

# Milestone #6

Cian Stryker

3/17/2020

I will be replicating the paper “Ethnic Riots and Prosocial Behavior: Evidence from Kyrgyzstan” written by Anselm Hager, Krzysztof Krakowski, and Max Schaub.<sup>1</sup> Using survey data performed in Osh, Kyrgyzstan after the 2010 ethnic riots, this paper explores the question of whether exposure to ethnic riots has a negative effect on both in and out group member prosocial behavior. Previous literature on prosocial behavior following ethnic violence suggests, intuitively, that prosocial behavior towards the aggressor group is negatively affected.<sup>2</sup> This paper’s results, however, supports the work of other scholars who found that prosocial behavior for both in and out groups are negatively affected.<sup>3</sup>

The first step to understanding the data analysis performed in the following replication, is to become familiar with the event itself. The 2010 ethnic riots happened in Osh, Kyrgyzstan and were comprised of the ethnic Kyrgyz majority rioting against the ethnic Uzbek minority.<sup>4</sup> The second step is to understand the author’s data. They performed 1100 interviews with Uzbeks and Kyrgyz from Osh, Kyrgyzstan. View the graphic I have created below to see how the interview subjects differentiate between ethnicities, average ages, average incomes, gender, and number affected by riots.<sup>5</sup>

Table 1: Summar of Survey Data  
Separated between Uzbeks and Kyrgyz

	Uzbeks	Kyrgyz
Total	878	222
Average Age	41	37
Average Income	21,517	20,331
Percentage Men	59%	60%
Percentage Women	41%	40%
Number Affected	409	83
Number Unaffected	469	139

In the authors’ analyses they measure prosocial behavior by having subjects complete a prisoner’s dilemma (PD) scenario and dictator’s game (DG) hypothetical to measure prosocial behavior towards both the in-group and out-group. They also create a ‘Prosociality Index’ score, which is simply a combined score of the PD and DG scores. They use these responses, which are measured numerically, to first run a series of OLS linear regressions for only Uzbeks who were affected by the riots, which is referred to as the victimization

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<sup>1</sup>Hager, Krakowski, and Schaub 2019

<sup>2</sup>Bauer et al. 2016; Horowitz 2001

<sup>3</sup>Kijewski and Freitag 2018; Rohner, Thoenig, and Zilibotti 2013;

<sup>4</sup>Galdini 2014

<sup>5</sup>All analysis for this paper is available here: [https://github.com/CianStryker/Project\\_5\\_Milestone](https://github.com/CianStryker/Project_5_Milestone)

variable. They find that on average Uzbeks who were affected by the riots have lower prosocial behavior for both in and out-group members. They then run another series of regressions for affected Uzbeks, but include potential confounding variables such as wealth, state capacity of neighborhoods, community policing, accessibility, and voting record in the recent Kyrgyz election. They found, however, that only exposure to violence during the riots had consistently statistically significant effects on prosocial behavior.

The authors then want to explore an instrumental variable which was the rioter's access to armored vehicles (APCs) to break through Uzbek barricades. During the riot, APCs were captured from the Kyrgyz military barracks by rioters to then attack Uzbek enclaves. Areas of Osh where rioters did not have access to APCs saw little to no destruction. This suggests that access to APCs might act as an exogenic assignment mechanism that explains post-riot differences across subject responses. They believe that distance to APC locations capture the 'intent-to-treat' effect and then create a closeness instrument by inputting subjects' distance to APC locations. The authors run a series of new regressions where they substitute victimization for the closeness instrument and then include these regressions with their earlier, original regressions. They see both that their original results hold and that even with victimization replaced with the closeness instrument, there is still a noticeable negative effect on prosocial behavior. They follow this up with a randomization inference procedure, where they randomized potential APC locations, to see if the earlier closeness instrument effect could occur randomly. They find, however, that this is highly unlikely.

Overall the paper essentially finds that being affected by the riot causes a drop in prosocial behavior towards both the in-group and out-group. They then test the robustness of these results through potential confounding variables and an instrument variable. They find that their original findings hold throughout these robustness tests. At the end of the paper they explore why in-group prosocial behavior is negatively affected qualitatively and argue that disappointment and suspicion may explain the negatively affected in-group prosocial behavior.

### Replication Statement

The replicable and essential figures/tables for my paper are Figures 4, 5, 6, 8, and 9, as well as Table 1. The online Appendix is huge, but consists of extensive robustness testing and therefore I believe they are non-essential. The other figures in my paper are made either via GIS software or are simply maps of the city (Osh, Kyrgyzstan) in question. These I could just screen shot and insert into my own work if necessary. I can replicate Figures 4, 5, 8, and 9 from my paper. I can also replicate Table 1. I currently cannot replicate Figure 6 from my paper, because the matrix they created does not work with the code they have provided. I have no way to edit this matrix without damaging the paper's findings. I am working with Alice to find a workaround on Figure 6, but my extensions are focused on Figure 5 and Table 1, so this will not prevent me from moving forward with the project. I also want to replicate one appendix figure, A.17 for my extension section. I will include it within this milestone.

### Extension Plans

## Bibliography

- Bauer, Michal, Christopher Blattman, Julie Chytilova, Joseph Henrich, Edward Miguel, and Tamar Mitts. 2016. "Can War Foster Cooperation." *The Journal of Economic Perspectives* 30 (3): 249–74.
- Galdini, Franco. 2014. "Kyrgyzstan Violence: Four Years On." July 1, 2014. <https://www.aljazeera.com/indepth/opinion/2014/06/kyrgyzstan-violence-2010-201463016460195835.html>.
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- Horowitz, Donald L. 2001. *The Deadly Ethnic Riot*. Berkeley: University of California.
- Kijewski, Sara, and Markus Freitag. 2018. "Civil War and the Formation of Social Trust in Kosovo: Posttraumatic Growth or War-Related Distress?" *Journal of Conflict Resolution* 62 (4): 717–42.
- Rohner, Dominic, Mathias Thoenig, and Fabrizio Zilibotti. 2013. "Seeds of Distrust: Conflict in Uganda." *Journal of Economic Growth* 18 (3): 217–52.

## Appendix

**Figure 4. Payoff Illustration in Prisoner's Dilemma**

	You	Partner	
+	60	60	-
-	80	80	+
-	20	100	-
+	100	20	+

**Figure 5. Effect of Riot on Prosocial Behavior**

