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GOV 2001 Replication Memo

Paper: The Legacy of Historical Conflict: Evidence from Africa
Replication authors: Bowles-Bullock-Mazumder

The replication authors did a very good job of replicating the many tables in this paper. All of the estimates were the same or very close. The code ran without any errors. I believe that this is very good paper to replicate and improve upon not only because the replication authors can address some of the technical issues with the original analysis, but also because the paper is in a good journal and the original authors, in my view, did not satisfy the “so what?” question about this topic.

My issues with the original paper are related to: 1) the overall intent and framework, and 2) the technical merit of the analysis.

Overall intent and framework

The original authors aimed to assess whether historical conflict in sub-Saharan Africa is correlated with civil conflict and other outcomes in a country in its post-independence history. They brought together data on conflict from the 1400-1700 period with a range of covariates from today as well as in the intervening period. They and those that put together these data are to be commended for the tremendous effort that went into generating these data (through both geocoding and historical document review) as well as in cleaning and merging these data.

However, the correlation between conflict 400 years ago in these areas and conflict and lack of trust in a contemporary society is unsurprising given the data and two historical periods considered. Conflict was rampant in both time periods. I would posit that an analogous analysis for many areas of the world (Europe, Asia) would likely yield a relationship between conflict in the 1400-1700 period and contemporary times (albeit the relationship would likely be in different directions).

Thus, in my view, it is unclear “whose mind the authors are trying to change about what” in the original analysis. The relationship established would be unsurprising to most historians and does not tell us much about how historical and current conflict are connected. The policy implications are also limited.

The replication authors should build off this initial attempt to assess historical conflict and today by clarifying and characterizing the nature of the relationships they assess. Are there specific causal pathways through which we believe these historical legacies are resilient? Are there data in the intervening period (between 1700 and 1960) that could also lend insights on how this relationship has changed over time? Are there types of conflicts or areas that are particularly vulnerable to the legacy of conflict?

Technical merit and presentation of the analysis

On the technical side, scale, omitted variable bias and the functional form of the models are concerns. The replication authors could also improve the presentation of the results. More relevant quantities of interest would strengthen this paper.

In terms of scale, the country-level analysis is quite coarse. Conflicts tend to be localized. Furthermore, these national spatial boundaries were not in effect in 1400-1700. The grid-level analysis is a better scale for studying this phenomena, but problems with the standard errors (see below) may be inflating confidence in these results. I would suggest that the replication authors focus on the grid-level as they build on this analysis.

A number of different factors are also concerning for omitted variable bias, including the long time-span of the independent variable of interest, covariates and the dependent variable. Correlation could arise because historical records for sub-Saharan Africa before 1700 are better in some areas than others. The original authors also mention that the country-level analysis is highly affected by outliers – removing Angola and Ethiopia results in statistically insignificant coefficients. This is a major shortcoming and another reason the replication authors should focus on the grid-level going forward. To better tackle confounding at the grid level, the replication authors should think about immigration – how much populations have moved during this time would affect these relationships. Are the same types of groups present in 1400-1700 as in the latter period?

The functional form of the model could also be improved. Since both the dependent and independent variables of interest are counts (number of conflicts in the contemporary period and the period of 1400-1700), a Poisson distribution is advised for both the dependent and main independent variables. Furthermore, since both time-variant and time-invariant factors are included in models 4-6, a mixed effects model is also advised. Currently, time is not being accounted for in these models and it may be throwing off the standard errors. You could either employ a mixed effects model with fixed effects at the cluster-year, or cluster your standard errors at the cluster-year level, so that correlation across time does not bias your standard errors.

Finally, the many tables of coefficients do not tell me much about what the authors are saying to “change my mind”. Predicted probabilities would tell me more about the magnitude of the effects we are talking about. I would suggest that the replication authors produce predicted probabilities so that we can compare these effects across models, as well as better capture the strength of the relationships assessed.

Concluding thoughts

The replication authors chose an excellent paper. There is much room for improvement at the substantive and technical levels. Substantively, the replication authors should fully articulate and examine the causal model they are trying to analyze, potentially by reading more about historical hypotheses of transmission of trust, development and conflict, as well as by incorporating more data into a longitudinal analysis. On the technical side, I would suggest not pursuing the country-level analysis further given its sensitivity to outliers and questionable underlying causal construct. The grid-level analysis has a tremendous amount of potential. It can be further strengthened through robustness checks, controlling better for time, considering immigration and other potential confounders, and producing metrics that truly capture the magnitude of the effects assessed. With these improvements, the replication can truly push the boundaries about what we know about this topic. Good luck!