Peacekeeping Event Data: Determining the Place and Space of Peacekeeping[1]

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Introduction

Recent literature on peacekeeping recognizes the importance of local conditions as determinants of the 'space for peace' and, at the same time, treats 'bottom-up' peacekeeping as a central criterion for its effectiveness.[2] Accordingly, we have collected event data to analyze the impact of peacekeeping at a highly disaggregate, or local/subnational, level. Peacekeeping events are defined as data points where peacekeepers are either actors or targets of an action at a specific location and time point. Ideally time and place are recorded at the highest precision – indicating exact longitude and latitude as well as exact time of day – but often such precision remains elusive. Regardless, peacekeeping event data help to identify *where* peacekeepers are deployed, *what* they do, *with whom* they interact, as well as the *quality* of the interaction.

We have engaged in four efforts to identify peacekeeping events: Peacekeeping Location Event Data (PKOLED),[3] a pilot study to (semi)automate such coding in Automated Peacekeeping Events, PKO Deployment data (PKODEP)[4] and Peacekeeping Governance data (PKOGOV).[5] The data have

[1] We gratefully acknowledge financial support of the Folke Bernadotte Academy, Sweden, for the various collections of peacekeeping events.

[2] Autesserre, 'Going Micro'.

[3] Dorussen and Ruggeri, 'Introducing PKOLED'

[4] Ruggeri, Dorussen and Gizelis, 'On the Frontline Every Day?'

provided a better understanding of the local dimensions of peacekeeping, and helped to bridge the divide between quantitative comparative research and ethnographic case studies. At the same time, the coding and management of event data pose some clear challenges. Also conceptually, event data necessitate a careful assessment of the salient spatial features of peacekeeping.

Hence, we differentiate between the *place* and *space* of peacekeeping next. Secondly we briefly visualize geo-referenced peacekeeping events to highlight key features. Thirdly we summarize the key findings of previous research, and conclude by discussing weaknesses in existing data and suggesting avenues for future research.

The *Place* and *Space* of Peacekeeping

To comprehend social phenomena requires "understanding the arrangements of particular social actors in particular social times and places … Social facts are *located*".[6] Accordingly local peacekeeping recognizes the importance of activities throughout the area of operations and thus corrects for a biased focus on a country's capital. Local peacekeeping emphasizes interactions between peacekeepers and locals; for example, when peacekeepers mediate in local disputes. At the same time, local peacekeeping is not necessarily 'bottom-up' peacekeeping; for example, when the implementation of a centrally agreed peace-agreement requires peacekeepers to monitor military activities at a particular locality. Recognizing these distinctions, it is useful to separate the concept of locality as *place* from social *space* and to link each to unique conflict

[5] Dorussen and Gizelis, 'Into the Lion's Den'

[6] Abbott, 'Of Time and Space', 1152.

and conflict resolution mechanisms, as well as to distinct roles for peacekeepers. The basic idea is not particularly new and is well-known in geography. However, the implications for our understanding of peacekeeping and what specific peacekeeping event data are most relevant are not generally appreciated. Spatial thinking is "about where things are or where they happen, and it is especially about where they are in relation to others".[7]

The reasons for why a conflict erupts at a particular place are not necessarily local, or confined to that space. Localities (*places*) are more susceptible to conflict if they are either strategically valuable or contested.[8] However, local grievances and agendas also create *spaces* for conflict.[9] Support of civilians for either rebels or government has often less to do with (national) policy or ideology, but instead is motivated by personal grievances and the prospect of personal gains. If so, civil war becomes a pretext to settle what are basically local disputes.

Peacekeepers support peace agreements via enforcement, credible commitment, deterrence, and re-assurance.[10] The first two mechanisms emphasize features of place while the latter two focus on space.

By means of monitoring and reporting on actions 'on the ground', peacekeepers may enable the government and rebels to credibly commit to a peace agreement. The presence of peacekeepers in specific localities matters because it commits leaders to act locally in line with centrally agreed principles.

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[7] Logan, 'Making a Place for Space', 508.

[8] Cederman, Gleditsch and Buhaug, *Inequality, Grievances, and Civil War*.

[9] Kalyvas , *The Logic of Violence*.

[10] Fortna, *Does Peacekeeping Work?*

Further, peace agreements can pose moral hazard problems in that they create 'new' opportunities for conflict: Disarmament, demobilization and reintegration (DDR) and security sector reform (SSR) processes are likely to impact on the military capabilities of government and rebel forces. Peacekeeping event data can help to identify where peacekeepers are deployed to monitor the separation of troops or their demobilization. Peacekeepers can also substitute for lack of effective control by elites. Peacekeepers fill the power vacuum that prevails in the aftermath of armed conflict when governments often lack capacity to effectively control the whole country and to deal decisively with actors that have remained outside the peace process.

At the same time peacekeeping needs to addresses local conflicts: peacekeepers need to recognize tensions, provide early warning, and increase awareness that conflicts often persist in parts of the country. Here, peacekeepers are called upon to engage with local conflict dynamics, or the local as social *space.* Providing accurate information again plays an important role in dealing with local conflict, but peacekeepers also regularly mediate in local conflicts using a broad set of mediation techniques, including gathering information, meeting separately with disputant and, if necessary, asking third-parties to assist. Finally, peacekeepers may deter (or prevent) the onset of local conflict when their presence and actions discourage parties to use force. UN Peace Operations have shifted from observing ceasefires and traditional peacekeeping (which typically requires strict neutrality) to active engagement with the fighting parties. Peacekeepers can deter the resumption of fighting if patrolling demonstrates effective control. During the conflict, elites tend to encourage, mobilize and arm grassroots groups that often fight alongside 'regular' troops.

Such grassroots organizations can retain a strong local identity and powerbase. Antagonisms may persist following the end of civil war with local social, political and economic agendas leading to distinct patterns of violence. Robust peacekeeping can deter the use of violence by spoiler or renegade factions

To appreciate the value and limitations of peacekeeping along these various dimensions requires highly detailed data. The promise of peacekeeping event data is to identify not only the presence (and size) of peacekeeping deployment locally, but also with whom peacekeepers interact and in what capacity.

Disaggregating Peacekeeping

Most of the quantitative literature on peacekeeping that developed in the 2000s[11] used country (or conflict) as the main analytical unit. As we have just argued, theories of peacekeeping imply a different analytical granularity, more disaggregated in terms of actors, strategic timing and geographical operations. More recently, the quantitative study of peacekeeping has moved to a more disaggregated temporal analysis using monthly dynamics and mission size[12] and considering the composition of particular missions.[13]

Our collections of event data contribute to a further disaggregation of UN peacekeeping data to the subnational level and with temporal variation. The

[11] See Doyle and Sambanis, *Making War and Building Peace*; Fortna, *Does Peacekeeping Work?*

[12] See Hultman, Kathman and Shannon, 'United Nations Peacekeeping'; Hultman, Kathman and Shannon, 'Beyond Keeping Peace'.

[13] Bove and Ruggeri, 'Kinds of Blue'

event data mainly cover UN mission in Africa between 1989 and 2006.[14] As an illustration, Figure 1 provides a map of Angola using data from PKOLED and PKODEP. The red dots on the left-side map identify PKOLED events where UN peacekeepers were directly involved as actors or targets of cooperative or conflictual events. The hollow blue squares are events where the peacekeepers were observing an event.[15]

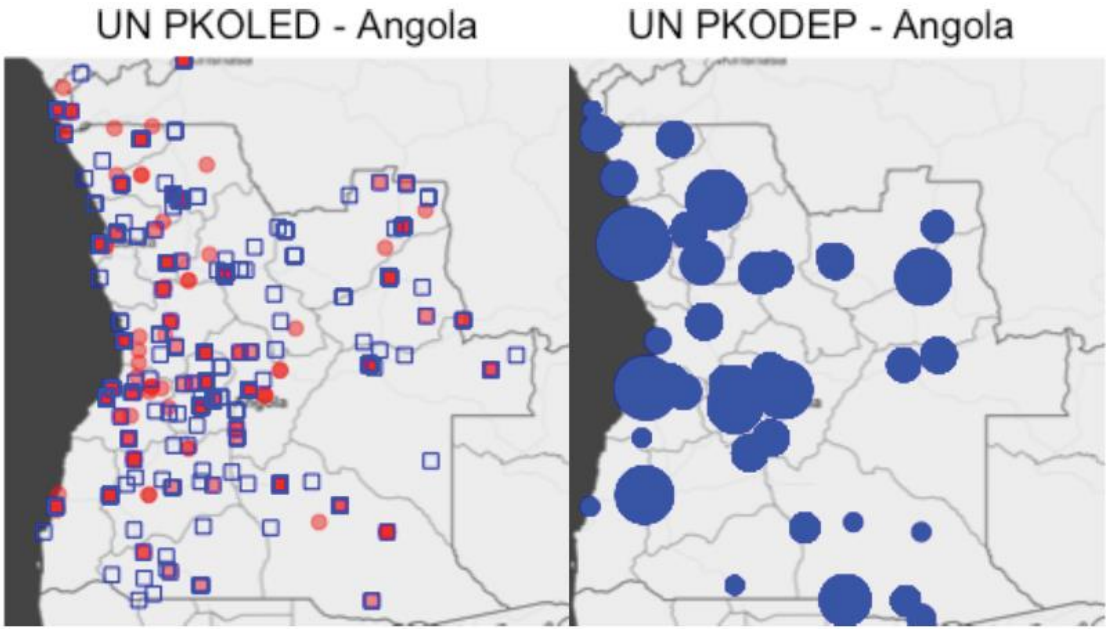


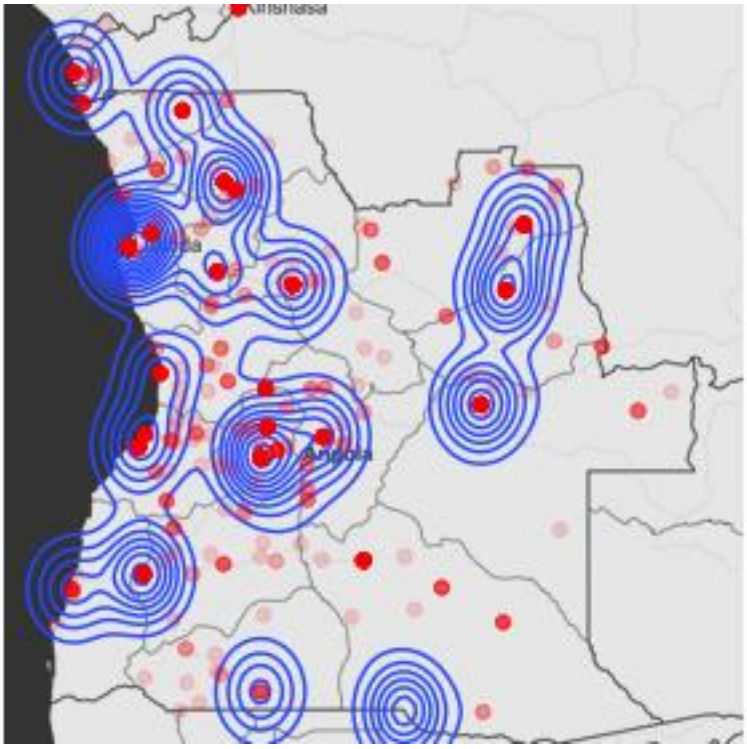
Figure 1: Peacekeeping events (PKOLED) and deployment (PKODEP) in Angola 1989-1999

PKODEP contains information about the deployment of UN peacekeepers subnationally for all UN missions in Africa, including information on the size of deployment and the variation over time. In Figure 1, the right-side map shows where peacekeepers were deployed. Here, the size of the circles is a function of their local deployment size.

[14] PKOLED covers all UN mission after 1989 until 2006.

[15]PKOLED includes further variables identifying different typologies of actions as well as coding precision in terms of temporal and geographical information.

Figure 2 combines information from both datasets. The blue lines are density function based on PKODEP and indicate the spatial reach of the peacekeeper deployment. The red dots are the PKOLED event, and the transparency of the dots is a function of the number of event at a specific location. As to be expected, peacekeeping events (PKOLED) overlap with the deployment of peacekeepers (PKODEP). However, and quite interestingly, there are also many instances where peacekeeping events are far form the areas of deployment. PKOLED and PKODEP thus appear to present different information about local peacekeeping.



Note: density probabilities of deployment (PKODEP) in blue and peacekeeping events (PKOLED) in red.

Figure 2: Peacekeeping Events (PKOLED) and Deployment (PKODEP) in Angola 1989-1999

Key Findings

Based on the various projects introduced above, our analyses of the peacekeeping event data provide a fairly coherent picture.

First of all, UN peacekeeping remains predominantly top-down. Peacekeepers engage more, and more cooperatively, with government (or central) authorities; in particular, if the UN rebuilds central administration.[16] Collaboration with rebel authorities is more problematic; particularly when the UN is seen as replacing central authority.

We have also found that relatively weak rebel groups (compared to central government) are more cooperative towards larger UN peacekeeping missions, possibly because they offer effective protection.[17] Here we were able to evaluate the role of power relations between incumbent and rebels vis-à-vis the UN peacekeepers creating data events with monthly variation and coding cooperative actions toward the peacekeepers.

Turning to the subnational deployment of peacekeepers, we find that peacekeepers are deployed to conflict areas within countries, but with a considerable time delay. They also tend to deploy near urban areas. These findings rely on geo-referenced information on UN deployment (PKODEP) in African UN missions in between 1989 and 2006.[18]

Finally, even controlling for selection bias in deployment and interaction, peacekeepers tend to control conflict locally, but we have found no evidence that they are able to prevent local conflict. Peacekeepers are 'effective' locally already

[16] Dorussen and Gizelis, 'Into the Lion's Den'

[17] Ruggeri, Gizelis, and Dorussen, 'Managing Mistrust"

[18] Ruggeri, Dorussen and Gizelis, 'On the Frontline Every Day?'

with modest deployment; making peacekeeping clearly distinct from counter-insurgency strategies.[19]

Discussion and Future Research

The different peacekeeping event data we have collected share a number of features and possible limitations. First of all, they focus on United Nations peacekeeping and rely predominantly on reports of the UN Secretary General. We recognize that regional organisations increasingly participate in peacekeeping, and the responsibility for peacekeeping is regularly shared between the UN and regional organisations, such as the EU, AU and OAS[20]. Peacekeeping events are now also more widely reported and access to local media has improved. Social media are potentially a further source of valuable information. On the balance, we are yet to be convinced that the 'noise-to-information' ratio justifies a coding of all these sources, but given the advances in (semi-)automated coding our original decisions seem overly restrictive.

Secondly, the various dataset all rely on hand-coding. The data are quite detailed in identifying actors and activities, but unfortunately much less so in identifying place and time. Inter-coder reliability, in particular, with regard to identifying unique events, has proven to be a serious concern.[21] More practically, updating and maintaining data has been challenging. Currently, the data tend to cover the period 1989 – 2006 with only the deployment data more updated. In

[19] Rugerri, Dorussen and Gizelis, 'Winning the Peace Locally'

[20] See in this issue van der Lijn and Smit. They highlight the problems associated with collection of non-UN PKO data.

[21] Ruggeri, Gizelis and Dorussen, 'Events Data'

our opinion, (semi-)automated coding of peacekeeping events is promising. We were able to develop dictionaries that result in a 70 – 80% accuracy in identifying events. Given the increasing interest in peacekeeping event data, this may well prove to be a fruitful avenue for future collaboration.

Thirdly, the peacekeeping event data are geocoded (although with varying precision) allowing them to match to data-grids (such as the PRIO-grid[22]). The obvious advantage is that it allows researchers to link peacekeeping data with other geo-referenced data on terrain, demographics, and conflict.

In our opinion and given the salience of debate between macro and micro dynamics of conflict resolution, as well as the need to distinguish between the space and place of local peacekeeping, more disaggregated data are not just useful but necessary. Peacekeeping event data help to identify the presence (and size) of peacekeeping deployment locally, but also with whom peacekeepers interact and in what capacity. The full potential of our data is yet to be explored (and, consequently, we do not yet fully grasp the limitations of our data in this respect either). However, PKOLED identifies whether peacekeepers interact with local, rebel and central authorities and whether peacekeepers are directly involved or rather as a third party. PKOLED further identifies a large number of events or activities that can be aggregated into meaningful categories[23] and PKODEP where peacekeepers are deployed, their size and who they are. Future challenges include how to semi-automate data collection in order to improve

[22] Tollefsen, Strand and Bugaug, 'PRIO-GRID'

[23] Based on the PKOLED codebook, we were able to identify 'verbs' to build dictionaries to recover the aggregate categories in automated text-coding with a reasonable (70-80%) precision.

data quality, provide data updates and extend these geo-referenced data event also to other peacekeeping mission from non-UN organizations.

References

Abbott, Andrew. 1997. "Of Time and Space: The Contemporary Relevance of the Chicago School." *Social Forces* 75 (4): 1149–82.

Autesserre, Séverine. 2014. "Going Micro: Emerging and Future Peacekeeping Research." *International Peacekeeping* 21 (4): 492–500.

Bove, Vincenzo, and Andrea Ruggeri. 2015. "Kinds of Blue: Diversity in UN Peacekeeping Missions and Civilian Protection." *British Journal of Political Science*, 1–20.

Buhaug, Halvard. 2006. "Relative Capability and Rebel Objective in Civil War." *Journal of Peace Research* 43 (6): 691–708.

Cederman, Lars-Erik, Kristian Skrede Gleditsch, and Halvard Buhaug. 2013. *Inequality, Grievances, and Civil War*. Cambridge University Press.

Dorussen, Han, and Theodora-Ismene Gizelis. 2013. "Into the Lion's Den Local Responses to UN Peacekeeping." *Journal of Peace Research* 50 (6): 691–706.

Dorussen, Han, and Andrea Ruggeri. 2007. "Introducing PKOLED: A Peacekeeping Operations Location and Event Dataset." In *Conference Disaggregating the Study of Civil War and Transnational Violence, University of Essex*.

Doyle, Michael W, and Nicholas Sambanis. 2006. *Making War and Building Peace: United Nations Peace Operations*. Princeton University Press.

Fortna, Virginia Page. 2008. *Does Peacekeeping Work?: Shaping Belligerents' Choices after Civil War*. Princeton University Press.

Hultman, Lisa, Jacob Kathman, and Megan Shannon. 2013. "United Nations Peacekeeping and Civilian Protection in Civil War." *American Journal of Political Science* 57 (4): 875–91.

———. 2014. "Beyond Keeping Peace: United Nations Effectiveness in the Midst of Fighting." *American Political Science Review* 108 (04): 737–53.

Kalyvas, Stathis,. 2006. *The Logic of Violence in Civil War*. Cambridge University Press.

Logan, John R. 2012. "Making a Place for Space: Spatial Thinking in Social Science." *Annual Review of Sociology* 38.

Ruggeri, Andrea, Theodora-Ismene Gizelis, and Han Dorussen. 2013. "Managing Mistrust An Analysis of Cooperation with UN Peacekeeping in Africa." *Journal of Conflict Resolution* 57 (3): 387–409.

Ruggeri, Andrea, Han Dorussen, and Theodora-Ismene Gizelis. 2016a. "On the Frontline Every Day? Subnational Deployment of United Nations Peacekeepers." *British Journal of Political Science*.

———. 2016b. "Winning the Peace Locally: UN Peacekeeping and Local Conflict." *International Organization*.

Ruggeri, Andrea, Theodora-Ismene Gizelis, and Han Dorussen. 2011. "Events Data as Bismarck's Sausages? Intercoder Reliability, Coders' Selection, and Data Quality." *International Interactions* 37 (3): 340–61.

Tollefsen, Andreas Forø, Håvard Strand, and Halvard Buhaug. 2012. "PRIO-GRID: A Unified Spatial Data Structure." *Journal of Peace Research* 49 (2): 363–74.