

A “Kinds of Blue” Diversity in U.N. Peacekeeping Missions and Civilian Protection

Online Appendix

A.1 Fractionalization vs. Polarization and Weighted vs Unweighted indices

Empirical studies in different disciplines show how the degree of fractionalization can actually lead to effects which are substantially different from those produced by polarization. In a cross-country study of the effect of ethnic diversity on conflict and growth, for example, García Montalvo & Reynal-Querol (2003) find that ethnic polarization has a positive impact on the likelihood of a civil war and a negative effect on a country’s growth rate while ethnic fractionalization does not have any independent effect. Using a different data set, Alesina *et al.* (2003) find that fractionalization works slightly better than polarization as a determinant of policies and economic outcomes.

In section 2 we have speculated on possible mechanisms that explain why diversity can influence, positively or negatively, peacekeepers’ effectiveness. In the previous paragraphs we have further elaborated on how diversity can be conceptualized and operationalized into two different ways: fractionalization and polarization. Moreover, we have suggested how distances between different national contributors could be taken in account. However, since this is the first quantitative study on how U.N. missions’ diversity can influence their effectiveness, and the literature on fractionalization and polarization does not provide unequivocal findings, we have opted for an agnostic position on how and why these two indicators should affect, either positively or negatively, the U.N. mission capacity to protect civilians. Therefore the question of which index does a better job at explaining the performance of the operation is an empirical one.

Table A.1 is a matrix with four quadrants mapping out the possible mechanisms in place. The top-left quadrant identifies a situation where the fractionalization has positive effects, through two distinct mechanisms, complementarity and monitoring, extensively discussed in section 2. The bottom-left quadrant speculates on how polarization can positively influence the effectiveness. Although, to the best of our knowledge, there are no existing theories on a possible positive effect of the polarization on a mission or team’s performance, we may expect that in a scenario of high polarization, few countries play a pivotal role in the mission. This should imply low coordination costs as the major contributors coordinate without having to

take into account the preferences of other (minor) contributors. This situation should make the bargaining over a set of possible strategies easier and should lead to a more consistent choice of military strategies. Moreover, with few big players, the strategies put in place are unlikely to change over time, thus providing a strategic consistency that in turn should facilitate the task of protecting the civilians. The top-right quadrant summarizes the possible negative effects of fractionalization on peacekeepers effectiveness. We argued that fractionalization could decrease a U.N. mission capacity to protect civilians due to high coordination costs because of coordination problems. Finally, the bottom-right quadrant reports the mechanisms leading to negative effects of polarization. As we anticipated in section 2, the presence of veto players can lead to Catch-22 situations, where the peacekeepers cannot be as proactive as the major contributors to the mission exercise veto power. A related negative impact of polarization is the radicalization of preferences caused by the overconfidence of the major contributors. In this specific case, since some contributors have a relatively major role in the mission, they might tend to overstate their preferences and needs and therefore make an agreement among donor countries less likely, thus hampering the positive impact of the mission.

Table A.1: Costs and Benefits of Diversity: fractionalization vs. Polarization

	Positive	Negative
Fractionalization	Monitoring Complementarity	High Coordination Costs
Polarization	Low Coordination Costs	Veto Players Preferences Radicalization

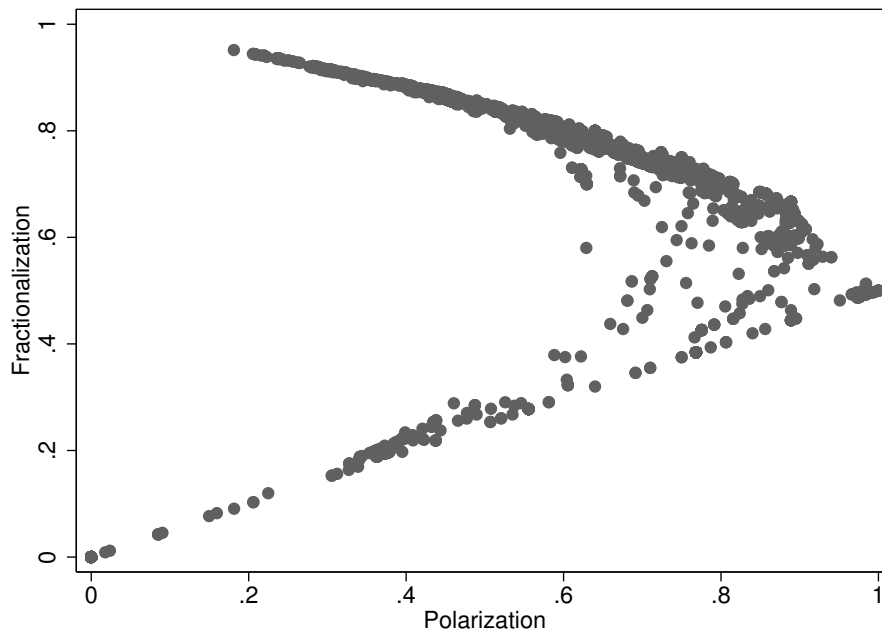


Figure A.1: Troop fractionalization versus Troop Polarization. If we scatterplot troop fractionalization versus troop polarization, for low levels of fractionalization the correlation with polarization is positive, while for intermediate levels of fractionalization, the correlation is zero. For high levels of fractionalization the correlation with polarization becomes negative. This is because in the fractionalization index, the size of each group has no effect on the weight of the probabilities of two individuals belonging to different groups, whereas in the polarization index these probabilities are weighted by the relative size of each group. Therefore, the correlation is low when there is a high degree of heterogeneity. Generally speaking, if the number of groups is larger than two, the existence of many small groups increases fractionalization but reduced polarization

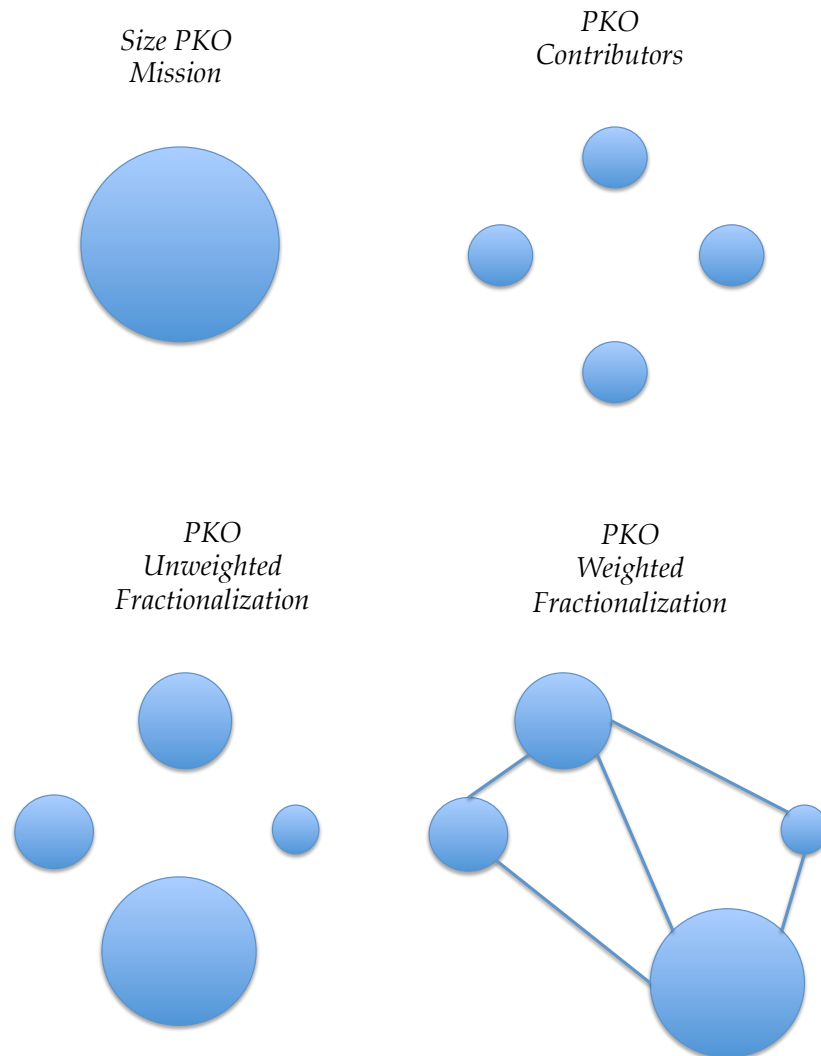


Figure A.2: This figure displays in an intuitive way the difference between weighted and unweighted fractionalization. In the top part, we represent graphically two measures already used in previous works: the size of a mission (conceptualized as a circle) and the number of donor countries (i.e., the circles of equal size). In the lower part of the figure, we provide graphical intuitions for our fractionalization indices: the unweighted index takes into account the two above measures (size and contributors), hence there are several circles (number of contributors) but with different sizes. However, only the weighted fractionalization relaxes the assumption that distances (e.g., linguistic, geographic, etc.) between contributors are the same; therefore, after incorporating this feature, this index can be conceptualized as a sort of network.

A.2 Additional Tables

Table A.2: Summary Statistics

Variable	#Obs	Mean	Std. Dev.	Min	Max
All OSV	577	294.825	6075.651	0	145844
log UN Troops (t-1)	577	3.633	5.168	0	17.129
log UN Police (t-1)	577	0.168	0.312	0	1.132
log UN Observers	577	0.177	0.206	0	1.039
Conflict Duration	577	100.883	54.790	2	204
Government Conflict	577	1.686	0.464	1	2
log Population	577	9.877	1.205	7.878	11.252
All Battle Deaths (t-1)	577	11.686	46.781	0	510
All OSV Dummy (t-1)	577	0.405	0.4914	0	1
# Countries	577	16.963	10.319	1	42

Table A.3: Panel with Fixed Effects (NATO and ECOWAS)

	i	ii	iii	iv	v
DV: All OSV					
UN Troops(t-1)	-0.107*** (0.041)	-0.106*** (0.041)	-0.125*** (0.040)	-0.119*** (0.040)	-0.126*** (0.043)
UN Police(t-1)	0.389 (0.498)	0.371 (0.503)	0.465 (0.491)	0.380 (0.508)	0.419 (0.513)
UN Observers(t-1)	1.647** (0.678)	1.696** (0.694)	1.599** (0.700)	1.736** (0.718)	1.772** (0.722)
Conflict Duration	0.003** (0.001)	0.003* (0.002)	0.003** (0.001)	0.004** (0.002)	0.004** (0.002)
Government Conflict	0.754** (0.333)	0.769** (0.336)	0.647* (0.337)	0.681** (0.338)	0.658* (0.339)
Population	0.633*** (0.124)	0.647*** (0.132)	0.640*** (0.119)	0.683*** (0.133)	0.677*** (0.133)
All Battle Deaths(t-1)	0.004*** (0.001)	0.004*** (0.001)	0.003*** (0.001)	0.003** (0.001)	0.003** (0.001)
All OSV Dummy(t-1)	1.211*** (0.155)	1.207*** (0.156)	1.212*** (0.155)	1.198*** (0.156)	1.200*** (0.156)
Fractionalization	-0.649* (0.392)	-0.591 (0.438)			0.322 (0.586)
# Countries		-0.006 (0.019)		-0.012 (0.017)	-0.018 (0.020)
Polarization			-0.954*** (0.364)	-0.919** (0.366)	-1.112** (0.509)
Observations	577	577	577	577	577

Robust standard errors are given in parentheses clustered by conflict

Table A.4: Panel with Fixed Effects (Weighted linguistic distances between countries - lp2BR)

	i	ii	iii	iv	v
DV: All OSV					
UN Troops(t-1)	-0.105** (0.041)	-0.104** (0.041)	-0.125*** (0.039)	-0.113*** (0.039)	-0.114*** (0.041)
UN Police(t-1)	0.302 (0.511)	0.230 (0.521)	0.604 (0.481)	0.350 (0.510)	0.358 (0.527)
UN Observers(t-1)	1.768** (0.692)	1.880*** (0.696)	1.488** (0.698)	1.780** (0.704)	1.777** (0.706)
Conflict Duration	0.003* (0.001)	0.003** (0.002)	0.003** (0.001)	0.004*** (0.002)	0.004** (0.002)
Government Conflict	0.700** (0.334)	0.757** (0.337)	0.550 (0.346)	0.618* (0.346)	0.616* (0.348)
Population	0.669*** (0.133)	0.696*** (0.136)	0.608*** (0.118)	0.714*** (0.133)	0.712*** (0.138)
All Battle Deaths(t-1)	0.004*** (0.001)	0.003*** (0.001)	0.004*** (0.001)	0.003** (0.001)	0.003** (0.001)
All OSV Dummy(t-1)	1.199*** (0.156)	1.186*** (0.156)	1.235*** (0.154)	1.196*** (0.156)	1.197*** (0.157)
Fractionalization	-1.617* (0.928)	-1.302 (0.997)			0.075 (1.265)
# Countries		-0.009 (0.010)		-0.017* (0.010)	-0.017 (0.012)
Polarization			-4.895* (2.639)	-5.533** (2.677)	-5.659* (3.420)
Observations	577	577	577	577	577

Robust standard errors are given in parentheses clustered by conflict

Table A.5: Panel with Fixed Effects (Weighted geographic distances between countries)

	i	ii	iii	iv	v
DV: All OSV					
UN Troops(t-1)	-0.099** (0.042)	-0.097** (0.041)	-0.122*** (0.039)	-0.111*** (0.039)	-0.106** (0.042)
UN Police(t-1)	0.228 (0.526)	0.120 (0.539)	0.560 (0.482)	0.313 (0.511)	0.261 (0.550)
UN Observers(t-1)	1.591** (0.677)	1.775*** (0.687)	1.435** (0.692)	1.700** (0.693)	1.704** (0.693)
Conflict Duration	0.002 (0.001)	0.003 (0.002)	0.002* (0.001)	0.003** (0.002)	0.003* (0.002)
Government Conflict	0.811** (0.336)	0.868*** (0.337)	0.689** (0.332)	0.783** (0.333)	0.802** (0.341)
Population	0.638*** (0.123)	0.693*** (0.133)	0.581*** (0.114)	0.684*** (0.130)	0.692*** (0.133)
All Battle Deaths(t-1)	0.004*** (0.001)	0.003*** (0.001)	0.004*** (0.001)	0.003** (0.001)	0.003** (0.001)
All OSV Dummy(t-1)	1.207*** (0.155)	1.187*** (0.156)	1.233*** (0.155)	1.195*** (0.156)	1.192*** (0.156)
Fractionalization	-3.559* (2.007)	-3.098 (2.027)			-0.701 (2.731)
# Countries		-0.011 (0.010)		-0.016* (0.010)	-0.015 (0.011)
Polarization			-10.358* (6.098)	-11.621* (6.143)	-10.177 (8.285)
Observations	577	577	577	577	577

Robust standard errors are given in parentheses clustered by conflict

References

- Alesina, Alberto, Devleeschauwer, Arnaud, Easterly, William, Kurlat, Sergio, & Wacziarg, Romain. 2003. Fractionalization. *Journal of economic growth*, **8**(2), 155–194.
- García Montalvo, José, & Reynal-Querol, Marta. 2003. Why ethnic fractionalization? polarization, ethnic conflict and growth. *Polarization, ethnic conflict and growth (september 2002)*. *upf economics and business working paper*.