1. Debugging

(a) https://gist.github.com/diamonaj/2e5d5ba5226b7b9760f5d1bf1e7bf765

Match.out is the output object from the matching but the current output is the genout which is not a Match function thus the code will not provide balance statistics for both before and after matching. I will assume that mout is the match function which has genout as its weight.matrix. In that scenario match.out of the MatchBalance should be mout not genout because

Additionally, if this Lalonde data set, matching on re78 which is the result, may skew the analysis.

(b) https://gist.github.com/diamonaj/3b6bc83d040098486634184d99fc4c55

The default value for Exact is null but in GenMatch, it is specified as Exact =True which means that GenMatch will try to match each covariate in X. However, Exact is not defined for the Match so it is by default null. GenMatch and Match should have the same Exact so we need to change one of the Exact values to match them.

(c) https://gist.github.com/diamonaj/a88cb40132ed8584e5182b585e1c84c8

In MatchBalance, re78 is identified as treatment however in the previous lines it is used to define the outcome (Y). Formul should independent and treatment indicators on different sides so re78 should be replaced with treat to have a result.

2. Replication

https://gist.github.com/dreamero-x/a2af78e04f76ea27b1ac12aea7879a56

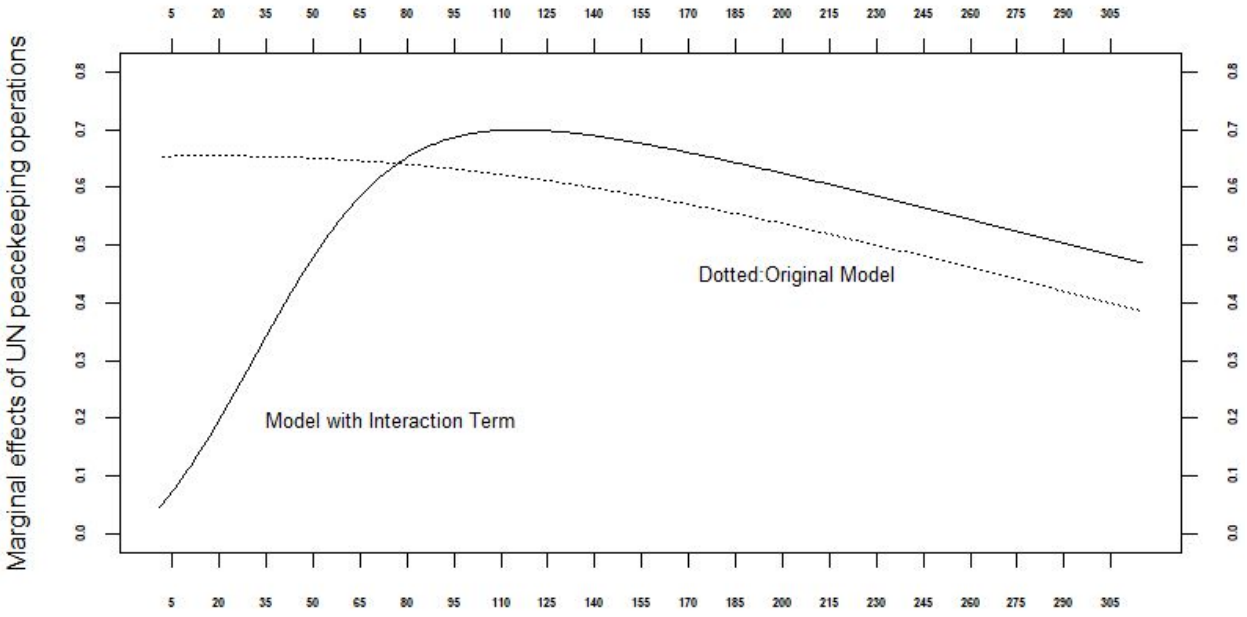

FIG. 8. Causal Effect of Multidimensional UN Peacekeeping Operations

3. Treatment variable

Firstly, we need to understand what uncint initial means and what were the values it gets. Uncit is the type of the UN operation, and the unique entries are Enforcement, None, Observer, PKO. Based on the codebook I redefined them in my data set as "None" equal to zero while Observer equals to 2, PKO equals to 3 and Enforcement equals to 4. If we assign 1 to any value of uncint besides the ones that are already 0 or 1, it means that we will not differentiate between different levels of intrusiveness of UN operations. We will only look if they received any treatment or no treatment at all.

4. Matching

1. What are the impact of UN peace operations on lenient peacebuilding success 2 years and 5 years after the war by making a comparison between treated countries which reviewed some type of UN intervention and control countries which didn't receive any kind of UN interventions when the other variables are controlled?
2. SUTVA might be violated if a conflict or a UN intervention has a spillover effect on the other countries or if the matching matches a country with itself from another year (because same country can be in both control and treatment at different times) and a

previous intervention can effect the country in the future thus they are not independent. By using the "restrict" argument we can prevent the same country matching with itself and if the spillover effects can be identified, we can prevent matching these countries with each other.

3. https://gist.github.com/dreamero-x/a2af78e04f76ea27b1ac12aea7879a56

Table 1: Treatment Effect and p-values of logistic regression, P-score Matching and Genetic Matching

	Tmt effect (bias adj)	Tmt effect (no bias adj)	P-value (from MatchBalance)
Logistic regression/len success 2 years	NA*	0.5996839	NA**(0.0020)
Logistic regression/len success 5 years	NA*	0.8233143	NA**(0.0027)
P- score matching/len success 2 years	0.363588	0.363636	NA**(0.006)
P- score matching/len success 5 years	0.393891	0.393939	NA**(0.01)
GenMatch/len success 2 years	0.116015	NA**(0.0606061)	0.182
GenMatch/len success 5 years	0.146318	NA**(0.0909091)	0.204

**No need to provide bias-adjusted results for logistic regression--only for matching estimates.*
***Only provide a treatment effect for matching results if your leximin p-value is above 0.10. Otherwise write in "NA".*

Notes:
****the functional forms of the propensity score model:** as.numeric(peace$pbs2l) =Tr + wartype + logcost + wardur + factnum + factnum2 + trnsfcap + treaty + develop + exp + decade
****the variables that are genetically matched on:** wartype, logcost, wardur, factnum, factnum2, trnsfcap, treaty, develop, exp, decade
****the MatchBalance variables used for genetic matching:** wartype, logcost, wardur, factnum, factnum2, trnsfcap, treaty, develop, exp, decade

Decision Memo

April 5th, 2019

To: Jonathan R. Cohen, United States Mission to the United Nations
- Acting Permanent Representative

Dear Representative Jonathan R. Cohen,

Executive Summary:

This data analysis paper is an impact assessment of the UN peacekeeping in 117 different cases that took place from 1994 to the present date. The situation of the countries is examined 2 and 5 years after the conflict resolution to assess if the UN intervention brought positive change. Regression models, propensity score matching, genetic matching are the three main statistical

tool to used to examine the causality of the data. As a result of the analysis, it can be said that even though logistic regression yields higher significance as we run the data through propensity score and genetic matching significance gets lower. Therefore it can be concluded that there is minor positive effect of the UN peacekeeping. This results can be used to identify the weaknesses and develop the current conflict resolution methods.

Conclusion:

Since logistic regressions are highly model dependent due to imbalanced control and treatment group units, the results after the matching, especially genetic matching can be seen as more valid. The main reason behind that matching pairs the units in the control and the treatment group based on pre-intervention variables; thus the units are more comparable. The treatment effect is at its minimum after the genetic matching according to Table 1. Thus, the previous UN peacekeeping operations weren't had a major impact but a rather minor positive effect. In all of the cases, the results after 5 years yielded higher significance, but it doesn't directly validify the positive impact of the UN intervention because as the period gets more substantial, there will be more variables that we fail to control in this analysis such as other government or international organizations interventions. Further research is required with more comprehensive data set to assess the effects after 5 years.

Yours Sincerely,

Anonymous Reseacher