Position held:			
2.4.2 Institution:			
2.4.3 Dept/Faculty:			

2.6 Description of Individual Project A: Contextualizing the Institutional Mechanisms of Ethno-Nationalist Insurgencies

2.6.1 Originality; Potential Contribution to Knowledge

Leading political economists emphasize the impact of materialist and logistical factors on conflict while down-playing the role of ethnicity (Fearon & Laitin 2003; Collier & Hoeffler 2004). While some question this “non-result” and attribute more causal power to ethnic factors, it remains the dominant view of the field (e.g., Sambanis 2004). Our project questions this claim. Far from being immaterial to conflict, we postulate that powerful excluded minorities have not only the means but also the motivations to challenge majority groups.

The proposed research relies on the guiding principles of the ECRP project. By disaggregating the nation-state, our focus will shift from general measures of ethnic diversity to measures sensitive to institutionally conditioned power relationships (Principle I). This shift in levels of analysis reveals that prevailing group identities and relevant institutions depend on conflict themselves and have to therefore be treated as integrated components of conflict processes (Principle III). Moreover, these reciprocal relationships require consideration of cross-border linkages (Principle II).

Our research unfolds in three steps. First, we assess how institutions affect the boundaries between the constitutive parts of the Basic Centre-Periphery (BCP) configuration. Different institutional arrangements determine the access to central power enjoyed by peripheral actors (Task A1). These actors’ geographical location is also of great importance (Buhaug & Gates 2002). Hence, we study the geopolitical dynamics involving centre-periphery dyads at the group level (Task A2). Furthermore, it is necessary to study how conflict influences both identities and institutions. Institutional choices are affected by previous conflict patterns and peripheral ethnic identities form in response to logistical conditions and institutional developments (Task A3).

By addressing these theoretical tasks, we put the literature on nationalist insurgencies on a more solid conceptual footing. This research combines innovative formal modelling techniques, such as rational-choice and computational models, with the overall project’s data sources, including geographic information systems (GIS) (see annex 2.6.7).

2.6.2 Research Design and Methods

In this section, we specify the relevant methods and data sources for each our research tasks.

Task A1. Exploring the impact of institutions on centre-periphery boundaries. The commonly accepted definition of civil wars presupposes a clear identification of the state as the power centre and various actors as peripheral challengers. Focusing on the latter as ethnic groups, our BCP Configuration suggests that the degree to which an ethnic group is politically included depends on the nature of the country’s political institutions. Two dimensions will be analyzed in detail: (i) different types of democracy and consociational power sharing, and (ii) federalism and regional autonomy arrangements (Roeder and Rothchild 2005).

Based on initial work (Hug 2005) we will develop formal models to understand how different institutional arrangements interact with various contextual factors to create incentives for peripheral actors to participate at the centre. Do these incentives lead actors to participate at the political centre instead of choosing a “peripheral strategy?” However, centre-periphery

boundary formation does not depend exclusively on individual rational choices. Computational models of identity formation open the analysis to a broader set of mechanisms that includes adaptation and socialization (Cederman 2005). To support these modelling activities, we rely on GROW-Lab, a newly developed software library, see Appendix 2.6.7 below.

Empirical tests of the implications of our formal models require data on political institutions (e.g., Beck et al. 2001) and ethnic identities (collaboration on “Ethnic Groups in Power” with Professors Wimmer and Posner at UCLA).

Task A2. Analyzing the geopolitics of centre-periphery dyads. Previous research has tried to assess the effect of ethnic diversity by relying on raw demographic estimates (Cederman and Girardin forthcoming). In the BCP Configuration, the main challenge is to analyze power projection geographically and to employ other measures of power. Based on the Soviet ethnographic source *Atlas Narodov Mira*, we have already coded ethnic groups as polygons in a GIS database (Cederman, Rød and Weidmann 2006). We plan to merge these data resources with geo-referenced data on groups from Projects B and C.

Measurements of the centre-periphery power balance should be sensitive to ways that institutional settings influence the assignment of political influence. Thus, we rely on computational models to study the effect on conflict of ethnic settlement patterns combined with particular institutional arrangements. Empirical tests based on existing ethnicity data (Cederman & Girardin forthcoming) need to be extended to factor in space and power. Early results conform that centre-periphery dyads featuring strong excluded minorities are especially conflict-prone (Buhaug, Cederman and Rød, 2006). This will require geo-referenced data on groups from Project B and the dyadic dataset of Project C.

Task A3. Endogenizing political institutions and identities based on ethnic and geographic diversity. Whereas most quantitative studies assume that institutions are fixed, we study how institutional choices are a function of conflict processes and the regional context. Based both on the BCP and ECP Configurations, we account for changes in regime type due to internal and external factors. Toward this end, we will develop formal models that explain institutional choices that depend on ethnic identities and other contextual factors, including cross-border institutional developments (e.g. regime change in neighbouring countries, see Cederman & Gleditsch 2004). Our newly collected data on the location of ethnic groups provides a new way to estimate the ethnic composition of federal sub-units. In this context, we expect to benefit from important synergies with the project “Democratizing divided societies in bad neighbourhoods” (see section 1.4).

Our empirical tests will link the empirical data of Tasks A1 and A2 to spatial information coded in Project C. Combining these data sets with existing civil war data enables us to test our theoretical findings in an econometric framework that explicitly captures the effect of endogenously chosen institutions. Spatial statistical analysis will inform these empirical tests.

2.6.3 Competence and Expertise

Lars-Erik Cederman has pioneered the use of computational modelling to questions of identity formation and conflict processes in international relations (Cederman 1997, 2002), and has supported this innovative approach with econometric studies. Recently, he has extended his research to address the role of ethnicity in civil wars (Cederman forthcoming).

Simon Hug has worked extensively on formal theoretical models of political institutions and

has developed empirical (statistical) models to test their predictions. His more recent work has focused on how political institutions affect societal conflicts (Hug 2005), including civil wars (Christin & Hug 2004) and violent contestation (Hug 2003).

2.6.4 Contribution to the Collaboration

At the theoretical level, Project A contributes to our overall project by uncovering institutional mechanisms that structure interactions between the centre and ethnic groups, and by highlighting the ways in which these institutions and ethnic identities are endogenously formed. Our project will suggest ways to integrate geographic characteristics of centre-periphery dyads into formal models. Thus, we offer answers to research questions Q1, Q2 and Q3 that will be helpful to Project B.

Project A's methodological commitment to complex formal models complements the modelling efforts of Projects B and C. Modular modelling templates and structures will be provided through our web-based platform. Such tools enable us to relax the strict assumptions of more conventional modelling approaches. This is especially important where cross-border mechanisms increase the complexity of the analysis (e.g. Task C2).

Finally, our efforts to geo-reference ethnic groups around the world provides a valuable alternative data-source to support empirical scrutiny of conflict processes. We will achieve this task by integrating data sources developed by other national projects, especially the GIS-based resources produced by Project B. Moreover, the new database on "Ethnic Groups in Power" (EGIP) provides the information necessary to evaluate the impact of ethnic power relations on conflict propensity (e.g. Task B2).

2.6.5 Justification for Funding Requested (explain why items requested are necessary for the research)

Each of the persons hired for the three positions will be responsible for one of the research tasks. The first PhD student will focus on Task A1, but will also integrate our datasets both within and outside Project A. The two PhD students will devote most of their time to the two remaining tasks.

We plan to hold a conference and a smaller workshop in Switzerland. Project A will cover all the local costs, including meals and accommodations, for the participants from other countries. In case of non-ECRP participation, travel costs will also be funded through the Project A budget. Moreover, the travel costs of the participants of Project A related to the conferences and workshops organized by the other individual projects will also be covered. These networking initiatives are crucial for the coordination of the overall project activities. Finally, to ensure an optimal dissemination of our project results, we also plan to participate at international conferences.

2.6.6 Planned Outputs (publications and other dissemination activities)

In addition to the activities specified in section 1.10.6, we will establish close collaboration with the Swiss governmental think tank *swisspeace* to allow for direct access to policy makers and other think-tanks. We will also establish contacts with various international organizations based in Geneva, Switzerland, in order to keep them informed about the results of our research efforts. Finally, we plan to create dynamic risk maps for civil wars based on our unique data collection.

2.6.7 Annexes (including no more than one single-sided A4 sheet for references and one double-sided A4 sheet for technical details, if appropriate)

GROW-Lab: A framework for spatiotemporal simulations of conflicts

GROW-Lab is a software toolkit that facilitates the modelling, execution, analysis, and validation of complex social processes, with a special focus on political violence. This tool is designed as a collection of modular software components, which are expected, when implemented and integrated, to bring the development of agent-based simulations to a higher level of realism than that offered by current computational tools.

GROW-Lab will be provided as a Java class library. (Java is a modern, all-purpose programming language). The core of the toolkit consists of four components that support:

- calibration of models to empirical facts based on imported geo-referenced information from GIS systems;
- effective modelling of complex network and hierarchical relationships among social actors and efficient scheduling of their interactions;
- execution of large numbers of parallel simulation runs on a cluster of independent computers to test the sensitivity of the models; and
- statistical and visual analysis of simulation runs introducing various innovative representations of social systems in order to facilitate exploration of dynamic behaviours, debugging and validation.

In sum, GROW-Lab will bring unprecedented simplicity and realism to computational modelling, thus allowing the modeller to focus on substantive rather than technical issues.

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Curriculum Vitae, Lars-Erik Cederman

Education

- 1988 Uppsala University, Sweden. M.Sc. in Engineering Physics.
 1990 Graduate Institute of International Studies, Geneva, Switzerland.
 M.A. (*Diplôme d'études supérieures*) in International Relations.
 1994 The University of Michigan, Ann Arbor, United States. Ph.D. in Political Science.

Employment and Awards

- 1995 The University of Michigan, Ann Arbor, Horace H. Rackham Distinguished Dissertation Award.
 1994-95 Graduate Institute of International Studies, Geneva, Switzerland.
 Chargé d'enseignement (lecturer)
 1995-97 University of Oxford. University Lecturer and Fellow at Somerville College.
 1997-99 University of California at Los Angeles. Assistant Professor.
 1999-2000 European University Institute, Jean Monnet Fellow
 2000 Mershon Centre, Ohio State University, The Furniss Award
 2000-2001 John M. Olin Institute for Strategic Studies, Harvard University, Visiting Scholar
 2001-03 Harvard University. Frederick S. Danziger Associate Professor of Government.
 2003- Swiss Federal Institute of Technology Zurich (ETH). Professor of International Conflict Research.

Professional Activities

Member of the editorial boards of *International Organization*, *European Union Politics*.
 Reviewer for the *American Journal of Political Science*, *American Political Science Review*,
 Cambridge University Press, *European Journal of International Relations*, *International Organization*,
International Studies Quarterly, *Journal of Conflict Resolution*, Sage Publishers, Springer Verlag,
Swiss Political Science Review, *Journal of Artificial Societies and Social Simulation*,
 American National Science Foundation.

Recent Relevant Publications

- Beyond Fractionalization: Mapping Ethnicity Onto Nationalist Insurgencies. With L. Girardin. Forthcoming in the *American Political Science Review*.
 Articulating the Geo-Cultural Logic of Nationalist Insurgency. In *Order, Conflict, and Violence*, edited by S. Kalyvas and I. Shapiro, forthcoming with Cambridge University Press.
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 Back to Kant: Reinterpreting the Democratic Peace as a Collective Learning Process. *American Political Science Review* 95 (2001): 15-31
Emergent Actors: How States and Nations Develop and Dissolve. Princeton: Princeton University Press, 1997

Curriculum Vitae,

Simon Hug

Education

- 1984 - 1987 Université de Genève, Licence en science politique (B.A. in political science)
 Summer 1987 and 1991 summer training program in quantitative methods in social research, Inter-university Consortium for Political and Social Research, University of Michigan, Ann Arbor, USA
 1987 - 1989 Université de Genève, Diplôme d'études supérieures en science politique (M.A. in political science)
 1990 - 1992 University of Michigan, Master's degree in Political Science
 1992 - 1994 University of Michigan, Ph.D. in Political Science

Employment and Awards

- 1990 - 1991 Fulbright scholarship
 1992-1996 Chargé d'enseignement (lecturer) at the Department of Political Science, University of Geneva
 1996-2000 Maître assistant (lecturer) at the Department of Political Science, University of Geneva
 1996-1997 Jean Monnet fellowship, European University Institute, Florence
 1997-1999 Visiting scholar at the Department of Political Science, University of California, San Diego
 2001-2002 Assistant Professor, Department of Government, University of Texas, Austin
 2002-2005 Professor and Director at the Institut für Politikwissenschaft, Universität St. Gallen
 2005- Professor at the Institut für Politikwissenschaft, Universität Zürich

Professional Activities

- Member of the editorial board *European Union Politics*, *Electoral Studies*, *Swiss Political Science Review*
 Member of the "advisory board" of Voteview International (University of California, Berkeley)

Recent Relevant Publications

- Tax Evasion, Trust, and State Capacities*. (2006 (forthcoming)). Bern: Peter Lang. (co-edited with Nicolas Hayoz).
 Federal Stability in Unequal Societies *Constitutional Political Economy* (2005) 16 (2) 149-160.
 Occurrence and Policy Consequences of Referendums. A Theoretical Model and Empirical Evidence. *Journal of Theoretical Politics*. (2004) 16(3) 321-356.
 Selection Bias in Comparative Research. The Case of Incomplete Datasets. *Political Analysis*. (2003) 11(3) 225-274.
 Veto Players and Referendums around the World. *Journal of Theoretical Politics*. (2002). 14(4 (October)) 465-516. (with George Tsebelis)
 Correcting for Selection Bias in Social Movement Research. *Mobilization*. (1998) 3(2) 141-161 (with Dominique Wisler).

SECTION TWO: INDIVIDUAL PROJECTS			
INDIVIDUAL PROJECT B		Country:	Norway
		EUROCORES Funding Agency:	The Research Council of Norway
2.1 Principal Investigator	<i>Title</i> Prof.	<i>FAMILY NAME</i> Gates	<i>First Name(s)</i> Scott Geoffrey
Gender:	M	Date of Birth:	29/12/1957
2.1.1 Position held:	CSCW Director and Professor		
2.1.2 Institution:	International Peace Research Institute, Oslo (PRIO)		
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2.2 Co-applicant 1	<i>Title</i> Dr.	<i>FAMILY NAME</i> Hegre	<i>First Name(s)</i> Håvard
Gender:	M	Date of Birth:	05/06/1964
2.2.1 Position held:	Research Professor		
2.2.2 Institution:	International Peace Research Institute, Oslo (PRIO)		
2.2.3 Dept/Faculty:	Centre for the Study of Civil War (CSCW)		
2.3 Co-applicant 2	<i>Title</i> Dr.	<i>FAMILY NAME</i> Rød	<i>First Name(s)</i> Jan Ketil
Gender:	M	Date of Birth:	16/07/1966
2.3.1 Position held:	Associate Professor		
2.3.2 Institution:	Norwegian University of Science and Technology (NTNU)		
2.3.3 Dept/Faculty:	Department of Geonomics / also CSCW Associate Researcher		
2.4 Co-applicant 3	<i>Title</i> Dr.	<i>FAMILY NAME</i> Buhaug	<i>First Name(s)</i> Halvard
Gender:	M	Date of Birth:	09/09/1972
2.4.1 Position held:	Post-doc / Senior Researcher		
2.4.2 Institution:	International Peace Research Institute, Oslo (PRIO)		
2.4.3 Dept/Faculty:	Centre for the Study of Civil War (CSCW)		

2.6 Description of Individual Project B: The Strategic Use of Violence for Political Goals

2.6.1 Originality; Potential Contribution to Knowledge

The research projects of Collier et al. (2003), Fearon & Laitin (2003) and Collier & Hoeffler (2004) have made important contributions to the study of civil war by focusing on *opportunities* for organizing violent rebellions. They stress that the *motivations* social groups may have for challenging the government are of little relevance if opportunities to act are absent. Hence, the focus has been on the opportunities provided by rebel groups' environments rather than on the actors themselves. Project B moves beyond this perspective by examining the organizational structure and strategic environment of peripheral groups, and the conditions under which armed rebellion is a useful *strategy*. Neither opportunity nor motivation is relevant if armed rebellion is perceived as a dysfunctional strategy.

Although this earlier research partly theorizes at the level of individual rebel groups, its empirical analyses were conducted at the country level. Project B addresses this shortcoming by disaggregating the nation-state (Principle I) and analyzing the groups' political strategies. The project also examines how cross-border linkages such as bases in neighbouring countries and spillovers through refugee flows affect whether strategies include violence (Principle II).

Project B identifies peripheral actors by geographic location to supplement the focus on ethnic groups prevalent in other projects. The project strengthens this spatial dimension by coding and analyzing disaggregated conflict and refugee flow data, and by adapting GIS data for use as explanatory variables.

The contribution is organized as three tasks. The first (Task B1) concentrates on *how* rebel groups organize, with a particular emphasis on geography. The second (B2) investigates the *whys* of using violence for political goals, emphasizing under what conditions and where this strategy is likely to be chosen. The third task (B3) focuses on the spillover effects of these issues through the displacement of populations.

This focus on the strategic aspects of rebellion contributes to theory-building. The development of geographically disaggregated GIS datasets allows us to reappraise dominant hypotheses. Moreover, such data offers the opportunity to produce hazard maps that can identify areas most at risk for intrastate violence.

2.6.2 Research Design and Methods

The project proceeds in three steps:

Task B1. Analyzing the identity and organizational structure of rebel groups. This task is concerned with *how* rebel groups organize as peripheral actors in the BCP Configuration and seeks to understand geographic and temporal patterns of group formation, recruitment, strategies and tactics. Geographic factors are fundamentally important for understanding the supervision, oversight, financing and control of rebel organizations. Still, few have systematically considered the way that geography impacts the organizational structure of rebel groups. Military tactics and strategies must address geographic issues, which shape the range of options for engaging the enemy in battle, supplying troops, and securing income, as well as the supervision, control and recruitment of troops. How a rebel group positions itself geographically influences the group's organizational structure. Examining how a group develops or sustains an identity to foster group cohesion as well as to promote recruitment in

a broader community is another aspect of this task. Organization and identity exhibit a dynamic relationship shaped and adapted to geographic context.

Task B2. Analyzing incentives for the use of violence. Task B2 highlights *why* rebel groups choose to use violence for political purposes. Previous research shows that organized violence is not likely to be a viable strategy in areas where the government is militarily and politically strong, nor where opportunities for financing an organization are scarce. But the choice of strategy is not strictly dependent on relative power or resource distribution in polarized societies. Non-violent means are preferred when there are opportunities to voice grievances through formal institutions. Task B2 therefore focuses on access to institutional channels of political and economic influence for different groups.

Task B3. Mapping refugee flows and conflict diffusion processes. Task B3 studies how external factors affect the strategic considerations of rebel groups and governments, with particular emphasis on the role of refugee flows. The task studies internal displacements as well as those that cross national borders. The causes and consequences of refugee flows will be analyzed in terms of the frameworks in B1 and B2, according to which displacement is often a deliberate strategy for actors in conflicts, but it also affects strategic choices more indirectly by facilitating recruitment and fostering the creation of bases in new regions and countries. Population displacement also critically alters the strategic considerations of affected groups, both the displaced group(s) as well as the indigenous populations in receiving regions.

The three tasks make use of formal models to analyze the strategic considerations for actual and potential rebel groups. Central to all three tasks will be the coding of a detailed, disaggregated conflict dataset that covers Sub-Saharan Africa, and of geo-coded data on refugee flows in order to validate mechanisms of conflict diffusion. This data collection effort complements additional geo-referenced data collected at PRIO and elsewhere on civil war and their traditional explanatory factors (e.g., lootable resources, population distributions, ethnic configurations, etc.). These tasks also benefit from data collection efforts in other projects, particularly the efforts of Project A to geo-reference ethnic groups and the rebel-government dyadic data collected in Project C.

2.6.3 Competence and Expertise

Scott Gates heads the Centre for the Study of Civil War (CSCW) at PRIO, one of Norway's 13 designated national centres of excellence. His high profile in conflict research includes particular expertise in game theory and organization theory. His formal work on recruitment and allegiance in rebel organizations is seminal. Gates co-authored one of the earliest geographically disaggregated empirical studies of civil war (Buhaug & Gates, 2002). He has worked with Hegre and others on the stability of political institutions and how they affect civil war onset.

Håvard Hegre's expertise lies in conflict research and empirical analysis. He has written extensively on how political institutions relate to conflict and how economic factors such as trade and development alter conflict patterns. Hegre has developed statistical techniques that may be adapted to the study of disaggregated conflict data, and he leads key data collection efforts at PRIO.

Jan Ketil Rød possesses special skills in geographical information processing with an emphasis on cartographic visualisation of statistical data. He is an expert on GIS databases.

The Centre for the Study of Civil War, its host institution PRIO, and the formal association with NTNU offer a fruitful environment for conflict research. Gates, Hegre and Rød are all employed by the CSCW. Students and postdocs will be recruited from this milieu, which includes at least four women.

2.6.4 Contribution to the Collaboration

At the theoretical level, Project B contributes to the collaborative project by analyzing how and why actors use organized violence to affect political outcomes.

Task B1 contributes to the investigation of mobilization efforts in the periphery (Q2). The role identity plays in maintaining group cohesion and recruitment is also examined (Q1). The game-theoretical analysis of organization and strategic action in this task complements the computational models in Task A2. The geographically disaggregated empirical analysis under Task B1 informs these other tasks.

Task B2 also relates to the issue of mobilization (Q1) & (Q2), by focusing on *why* peripheral groups choose to mobilize military organizations. The collaboration under this task resembles that of B1. The specific focus on the use of violence as a strategic tool in political contests, however, relates to the behaviour of the centre in centre-periphery interactions (Q3), and therefore benefits from, and contributes to, Task A3.

Task B3 focuses on the importance of refugee flows (see Q7). This task joins forces with Tasks C2 and D3. Additionally, large-scale population displacement often leads to the involvement of other international actors such as humanitarian organizations, influential regional actors and powerful states (see Q5).

Project B will also produce a disaggregated conflict dataset and analytical techniques developed to handle this and other GIS databases.

2.6.5 Justification for Funding Requested (explain why items requested are necessary for the research)

Requested staff funds will support 50% of a post-doc and 25% of a research assistant, including respective overheads, to be engaged for 3 years.

The postdoc will analyze and map refugee flows and conflict diffusion processes (Task B3) as well as contribute to the empirical analysis under Task B1 and B2. The RA will primarily collect and code disaggregated conflict data, a labour-intensive undertaking. These tasks are essential to the overall design of the project and the need to generate new data, but they exceed the capacity of the named senior project staff. The latter's empirical, methodological and theoretic contributions, outlined above, connect to ongoing CSCW research and can thus be covered by other sources.

Requested travel, subsistence and consumables funds cover

- Workshop activities within the project, for Project scholars and PhD students with related thesis topics
- joint panels by Project scholars and PhDs at international conferences
- Two-day conference at PRIO, for project affiliates and selected externals

2.6.6 Planned Outputs (publications and other dissemination activities)

In addition to the activities specified in section 1.10.6, Project B will produce:

Data:

Disaggregated conflict dataset

Geo-coded refugee flow data

Policy Relevant Output

Hazard maps of political risk at the sub-national level

Web publications:

All datasets of the collaborative project will be made available at a repository developed by the CSCW.

2.6.7 Annexes (including no more than one single-sided A4 sheet for references and one double-sided A4 sheet for technical details, if appropriate)

Providing geographically disaggregated data

The empirical component will address the need to move below the state level by coding precise data on the geographic location of armed conflicts. The location data provided by the Armed Conflict Dataset (Buhaug & Rød, 2006; Gleditsch et al. 2002) represent the first systematic attempt to map the sub-national location of intrastate conflicts. In this project, the geographical extent of a conflict is defined to include all locations of fatal battles between government forces and the opposition side as well as all rebel-held territories. For simplicity, the conflict zones are then coded as the smallest spherical area that encompasses the ‘true’ conflict zone, represented by latitude and longitude coordinates and a radius indicator.

In Project B, we will refine these location and extent data by collecting information on the individual events within each conflict. Events such as battle locations, rebel presence, and rebel held locations and bases (typically several hundred events per conflict) will be geo-referenced and associated with specific dates within the conflict. The dataset will cover most of Sub-Saharan Africa and the Balkans from 1960 to the present. In a pilot project, we have compiled data for a handful of African conflicts (Raleigh & Hegre, 2005).

We will also assemble geographically disaggregated data on other relevant factors, such as location of ethnic groups, population distribution, and salient resources such as oil wells or diamond mines. These data will mostly be taken from existing sources and adapted for analysis with the disaggregated conflict data, but we will also generate new data.

Geographically disaggregated data raise methodological issues that are new to conflict research. We will use a combination of GIS techniques and statistical methods to handle temporal and spatial dependence to analyze these data.

Statistical Methods

We will also adapt the GIS data for statistical analysis by aggregating data spatially into equal-size territorial units (e.g., 10x10 km or 100x100 km depending on research question). This design allows very exact analysis of the relationships between the location of a conflict and of variables hypothesized to exacerbate conflict. However, the design also necessitates specialized techniques to extract all the information and to address problems with dependence between observations. We will extend the ‘calendar time Cox regression model’ proposed in Raknerud & Hegre (1997; also see Hegre et al., 2001 and Hegre & Raleigh, 2006) for this purpose. In Cox regression, the dependent variable is the transition between ‘states’ – e.g. the transition from peace to conflict. We will use the standard Cox regression model, but let t be *calendar time*, not the duration of the state of peace, and let the unit of analysis be locations within countries. The advantages are that this model allows handling observations that are recorded on the finest possible time-scale to keep track of the succession of events – since the baseline hazard is non-parametric, it is not very restrictive. Adding variables such as ‘time since previous event in a proximate location’ allows modelling explicitly how a conflict expands from the initial battle to each subsequent event, and thereby the dependence between the different observations.

Multilevel models are appropriate when information refers to different levels of analysis (e.g. the country and the territorial unit). Attributes for all levels can be included in the analysis to understand how first level characteristics affect second level observations and vice versa. This type of modelling is particularly well suited to conflict occurrence, as events can be observed as both separate entities, or clustered within countries and, in turn, countries within regions.

We will also employ the richness of the data to split-sample analysis: We will estimate models using data for one part of the sample, and use these estimates to generate predictions for another part. Comparing observations with out-of-sample predictions is an efficient technique to evaluate the quality of models.

Compilation of variables ready to be used in spatial statistical analysis requires a substantial amount of resources. A number of GIS operations are needed in order to generate one single variable. Typical GIS operation involves projection of the data into a Cartesian coordinate system, aggregation of the data to the desired resolution, distance or area calculation, and conversion to a suitable output format. To automate operations that must be repeated for similar datasets and for different points in time we will invest in writing batch processing scripts and programs

Cartographic representation

Rød has developed a program to study the locations of armed conflicts visually (ViewConflict). We will use ViewConflict and other GIS applications to present the spatio-temporal extension of conflict and conflict-promoting factors. We will also use GIS maps to highlight significant findings and make predictions for future scenarios.

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- Hegre, Håvard & Clionadh Raleigh, 2006. '[Population Size, Concentration, and Civil War: A Geographically Disaggregated Analysis](#)', presented at the Annual Meeting of International Studies Association, San Diego, March 22–25..
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Curriculum Vitae, Scott Geoffrey Gates

Education

1983 MA (Political Science), Michigan
 1985 MS (Applied Economics), Minnesota
 1989 PhD (Political Science), Michigan

Employment

2002- Director, CSCW, PRIO
 2002- Professor Political Science, NTNU
 1996- Associate Professor Political Science, Michigan State University

Selected Professional Activities

Associate Editor, *Journal of Peace Research* (1998–); Acting Editor (Autumn 1999)
 Board of Editors, *Journal of Public Administration Research and Theory* (1998 -)
 Board of Editors, *International Studies Quarterly* (2005 --
 Dissertation Advisor for 15 doctoral students since 1995

Articles *inter alia*

American Journal of Political Science, American Political Science Review, International Interactions, Journal of Conflict Resolution, Journal of Criminal Justice, Journal of Environmental Economics and Management, Journal of Peace Research, Journal of Theoretical Politics, Policy Studies Review, Review of Development Economics

Relevant Publications

- “Institutional Inconsistency and Political Instability: The Duration of Polities,” with Håvard Hegre, Mark P. Jones, & Håvard Strand, 2006. *American Journal of Political Science* 50(4), in press.
- “Spatial-horizontal Inequality and the Maoist Insurgency in Nepal,” co-authored with S. Mansoob Murshed. *Review of Development Economics* 9(1): 121–134 (2005).
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- “Recruitment and Allegiance: The Microfoundations of Rebellion.” *Journal of Conflict Resolution* 46(1): 111-130, (2002).
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- “Evolution in Democracy-War Dynamics,” co-authored with Sara McLaughlin and Håvard Hegre. *Journal of Conflict Resolution*. 43(6): 771-792 (1999).
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- “When Supervision Fails to Induce Compliance,” co-authored with John Brehm. *Journal of Theoretical Politics*. 6(3): 323-43 (August 1994).

Curriculum Vitae,**Håvard Hegre****Education**

1995 Cand. Mag., Oslo
 1999 Cand. Polit. (Pol. Sc.), Oslo
 2004 Dr. Philos (Political Science), Oslo

Employment

1999-2000; 2003-2004– Researcher, PRIO CSCW, Research Professor from 2006
 2004– Assistant Professor, Dept. of Political Science, University of Oslo
 2001-2003 Economist, DECRG, The World Bank
 2000-2001; 2003-2004 Research Fellow, Political Science, University of Oslo

Selected Professional Activities

Associate Editor, *Journal of Peace Research* (2003-)
 Member of Editorial Committee, *Journal of Peace Research* (1999-)

Articles in *inter alia*

American Political Science Review, American Journal of Political Science, Defence and Peace Economics, Journal of Conflict Resolution, Journal of Peace Research, Political Geography

Relevant Publications

- “Institutional Inconsistency and Political Instability: The Duration of Polities,” with Scott Gates, Mark P. Jones, & Håvard Strand, 2006. *American Journal of Political Science* 50(4), in press.
- “Sensitivity Analysis of Empirical Results on Civil War Onset”, co-authored with Nicholas Sambanis. *Journal of Conflict Resolution*, 50(4), (2006), in press.
- “[Population Size, Concentration, and Civil War: A Geographically Disaggregated Analysis](#)”, co-authored with Clionadh Raleigh. Paper presented at the Annual Meeting of International Studies Association, San Diego, March 22–25 (2006).
- “Introducing ACLED: An Armed Conflict Location and Event Dataset,” co-authored with Clionadh Raleigh. Paper presented to the conference on ‘Disaggregating the Study of Civil War and Transnational Violence’, University of California Institute of Global Conflict and Cooperation, San Diego, CA, 7–8 March (2005).
- “Geographic Opportunity and Neomalthusian Willingness: Boundaries, Shared Rivers, and Conflict,” co-authored with Kathryn Furlong and Nils Petter Gleditsch. *International Interactions* (2005).
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- “Toward A Democratic Civil Peace? Democracy, Political Change, and Civil War 1816–1992,” co-authored with Tanja Ellingsen, Scott Gates & Nils Petter Gleditsch. *American Political Science Review* 95(1): 16–33, March (2001).

Curriculum Vitae,**Jan Ketil Rød****Education**

1991 Chartered engineer, NTNU
 2002 Dr. polit, NTNU

Employment

2004- Associated professor, Geography, NTNU
 2001-2004 Associated professor, Geomatics, NTNU
 1997-2001 Ph.D. student, Geography, NTNU
 1992-1997 Lecturer and engineer, Geography, NTNU

Relevant Publications

- “Local Determinants of African Civil Wars, 1970–2001,” co-authored with Halvard Buhaug. *Political Geography*, 25(3): 315-335 (2006).
- “Conflict Diamonds: A New Dataset,” co-authored with Elizabeth Gilmore, Nils Petter Gleditsch, and Päivi Lujala. *Conflict Management and Peace Science*, 22 (3): 257-272.
- “International Centre for Geohazards (ICG): Assessment, prevention and mitigation of geohazards,” co-authored with Solheim, A.; Rajinder, B.; De Blasio, F.V.; Blikra, L.H.; Boyle, S.; Braathen, A.; Dehls, J.; Elverhøi, A.; Etzelmüller, B.; Glimstad, S.; Harbitz, C.B.; Heyerdahl, H.; Iwe, H.; Karlsrud, K.; Lacasse, S.; Lecomte, I.; Lindholm, C.; Longva, O.; Løvholt, F.; Nadim, F.; Nordal, S.; Romstad, B.; and Strout, J.. *Norsk Geologisk Tidsskrift / Norwegian Journal of Geology*; 85 (1&2): 45-62 (2005).
- “Cartographic signs and arbitrariness,” *Cartographica*. 39 (4): 27-36 (2004).
- “How the monosemic graphics go polysemic,” *Cartographic Perspectives*. 38: 7-18 (2001)
- “De nauwkeurigheid van geclassificeerde kaarten,” *Kartografisch Tijdschrift*. 26 (4): 47 – 51 (2000).
- “An agenda for democratising cartographic visualisation,” co-authored with F.J. Ormeling and C.P.J.M Van Elzakker. *Norwegian Journal of Geography*. 55 (1): 38 – 41 (2000).
- “Vurdering av funksjonalitet ved fremstilling av koropletkart i Excel,” *Kart og Plan*. 92 (1): 36 – 42 (1999).
- “Le troisième choix... *Bulletin du Comité Français de Cartographie*,” 156: 98 – 102, (1998).

Curriculum Vitae,

Halvard Buhaug

Education

2002 – 2005 PhD (Political Science) Norwegian University of Science & Technology

1994 – 2001 Cand.Polit (Political Science) Norwegian University of Science & Technology

Employment

2006 – Senior Researcher, Centre for the Study of Civil War, PRIO

2002 – 2005 Research Fellow/PhD Student, Norwegian University of Science & Technology

2001 Research Fellow, Norwegian University of Science & Technology

Awards

Royal Norwegian Society of Sciences and Letters (Det Kongelige Norske Vitenskabers Selskab) 2005 award for excellent research by young scholars in human sciences for his work on geographical aspects of civil war

Relevant Publications

“Local Determinants of African Civil Wars, 1970–2001”, co-authored with Jan K. Rød. *Political Geography* 25(3): 315–335, (2006).

“The Death of Distance? The Globalization of Armed Conflict”, co-authored with Nils Petter Gleditsch. *Territoriality and Conflict in an Era of Globalization*, edited by Miles Kahler & Barbara F. Walter. Cambridge: Cambridge University Press (187–216) (2006).

“Dangerous Dyads Revisited: Democracies May Not Be That Peaceful After All”, *Conflict Management and Peace Science* 22(2): 95–111, (2005).

The Geography of Armed Civil Conflict. PhD dissertation. Trondheim: Department of Sociology and Political Science, Norwegian University of Science and Technology. (2005) [ISBN 82–471–7273–9].

“Accounting for Scale: Measuring Geography in Quantitative Studies of Civil War”, co-authored with Päivi Lujala, *Political Geography* 24(4): 399–418, (2005).

“The Geography of Civil War”, co-authored with Scott Gates, *Journal of Peace Research* 39(4): 417–433, (2002).

SECTION TWO: INDIVIDUAL PROJECTS			
INDIVIDUAL PROJECT C		Country:	<i>United Kingdom</i>
		EUROCORES Funding Agency:	<i>ESRC</i>
2.1 Principal Investigator	<i>Title</i> Dr.	<i>FAMILY NAME</i> Gleditsch	<i>First Name(s)</i> Kristian Skrede
Gender:	<i>M</i>	Date of Birth:	<i>09/10/1971</i>
2.1.1 Position held:	Reader in International Relations		
2.1.2 Institution:	Department of Government		
2.1.3 Dept/ Faculty:	University of Essex		
2.1.4 Postal address:	<i>Building/PO Box; Street; Town; Postcode; Country</i> Wivenhoe Park, Essex, CO4 3SQ		
2.1.5 Email address:	(1) <i>ksg@essex.ac.uk</i>	(2)	
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2.2 Co-applicant 1			
	<i>Title</i> Dr.	<i>FAMILY NAME</i> Dorussen	<i>First Name(s)</i> Han (Hendrikus P. R. J.)
Gender:	<i>M</i>	Date of Birth:	<i>27/07/1962</i>
2.2.1 Position held:	Senior Lecturer		
2.2.2 Institution:	Department of Government		
2.2.3 Dept/Faculty:	University of Essex		
2.3 Co-applicant 2			
	<i>Title</i>	<i>FAMILY NAME</i>	<i>First Name(s)</i>
Gender:	<i>M F</i>	Date of Birth:	<i>dd/mm/yyyy</i>
2.3.1 Position held:			
2.3.2 Institution:			
2.3.3 Dept/Faculty:			
2.4 Co-applicant 3			
	<i>Title</i>	<i>FAMILY NAME</i>	<i>First Name(s)</i>
Gender:	<i>M F</i>	Date of Birth:	<i>dd/mm/yyyy</i>
2.4.1 Position held:			
2.4.2 Institution:			
2.4.3 Dept/Faculty:			

Description of the Individual Project C: Civil War in Transnational Perspective

2.6.1 Originality; potential contribution to knowledge

Existing research on civil war tends to treat civil wars non-strategically and as purely domestic phenomena. Both agency, or “who” fights in civil wars, as well as their motivation, or “why” they fight, have been downplayed in most comparative research, which has focused on uncovering country characteristics believed to make violence more likely, such as if a country has a “weak” government or terrain that facilitates insurgencies. Researchers have implicitly assumed that since civil wars take place within societies, the key causes of conflict must also be found within the boundaries of formally independent nation states, and disregarded the role of transnational linkages and processes.

Non-strategic arguments about how conflict becomes more likely under particular circumstances are problematic, since they disregard how these features influence the incentives and behaviour of actors. For example, stronger rebels do not necessarily make violence less likely, as they also increase the incentives of governments to accommodate to their political demands. Treating states as “closed” polities is also problematic, and the transnational character of many contemporary conflicts highlights how third parties and resources outside the state where conflict occurs can influence interactions between antagonists. Groups that seem “weak” based on their resources within a country may be “strong” if they can draw upon foreign constituents or resort to safe havens in third states where the government cannot effectively retaliate against them without violating their neighbours' sovereignty.

Project C will approach civil war as the outcome of interactions between governments and peripheral groups when the parties are unable or unwilling to find non-violent settlements, and consider how domestic and international factors influence one another. We will consider violent conflict from a bargaining perspective to clarify when interactions are more likely to result in violence, and assess how transnational linkages can influence interactions among conflict antagonists. Rather than relying on crude proxies of dyadic relationships at the country level, we will develop new actor-specific data on conflict and actor characteristics to test dyadic propositions directly.

Project C will examine third parties' influences on interactions, focusing on transnational linkages such as support from neighbouring governments or peripheral groups, as well as the influence of conflict externalities and spill-over effects. Whereas existing studies of interventions in civil war commonly assume that external parties primarily seek to promote peace as an end in itself, we will consider a more varied set of motives for intervention, acknowledging that interveners often are biased and have strong preferences about the nature of settlements.

Finally, project C will contribute to civil war research by developing applications of spatial statistics to model dependence among actors and exploring how variation in networks/actor linkages can contribute to prospects for conflict and peace.

2.6.2 Research design and methods

Task C1: Modelling dyadic interactions. We will start by formal analysis of conflict as dyadic bargaining over some incompatibility, where violence results when parties fail to reach agreement. Standard bargaining concepts (e.g., Nash or Rubinstein) suggest that parties in a

“perfect” world will divide any available surplus (in this case, possible room for agreement over incompatibility), in proportion to their relative power and patience. Existing work on international conflict has identified how factors such as information or commitment problems can prevent agreement and give rise to violence. Although civil wars in practice may differ from conflicts with other sovereign states, these differences can be represented in terms of the bargaining situation and interaction. We will explore implications for the risk of civil war by tinkering with features and assumptions of the standard framework. Thematically, we will focus on modelling choice among alternative strategies in bargaining (i.e., violent vs. non-violent protest; repression vs. accommodation), how variation in the relative costs and benefits associated with alternatives influence the risk of violence, as well as “two-level” bargaining situations, where executives or leaders/elites on each side must maintain support for proposals or settlements among their own constituents in negotiations with opponents. We will use the model to generate propositions on interaction sequences and conflict. We will then test implications for conflict duration using new dyadic civil war data, and new data on peripheral groups will allow us to test propositions on conflict onset by sampling on groups with the potential to rebel.

Task C2: Analyzing the role of transnational third party linkages. This task will consider how third parties and linkages to actors outside the country where conflict occurs influence interaction among antagonists. We assume that identity or ideologically biased affinity (or antipathies) toward the actors will influence the likelihood of support from other states or peripheral groups in other states. We will develop propositions on the conditions under which third parties can escalate violence among conflict antagonists (or decrease tension), and how uncertainty over third party behaviour and motives shape the antagonists’ incentives for violent vs. non-violent strategies. Since individual dyadic interactions in civil war are not independent of other interactions, methods that assume independent observation are inappropriate. We will use spatial statistics to estimate dependence among interactions empirically, and explore the implications for conflict and peace.

Task C 3. Modelling international intervention and peacekeeping. Although many argue that international interventions can contain violent civil conflict, in practice, interventions have been associated with more persistent civil wars (see Doyle and Sambanis 2000; Regan 2000). Whereas existing research has tended to assume that intervening third parties seek to promote peaceful settlements, they often care not only about fostering peace, but also have strong preferences over the nature of settlements. We will consider a more varied set of motivations for intervention and use our framework to spell out when interventions can help promote settlements and when they are likely to lead to escalating violence.

2.6.3 Competence and expertise

The project will be headed by Kristian Skrede Gleditsch and Han Dorussen. Gleditsch has worked extensively on conflict within and between societies, in particular on the role of institutions and spatial characteristics (Cunningham, Gleditsch, and Salehyan 2006). He has pioneered applications of spatial statistics to social and political processes (Gleditsch 2002; Ward and Gleditsch 2002), and is currently writing a textbook for a social science audience. Dorussen has an extensive background in the formal analysis of conflict and cooperation, and has recently extended formal models of economic sanctions to determine when sanctions against civil war antagonists are likely and when they can be expected to be effective (2005).

The project will also work with affiliate researchers in the Departments of Government and Economics at the University of Essex. In Economics, Muthoo (2004) is the author of a

leading textbook on bargaining theory with many conflict examples, and has worked extensively on the analysis of political institutions, most recently on agenda-setting power and the stickiness of inefficient institutions. Landman has written extensively on human rights and social movements (e.g., 2005; 2006; 1997), and has also worked on integrating quantitative and qualitative methodologies in cross-national comparative research (2000). Ward is an expert on social choice theory and international relations, especially conflict and cooperation over environmental issues (e.g., 1993, 2001; 2004), and also has an interest in applications of network analysis to multi-party conflict.

2.6.4 Contribution to the collaboration

At the theoretical level, Project C contributes to the collaborative project by providing a theoretical framework for analyzing conflict and peace through interaction sequences between a centre and a peripheral group and the possible influences of third parties and transnational linkages (Q4). Task C1 also contributes to the study of mobilization in the periphery (Q3) and repression (Q2), complimenting projects A and B. Our data and empirical results will help other projects, both for analysis as well as input for calibrating the computational modelling efforts in Tasks A1 and A2.

2.6.5 Justification for funding requested (explain why items requested are necessary for the research)

The research assistants will work on data management and analysis. Funding and the opportunity to participate in the project will help in recruiting talented PhD students that otherwise might pursue doctoral studies in the USA. The post-doctoral researcher will contribute to the analysis and writing research papers, and assist the principal investigators in some administrative duties. We plan to host a 2008 project meeting in Colchester, and seek funds to cover room and board for collaborators from other nodes and travel costs for external participants. Since international conferences are essential for dissemination of the project we also include travel costs.

2.6.6 Planned outputs (publications and other dissemination activities)

In addition to the activities specified in section 1.10.6, we plan to disseminate our findings to policy communities, both governmental and organizations working in the conflict area, through a prior link with the International Crisis Group. In addition, we will make our data on attributes of actors in civil wars, external linkages, and migration flow available through the project's web interface and the UK data archive.

2.6.7 Annexes (including no more than one single-sided A4 sheet for references and one double-sided A4 sheet for technical details, if appropriate)

References:

- Cunningham, David, Kristian Skrede Gleditsch, and Idean Salehyan. 2006. Dyadic Analyses of Civil War Duration. Paper Presented at the 47th Annual Meeting of the International Studies Association, 22-25 March, San Diego, CA, USA.
- Dorussen, Han. 2005. Economic Coercion in Civil Conflict. Paper presented at the Meeting of the Working Group on "Governance and Peace", Centre for the Study of Civil War (CSCW), Oslo, 14 – 15 May.
- Doyle, Michael W., and Nicholas Sambanis. 2000. "International Peacebuilding: A Theoretical and Quantitative Analysis". *American Political Science Review* 94 (4):779-801.
- Gleditsch, Kristian Skrede. 2002. *All International Politics is Local: The Diffusion of Conflict, Integration, and Democratization*. Ann Arbor, MI: University of Michigan Press.
- Landman, Todd. 2000. *Issues and Methods in Comparative Politics: An Introduction*. London: Routledge.
- Landman, Todd. 2005. *Protecting Human Rights: A Comparative Study*. Washington: DC: Georgetown University Press.
- Landman, Todd. 2006. *Studying Human Rights*. London: Routledge.
- Landman, Todd, and Joe Foweraker. 1997. *Citizenship Rights and Social Movements: A Comparative and Statistical Analysis*. Oxford: Oxford University Press.
- Muthoo, Abhinay. 2004. *Bargaining Theory with Applications*. Cambridge: Cambridge University Press.
- Pretty, Jules, and Hugh Ward. 2001. "Social Capital and the Environment". *World Development* 29 (2):209-227.
- Regan, Patrick M. 2000. *Civil Wars and Foreign Powers: Interventions and Intrastate Conflict*. Ann Arbor, MI: University of Michigan Press.
- Ward, Hugh. 1993. "Game Theory and the Politics of the Global Commons". *Journal of Conflict Resolution* 37 (2):203-235.
- Ward, Hugh, Frank Grundig, and Ethan Zorick. 2004. Formal Theory and Regime Effectiveness: Rational Players, Irrational Regimes. In *Regime Consequences: Methodological Challenges and Research Strategies*, edited by A. Underdal and O. Young. Dordrecht: Kluwer.
- Ward, Michael D., and Kristian Skrede Gleditsch. 2002. "Location, Location, Location: An MCMC Approach to Modelling the Spatial Context of War and Peace". *Political Analysis* 10:244-260.

Curriculum Vitae, Kristian Skrede Gleditsch

Education

- 1999 PhD in Political Science, University of Colorado, USA
 1993 *Cand.Mag.* degree, University of Oslo, Norway

Employment

- 2005 - Reader. Department of Government, University of Essex, UK
 2001 - 2006 Assistant Professor in Political Science, University of California, San Diego, USA (awarded tenure 2005, on leave 2005-6)
 2004 - 2005 Research Director for International Relations, Institute for Global Conflict and Cooperation, University of California, San Diego, USA
 1999 - 2001 Lecturer in Social Science Methodology, University of Glasgow, UK

Major Grants and Awards

- 2004- 07. National Science Foundation, "The Dynamics of Civil War Outcomes: Bosnia and the North Caucasus", SES-0433927, with John O'Loughlin, Jeremy Mennis, Gerard Toal, and Michael Ward.
 2004-05. National Science Foundation, "International Dimensions of Civil War", SES-0351670, with Barbara Walter.
 2002. Warren E. Miller Prize for the best article published in *Political Analysis* Vol. 10, 2002.
 2001. Rudolf Wildenmann prize for best paper at the 2000 ECPR joint sessions of workshops
 2000. Helen Dwight Reid award for best dissertation in international relations, APSA.
 1999-2000. Doctoral Fellowship, RCN.

Selected Professional Activities

- Editorial board member *American Journal of Political Science* (2006-present), *Cooperation and Conflict* (2001-present); *International Studies Quarterly* (2004-present).
 Convenor, European Consortium of Political Research (ECPR) Standing Group on Political Geography, 2000-present.

Most Relevant and Recent Publications

- ND. "Civil War and its Spread" in J. Bercovitch, V. Kremenyuk, I.W. Zartman, eds., *Handbook on Conflict Resolution*. London: Sage.
 2007. "Diffusion and the International Context of Democratization," *International Organization* (With M. Ward).
 2006. "Identity and Conflict: Ties that Bind and Differences that Divide," *European Journal of International Relations* 12(1): 53–87 (with E.A. Gartzke).
 2006 "Refugee Flows and the Spread of Civil War," *International Organization* 60:335–366 (with I. Salehyan).
 2004. "Regime Type and Commitment: Why Democracies are Actually Less Reliable Allies," *American Journal of Political Science* 48:775-795 (with E.A. Gartzke).
 2004. "Nosy Neighbours: Third Party Actors in Central American Civil Conflicts," *Journal of Conflict Resolution* 48:379-402 (with K.C. Beardsley).
 2004. "Conquest and Regime Change: An Evolutionary Model of the Spread of Democracy and Peace," *International Studies Quarterly* 48:603-629 (with L-E. Cederman).
 2002. "Location, Location, Location: An MCMC Approach to Modelling the Spatial Context of War and Peace," *Political Analysis* 10:244-60 (with M.D. Ward).
 2002. *All International Politics is Local: The Diffusion of Conflict, Integration, and Democratization*. Ann Arbor, MI: University of Michigan Press.
 2001. "Measuring Space: A Minimum Distance Database." *Journal of Peace Research* 38:749–68 (with M.D. Ward).
 2000. "Peace and War in Time and Space: The Role of Democratization," *International Studies Quarterly* 43:1-29 (with M.D. Ward).
 1998. "Democratizing for Peace," *American Political Science Review* 92:51-61 (with M.D. Ward).

Curriculum Vitae,

Han Dorussen

Education

- 1987 BA/MA (with Honors) Political Science (Research Methods),
University of Nijmegen (Netherlands)
- 1996 Ph.D. Government (International Relations / Formal Theory) University of Texas,
Austin (USA)

Employment

- 2001-2004 Senior Lecturer, University of Essex, (Lecturer), 2004 - (Senior Lecturer).
- 2000 Guest Professor, University of Konstanz (Germany).
- 1996-2001 Assistant Professor, NTNU-Trondheim (Norway).
- 1993-1994, 1996 Assistant Instructor, University of Texas (USA).
- 1995-1996 Information Coordinator, National Issues Convention, Austin (USA).
- 1989-1996 Research and Teaching Assistant, University of Texas (USA).
- 1987-1989 Instructor, University of Nijmegen (Netherlands).

Professional Activities

Associate Editor Journal of Peace Research

Research Interests

conflict and trade, economic sanctions and incentives

Recent and Relevant Publications

- “Heterogeneous Trade Interests and Conflict: It Matters What You Trade With Whom,”
Journal of Conflict Resolution, 50(1), 2006, 87-107.
- “Colonial Wars and the Democratic Peace” (with Hilde Ravlo and Nils-Petter Gleditsch),
Journal of Conflict Resolution, 47 (4), 2003, 520-548.
- “The Use of Economic Statecraft in Civil Conflict,” presented at the ECPR Joint Sessions,
Edinburgh, 28 March – 2 April, 2003.
- “Extending the Multi-Country Model of Trade and Conflict” (with Håvard Hegre), in: G.
Schneider, K. Barbieri, and N.P. Gleditsch (eds), *Globalization and Armed Conflict*,
Rowman & Littlefield, 2003, 77–102.
- “Trade and Conflict in Multi-Country Models. A Rejoinder,” *Journal of Peace Research*, 39
(1), 2002, 115-118.
- “Trade Coalitions and the Balance of Power” in: U. Druwe, V. Kunz, and T. Plümper (eds.),
Jahrbuch für Handlungs- und Entscheidungstheorie. Folge 1/2001. Opladen: Leske +
Budrich, 153-180.
- “Ending Sanctions: Audience Costs and Rent-Seeking as Commitment Strategies” (with
Jongryn Mo), *Journal of Conflict Resolution* 45 (4), 2001, 395-426.
- “Mixing Carrots with Sticks. Evaluating the Effectiveness of Positive Incentives” *Journal of
Peace Research* 38 (2), 2001, 251-262.
- “Balance of Power Revisited: A Multi-Country Model of Trade and Conflict,” *Journal of
Peace Research* 36 (4), 1999, 443-462.

Grants

- Professional Development Grant*, University of Essex, 2004
- Research Grant*, Research Director, 5th Framework Programme of the European
Commission, 2003-2005
- Grant for Organization of Special Conference on Institutions and Economic Voting*, Norsk
Forskningsråd, 2000
- Research Grant*, NTNU-Trondheim, 1997, 1998; Norsk Forskningsråd, 1998-1999.