

Cooperation, Intelligence, and Keeping the Peace: Civilian Engagement with Peacekeepers in Haiti

June 22, 2016

Appendices

A Neighborhoods Sampled

Table 1 reports a listing of neighborhoods included in our random sample of Port-au-Prince.

Bolosse, Bourdon, Caradeux, Carrefour 1, Carrefour 2, Carrefour 3, Carrefour 4, Carrefour Clercine 1, Carrefour Clercine 2, Champs de Mars, Cite Soleil, Drouillard, Juvenat, Morne Cavaire, Peguyville, Petionville, Petite Palace Cazeau, Meyotte, Sarthe, Zone Predailler

Note: This table reports a listing of the neighborhoods in Port-au-Prince that enter our sample.

Table 1: Neighborhoods Sampled

B Survey Mapping

Table 2 presents the mapping of survey questions into variables used for analysis.

Variable	Survey Question
Effectiveness	MINUSTAH is controlling the gangs. (4-point agreement scale)
Abusiveness	MINUSTAH soldiers commit acts of violence against unarmed civilians. (4-point agreement scale)
Benevolence	MINUSTAH serves primarily the interests of the Haitian people vs. MINUSTAH serves primarily the interests of foreign governments. (5-point agreement with A vs. B)
Information Sharing	If a MINUSTAH soldier asked you for information, how likely it is that you would give it to him? (4-point likelihood scale)
Crime Reporting	If your house was robbed, how likely is it that you would report the crime to MINUSTAH? (4-point likelihood scale) If you or someone in your household suffered sexual violence, how likely is it that you would report the crime to MINUSTAH? (4-point likelihood scale) If you saw a corrupt act committed by a MINUSTAH soldier, how likely is it that you would report the crime to MINUSTAH? (4-point likelihood scale)
PKO Patrols	During the last month, how many times have you seen the Haitian National Police conduct patrols in your neighborhood?
PKO Arrests	During the last month, how many times have you seen the Haitian National Police make arrests in your neighborhood?
HNP Patrols	During the last month, how many times have you seen the Haitian National Police conduct patrols in your neighborhood?
PKO Abuse	During the last year, have you seen a peacekeeper stealing? ... unjustly use force or agress a civilian? ... abuse a woman? ... pay a girl or woman to have transactional sex?
Education	What is the highest level of education you've attained?
Gender	What is your gender?
Religion	What is your religion?
Food Distribution	During the last year, how many food distributions have you seen?
HNP Patrols	During the last month, how many times have you seen the Haitian National Police conduct patrols in your neighborhood?
HNP Arrests	During the last month, how many times have you seen the Haitian National Police make arrests in your neighborhood?

Note: This table presents the measures used to operationalize the key variables of interest.

Table 2: Measure Operationalization

C Mediation Analysis

In this appendix we discuss the results of a mediation analysis using a method that allows us to disentangle multiple potential mechanisms. Imai et al. (2011) provide a framework for estimating causal mediation effects with a single mediator. They use potential outcomes notation to describe the causal model. M_i and Y_i represent the observed value of the mediator and the outcome, respectively, for unit i . $M_i(t)$ represents the potential mediator values under treatment status $t = 0, 1$, and $Y_i(t, m)$ represents the potential outcome values under treatment status t and mediator value m . As a result, the causal mediation effect, or the causal effect of the treatment on the outcome caused by the change in the mediator induced by the treatment, is $\delta_i(t) \equiv Y_i(t, M_i(1)) - Y_i(t, M_i(0))$. The direct effect is $\zeta_i(t) \equiv Y_i(1, M_i(t)) - Y_i(0, M_i(t))$. Imai et al. (2010) show that the mediation and direct effects can be identified under the assumption of sequential ignorability.

Imai & Yamamoto (2013) expand the mediation framework to accommodate the existence of a second mediator $W_i(t)$ that is not assumed to be independent from $M_i(t)$. Under this framework, the sequential ignorability assumption is relaxed to allow M_i to be exogenous conditional on post-treatment confounders W_i . Formally, the sequential ignorability assumption is:

$$\begin{aligned} \{Y_i(t, m, w), M_i(t, w), W_i(t)\} &\perp\!\!\!\perp T_i | X_i = x \\ \{Y_i(t, m, w), M_i(t, w)\} &\perp\!\!\!\perp W_i | T_i = t, X_i = x \\ \{Y_i(t, m, w)\} &\perp\!\!\!\perp W_i(t) = w, T_i = t, X_i = x \end{aligned}$$

This assumption requires that the treatment, mediator of interest, and alternative mediators are conditionally exogenous. However, the mediator of interest M is only assumed to be exogenous after conditioning on the alternative mediators, treatment, and pretreatment confounders. In addition, in order to identify the mediation effect, we must either assume no interaction between the treatment and mediator, or set two parameters by assumption. The first parameter ρ_t is the correlation between the mediator $M_i(t)$ and the interaction effect of the mediator and the treatment. The second is the standard deviation of the coefficient for the treatment-mediator interaction, σ .

Table 3 presents the results of this mediation analysis. The

		<i>Treatment:</i>								
		Security			Abuse			Relief		
		ACME	ADE	% Mediated	ACME	ADE	% Mediated	ACME	ADE	% Mediated
Information Sharing	Efficacy	0.02 (-0.05, 0.08)	0.17 (-0.04, 0.38)	10%	-0.1 (-0.21, 0.01)	-0.02 (-0.19, 0.15)	77%	0.03 (-0.06, 0.11)	0.11 (-0.16, 0.38)	19%
	Abusiveness	-0.02 (-0.09, 0.05)	0.21 (0.01, 0.4)	-9%	-0.05 (-0.16, 0.07)	-0.06 (-0.24, 0.12)	35%	0.01 (-0.07, 0.08)	0.14 (-0.13, 0.42)	5%
	Benevolence	0.01 (-0.05, 0.08)	0.18 (-0.01, 0.38)	6%	-0.08 (-0.18, 0.01)	-0.05 (-0.2, 0.1)	64%	0.03 (-0.06, 0.12)	0.13 (-0.15, 0.4)	23%
Crime Report- ing	Efficacy	0.06 (-0.03, 0.15)	0.06 (-0.11, 0.24)	50%	0.01 (-0.07, 0.1)	-0.1 (-0.23, 0.02)	-16%	0 (-0.06, 0.07)	0.32 (0.1, 0.54)	1%
	Abusiveness	0.07 (-0.03, 0.16)	0.08 (-0.09, 0.25)	54%	0.01 (-0.06, 0.08)	-0.1 (-0.22, 0.02)	-11%	-0.01 (-0.08, 0.06)	0.32 (0.1, 0.54)	-3%
	Benevolence	0.06 (-0.03, 0.14)	0.07 (-0.1, 0.24)	47%	0.03 (-0.06, 0.12)	-0.13 (-0.26, 0.01)	-33%	0 (-0.07, 0.07)	0.32 (0.11, 0.54)	0%

95% confidence intervals shown in parentheses.

The first three columns present the results with exposure to peacekeeper security activities as the main explanatory variable. In Columns 4-6 the main explanatory variable is exposure to peacekeeper relief activities. In Columns 7-9 the main explanatory variable is exposure to peacekeeper abuse. In the first block of six rows, the outcome of interest is how likely someone says they are to share information with peacekeepers (Information Sharing), while in the second, lower block of six rows the outcome of interest is propensity to report crimes to peacekeepers (Crime Reporting). Within each block, rows 1 and 2 show the estimates and standard errors, respectively, on beliefs about peacekeeper efficacy as the mediator, beliefs about peacekeeper abusiveness as the mediator, and beliefs about peacekeeper benevolence as the mediator. For each potential mediator, we present estimates of the Average Causal Mediation Effect (ACME) in the first column, Average Direct Effect (ADE) in the second, and the proportion of the total effect mediated by that particular belief (% Mediated) in the third column.

Table 3: Mediation Analysis

Table 3 shows first that none of the estimated mediation effects are statistically distinguishable from zero. For all of the estimated ACMEs, the 95% confidence intervals include zero. Second, Columns 3, 6, and 9 show that in most cases, the proportion of the total effect that the estimated ACMEs explain is relatively small. The results are also somewhat different across the two outcome measures, Information Sharing and Crime Reporting. In the case of information sharing, exposure to peacekeeper security activities explains a maximum of 10% of the total effect (and in the case of beliefs about abusiveness, the ACME has the opposite sign as the direct and total effects). However, variation in beliefs explains around 47-54% of the relationship between exposure to security activities and propensity to report crimes across all three possible mediators. Similarly, variation in beliefs explains between 35 and 77% of the variation in the relationship between exposure to peacekeeper abuse and propensity to provide information, while the estimated ACMEs in the crime reporting analysis are negative. All of the estimates of the percent of the relationship between relief exposure and both outcomes are relatively small.

From this, we can conclude that there is no conclusive evidence that the relationship between exposure to peacekeepers and changes in behavior is mediated by the beliefs that we've proposed. There are several potential explanations for this pattern. First, this more demanding analysis may be underpowered. Second, there may be other beliefs that matter that we did not measure, or unmeasured variation in the beliefs that we have hypothesized should matter. Finally, people may act differently without updating their beliefs about peacekeepers.

D Interaction Effects

D.1 Interactions between PKO activities

Although we have weak priors over the interactive effects between exposure to peacekeeping activities, we estimate them given the importance of identifying multiplicative effects. Table 4 and table 5 assess the impact of these interactions on individual beliefs and cooperation respectively. See section for a discussion of these results.

	Effectiveness		Abusiveness (Inverted)		Benevolence	
	(1)	(2)	(3)	(4)	(5)	(6)
PKO Security	0.184** (0.064)	0.173* (0.078)	0.044 (0.072)	0.257** (0.082)	0.224* (0.109)	0.171 (0.126)
PKO Abuse	-0.290** (0.070)	-0.206** (0.043)	-0.544** (0.071)	-0.465** (0.055)	-0.239** (0.054)	-0.128** (0.049)
PKO Relief	0.285* (0.133)	0.207* (0.102)	-0.060 (0.135)	-0.025 (0.139)	0.087 (0.078)	0.105 [†] (0.063)
PKO Security × PKO Relief	-0.041 (0.034)	-0.031 (0.028)	0.108* (0.044)	0.056 (0.050)	0.007 (0.089)	0.012 (0.063)
PKO Security × PKO Abuse	0.020 [†] (0.010)	0.026 (0.023)	-0.031 (0.026)	-0.077* (0.032)	-0.002 (0.039)	-0.045 (0.046)
PKO Abuse × PKO Relief	0.103 [†] (0.058)	0.104* (0.046)	-0.124 (0.081)	-0.136* (0.059)	-0.013 (0.060)	-0.062 (0.067)
(Intercept)	0.293 (0.191)	0.311* (0.151)	-0.098 (0.131)	-0.701** (0.143)	0.189 (0.156)	-0.142 (0.190)
Controls	✓	✓	✓	✓	✓	✓
Enumerator FEs		✓		✓		✓
Enumerator FEs		✓		✓		✓
<i>N</i>	462	458	464	460	462	458
R ²	0.125	0.376	0.178	0.381	0.087	0.310

Note: This table presents results assessing the correlation between the interaction of PKO strategies and individual beliefs. Standard errors clustered at the neighborhood level; * significant at $p < .10$; ** $p < .05$; *** $p < .01$. The dependent variable in models 1-2 is the respondent's estimation of peacekeeper's effectiveness in providing security. In models 3-4 the dependent variable is the respondent's estimation of peacekeeper's abusiveness towards Haitian civilians. This measure is inverted: low scores represent high abusiveness while high scores represent low abusiveness. In models 5-6 the dependent variable is the respondent's estimation of the extent to which peacekeepers act in the interests of Haitian civilians.

Table 4: The Interactive Effect of Peacekeeping Activities on Beliefs

	Information Sharing		Crime Reporting	
	(1)	(2)	(3)	(4)
PKO Security	0.130 (0.081)	0.185 (0.136)	0.176** (0.052)	0.076 (0.104)
PKO Abuse	-0.102 (0.066)	-0.120 [†] (0.069)	-0.076 [†] (0.040)	-0.092* (0.040)
PKO Relief	0.295** (0.097)	0.264* (0.103)	0.260* (0.122)	0.319** (0.100)
PKO Security × PKO Relief	-0.048 (0.050)	-0.013 (0.043)	-0.042 (0.053)	-0.004 (0.065)
PKO Security × PKO Abuse	0.024 (0.033)	0.021 (0.048)	0.006 (0.027)	0.058 (0.035)
PKO Abuse × PKO Relief	0.009 (0.067)	0.029 (0.064)	0.039 (0.050)	0.033 (0.042)
(Intercept)	0.190 (0.165)	0.209 (0.187)	0.023 (0.162)	0.092 (0.144)
Controls	✓	✓	✓	✓
Neighborhood FEs		✓		✓
Enumerator FEs		✓		✓
<i>N</i>	485	481	445	441
<i>R</i> ²	0.081	0.208	0.109	0.282

Note: This table presents results assessing the correlation between the interaction of PKO strategies and cooperation. Standard errors clustered at the neighborhood level; * significant at $p < .10$; ** $p < .05$; *** $p < .01$. The dependent variable is willingness to share information with peacekeepers in models 1-2 and willingness to report crimes to peacekeepers in models 3-4. The dependent variables and all exposure measures are standardized.

Table 5: The Interactive Effect of Peacekeeping Activities on Cooperation

D.2 Interaction between exposure to PKO activities and demographics

In this section we also test whether exposure to various types of PKO activities may vary depending on the demographic characteristics of the respondent. For instance, it could be that people with higher socio-economic status are more responsive to experiences with peacekeepers because they have more flexible beliefs, or that their beliefs are less responsive because they have less to gain from peacekeepers.

	Efficacy		Abusiveness		Benevolence	
	(1)	(2)	(3)	(4)	(5)	(6)
PKO Security	0.003 (0.140)	0.055 (0.103)	0.084 (0.130)	0.248 [†] (0.133)	0.081 (0.208)	-0.164 (0.204)
PKO Abuse	0.099 (0.146)	-0.120 (0.128)	-1.074** (0.216)	-0.990** (0.191)	-0.306 (0.279)	-0.208 (0.287)
PKO Relief	0.092 (0.137)	0.063 (0.109)	-0.043 (0.130)	-0.100 (0.112)	0.035 (0.119)	0.131 (0.130)
HNP Security	-0.063 (0.077)	-0.102 (0.076)	0.034 (0.068)	0.008 (0.082)	-0.244** (0.063)	-0.154** (0.057)
Food Distribution	-0.022 (0.027)	-0.023 (0.025)	0.011 (0.026)	0.007 (0.025)	-0.004 (0.014)	-0.009 (0.013)
Education	-0.013 (0.009)	-0.016 [†] (0.008)	0.006 (0.010)	0.005 (0.008)	-0.011 (0.013)	-0.010 (0.012)
Female	-0.070 (0.068)	-0.080 (0.077)	-0.058 (0.096)	0.015 (0.080)	-0.061 (0.089)	0.066 (0.094)
Catholic	-0.267* (0.117)	-0.130 (0.084)	-0.010 (0.066)	-0.049 (0.084)	-0.160 [†] (0.095)	-0.102 (0.073)
Crime	-0.296* (0.129)	-0.238* (0.120)	-0.325 [†] (0.192)	-0.256 [†] (0.148)	-0.027 (0.141)	-0.090 (0.147)
PKO Security × Education	0.018 (0.014)	0.015 (0.012)	0.016 (0.012)	0.010 (0.015)	0.010 (0.020)	0.021 (0.016)
PKO Abuse × Education	-0.040** (0.012)	-0.016 (0.012)	0.043* (0.017)	0.040* (0.016)	0.002 (0.023)	0.007 (0.023)
PKO Relief × Education	0.017* (0.008)	0.007 (0.009)	-0.005 (0.008)	0.001 (0.008)	0.011 (0.010)	0.004 (0.012)
PKO Security × Female	-0.032 (0.130)	-0.110 (0.121)	-0.249* (0.118)	-0.161 [†] (0.097)	0.095 (0.127)	0.229 (0.150)
PKO Abuse × Female	0.094 (0.117)	0.088 (0.100)	0.301 [†] (0.180)	0.312* (0.153)	0.088 (0.159)	0.133 (0.167)
PKO Relief × Female	0.135 (0.089)	0.130 [†] (0.072)	0.103 (0.068)	0.128 (0.089)	-0.022 (0.085)	-0.023 (0.099)
PKO Security × Crime	0.131 (0.090)	0.212* (0.098)	0.061 (0.142)	-0.018 (0.151)	0.048 (0.191)	-0.079 (0.179)
PKO Abuse × Crime	-0.094 (0.175)	0.040 (0.154)	0.037 (0.165)	0.041 (0.143)	0.179 (0.192)	0.054 (0.175)
PKO Relief × Crime	0.115 (0.094)	0.216 [†] (0.116)	0.161 (0.125)	0.132 (0.121)	0.028 (0.130)	0.022 (0.170)
(Intercept)	0.434** (0.162)	0.385** (0.146)	0.009 (0.123)	-0.635** (0.146)	0.213 (0.177)	-0.186 (0.222)
Neighborhood FEs		✓		✓		✓
Enumerator FEs		✓		✓		✓
Observations	438	434	440	436	438	434
R ²	0.159	0.381	0.195	0.402	0.097	0.345

Note: This table presents results assessing the interaction of exposure to peacekeeper activities with education, gender, and a binary measure of exposure to crime in the past year. Standard errors clustered at the neighborhood in parentheses; [†] significant at $p < .10$; * $p < .05$; ** $p < .01$.

Table 6: Exposure to Peacekeeping and Beliefs by Demographic Characteristics

Tables 6 and 7 show that the relationship between exposure to peacekeepers, beliefs, and behavior are relatively consistent across demographic groups. It appears that there is the most heterogeneity across

	Information Sharing		Crime Reporting	
	(1)	(2)	(3)	(4)
PKO Security	0.311 [†] (0.175)	0.421** (0.149)	0.196 [†] (0.104)	0.111 (0.174)
PKO Abuse	0.016 (0.217)	-0.040 (0.244)	-0.165 (0.141)	-0.039 (0.194)
PKO Relief	-0.028 (0.202)	-0.014 (0.207)	0.192 (0.186)	0.271 (0.188)
HNP Security	0.203** (0.065)	0.068 (0.066)	0.085 (0.062)	-0.085 (0.066)
Food Distribution	-0.043* (0.021)	-0.043 [†] (0.022)	-0.026 (0.023)	-0.038 [†] (0.022)
Education	0.004 (0.007)	-0.001 (0.009)	0.015 (0.009)	0.008 (0.009)
Female	-0.083 (0.122)	-0.069 (0.106)	0.029 (0.079)	-0.015 (0.066)
Catholic	-0.074 (0.134)	0.005 (0.128)	-0.099 (0.080)	-0.060 (0.096)
Crime	-0.204 [†] (0.117)	-0.092 (0.140)	-0.129 (0.124)	-0.154 (0.144)
PKO Security × Education	-0.012 (0.017)	-0.015 (0.013)	-0.002 (0.010)	0.001 (0.011)
PKO Abuse × Education	-0.021 (0.017)	-0.017 (0.019)	0.003 (0.011)	-0.008 (0.013)
PKO Relief × Education	0.025 [†] (0.015)	0.022 (0.015)	0.004 (0.014)	0.004 (0.014)
PKO Security × Female	-0.098 (0.086)	-0.013 (0.119)	0.025 (0.109)	0.103 (0.102)
PKO Abuse × Female	0.209 (0.142)	0.227 (0.148)	-0.015 (0.122)	0.004 (0.121)
PKO Relief × Female	0.150* (0.075)	0.116 (0.090)	0.094 (0.090)	0.073 (0.084)
PKO Security × Crime	-0.136 (0.115)	-0.356* (0.154)	-0.070 (0.169)	-0.124 (0.163)
PKO Abuse × Crime	0.190 (0.154)	0.096 (0.190)	0.113 (0.128)	-0.034 (0.180)
PKO Relief × Crime	0.211** (0.065)	0.226* (0.105)	0.004 (0.138)	-0.038 (0.122)
(Intercept)	0.197 (0.159)	0.166 (0.200)	0.036 (0.162)	0.176 (0.159)
Neighborhood FEs		✓		✓
Enumerator FEs		✓		✓
Observations	462	458	422	418
R ²	0.114	0.252	0.127	0.304

Note: This table presents results assessing the interaction of exposure to peacekeeper activities with education, gender, and a binary measure of exposure to crime in the past year. Standard errors clustered at the neighborhood in parentheses; [†] significant at $p < .10$; * $p < .05$; ** $p < .01$.

Table 7: Exposure to Peacekeeping and Cooperation by Demographic Characteristics

subgroups in the case of exposure to abuse, where the beliefs of the educated are less affected by recent exposure to abuse than those of the less educated. There is little evidence of differential effects of exposure to peacekeepers by subgroup on information sharing or crime reporting.

E Determinants of Exposure

Table 8 reports regression results for the determinants of exposure to peacekeeping security, relief and abuse. In addition to our standard battery of controls, we include three control variables that test whether exposure to peacekeeper activities is best explained by (1) factors like proximity to a base that are unlikely to be correlated with our outcomes of interest, or (2) the past provision of information, which would suggest that reverse causation may drive our results. To test whether proximity drives exposure to peacekeepers, we include a variable called PKO Distance that captures how many minutes it takes for the respondent to walk to the nearest MINUSTAH base.¹ To test whether the past provision of information drives exposure, we include a measure of whether, conditional on having been approached by MINUSTAH for information at any point in the past, the respondent provided them with information. Table 8 presents the results of this analysis.

	PKO Security (1)	PKO Abuse (2)	PKO Relief (3)
PKO Info - Approached	1.549 (1.535)	0.693** (0.266)	-0.103 (0.124)
PKO Info - Given	-0.861 (1.259)	-0.479 (0.437)	0.109 (0.096)
PKO Distance	-0.066* (0.030)	-0.049* (0.022)	-0.036** (0.013)
HNP Security	0.354** (0.102)	0.075 (0.065)	-0.00005 (0.040)
Food Dist.	-0.005 (0.007)	-0.020** (0.005)	0.170** (0.013)
Education	-0.019 (0.013)	-0.004 (0.008)	-0.004 (0.005)
Female	-0.036 (0.071)	-0.138 [†] (0.070)	-0.039 (0.052)
Catholic	0.206 [†] (0.118)	-0.018 (0.064)	-0.014 (0.047)
(Intercept)	0.408 (0.284)	0.401* (0.159)	-0.355** (0.128)
<i>N</i>	436	437	411
<i>R</i> ²	0.274	0.070	0.798

Note: This table presents results assessing the determinants of exposure to peacekeeping activities. Standard errors clustered at the neighborhood in parentheses; [†] significant at $p < .10$; * $p < .05$; ** $p < .01$. The dependent variable in model 1 is PKO Security, model 2 is PKO Abuse, and model 3 is PKO Relief.

Table 8: Determinants of Exposure to Peacekeeping

Table 8 shows that proximity to MINUSTAH is strongly predictive of all three types of peacekeeper exposure. Whether a respondent ever provided information to MINUSTAH, conditional on having been approached for information, is not. While the number of respondents who had ever been approached by MINUSTAH for information is small, this casts some doubt on concerns that reverse causation may be driving our results as we see no evidence that peacekeepers target services on civilians who have provided them with information.

F Matching Estimates

Table 9 reports results that analyze a matched and re-weighted frame on the impact of peacekeeping security, table 10 reports results for peacekeeping abuse, and table 11 presents results for peacekeeping relief. Matching is conducted using a non-parametric covariate balancing propensity score procedure following Imai & Ratkovic (2014); Fong & Imai (2014). In addition to the potential confounders used in the main regression analysis also includes the other peacekeeping strategies.

	Effectiveness	Abusiveness	Benevolence	Information Sharing	Crime Reporting
	(1)	(2)	(3)	(4)	(5)
PKO Security	0.130 (0.090)	0.297** (0.086)	0.269** (0.094)	0.352** (0.099)	0.159* (0.074)
(Intercept)	-0.211 (0.243)	-0.811** (0.232)	-0.291 (0.254)	0.070 (0.268)	0.193 (0.201)
Confounders	✓	✓	✓	✓	✓
Neighborhood FEs	✓	✓	✓	✓	✓
Enumerator FEs	✓	✓	✓	✓	✓
<i>N</i>	405	405	405	405	405
<i>R</i> ²	0.410	0.452	0.327	0.294	0.329

Note: This table presents an analysis that assesses the impact of PKO security using a matching estimator. PKO security is matched on all potential confounders, including exposure to peacekeeping relief and peacekeeping abuse. † significant at $p < .10$; * $p < .05$; ** $p < .01$.

Table 9: Matching Estimates for PKO Security

	Effectiveness	Abusiveness	Benevolence	Information Sharing	Crime Reporting
	(1)	(2)	(3)	(4)	(5)
PKO Abuse	-0.200** (0.057)	-0.466** (0.074)	-0.174** (0.051)	-0.023 (0.091)	-0.132** (0.036)
(Intercept)	0.018 (0.197)	-0.746** (0.150)	-0.285 (0.209)	0.046 (0.168)	0.145 (0.140)
Observations	405	405	405	405	405
<i>R</i> ²	0.372	0.430	0.350	0.217	0.285
Confounders	✓	✓	✓	✓	✓
Neighborhood FEs	✓	✓	✓	✓	✓
Enumerator FEs	✓	✓	✓	✓	✓

Note: This table presents an analysis that assesses the impact of PKO abuse using a matching estimator. PKO abuse is matched on all potential confounders, including exposure to peacekeeping security and peacekeeping relief. † significant at $p < .10$; * $p < .05$; ** $p < .01$.

Table 10: Matching Estimates for PKO Abuse

	Effectiveness	Abusiveness	Benevolence	Information Sharing	Crime Reporting
	(1)	(2)	(3)	(4)	(5)
PKO Relief	0.231 (0.144)	0.054 (0.126)	0.115 (0.164)	0.299* (0.150)	0.381** (0.126)
(Intercept)	0.072 (0.214)	-0.775** (0.225)	-0.296 (0.263)	0.485** (0.134)	0.131 (0.172)
N	405	405	405	405	405
R ²	0.403	0.416	0.333	0.278	0.308
Confounders	✓	✓	✓	✓	✓
Neighborhood FEs	✓	✓	✓	✓	✓
Enumerator FEs	✓	✓	✓	✓	✓

Note: This table presents an analysis that assesses the impact of PKO relief using a matching estimator. PKO relief is matched on all potential confounders, including exposure to peacekeeping security and peacekeeping abuse. † significant at $p < .10$; * $p < .05$; ** $p < .01$.

Table 11: Matching Estimates for PKO Relief

G Leave-One-Out Estimators

G.1 Measures

One concern with our use of self-reported measures of exposure to peacekeepers is that some forms of exposure are particularly subjective. This could lead to reverse causation in our analysis, where beliefs about peacekeepers actually shape exposure to them. Because we measure exposure to peacekeeper security and relief with highly visible activities that peacekeepers usually carry out in uniform, it is unlikely that either of those are biased in this way. However, our measure of exposure to abuse is most vulnerable as judgments like whether force is just or unjust, or whether a sexual relationship is abusive or not, can be subjective. One way that we assess the robustness of our analysis to this threat is by assessing whether our results are the same if we construct our measure of exposure to abuse based on subsets of the four types of abuse that we measured.

The following figures plot the coefficients from this analysis across all five of our outcome measures for five different ways that we can construct our measure of abuse, each with 95% confidence intervals. The first coefficient in each plot shows the coefficient using our original measure based on all four types of abuse. The second to fifth show the results of the analysis leaving out exposure to peacekeepers (1) stealing, (2) unjustly using force, (3) abusing women, and (4) engaging in prostitution. Figure 1 plots the coefficients in the analysis on beliefs, and Figure 2 plots the coefficients on abuse in the analysis of cooperation.

Figures 1 and 2 show that the estimates of the effect of abuse of beliefs are quite robust to alternative codings in the case of effectiveness and abusiveness, although less so in the case of benevolence. However, it is worth noting that it is the confidence intervals rather than the magnitude of the coefficient that become weaker when various types of abuse are dropped, and that the effect is stronger when the most subjective form of abuse (the unjust use of force) is dropped. In the case of cooperation, in none of the specifications (including in our original estimate) is there a significant relationship between exposure to abuse and information sharing. However, in the case of crime reporting in our original coding we concluded that there was no significant relationship, but in three out of four of the alternative specifications the coefficient is significant and negative.

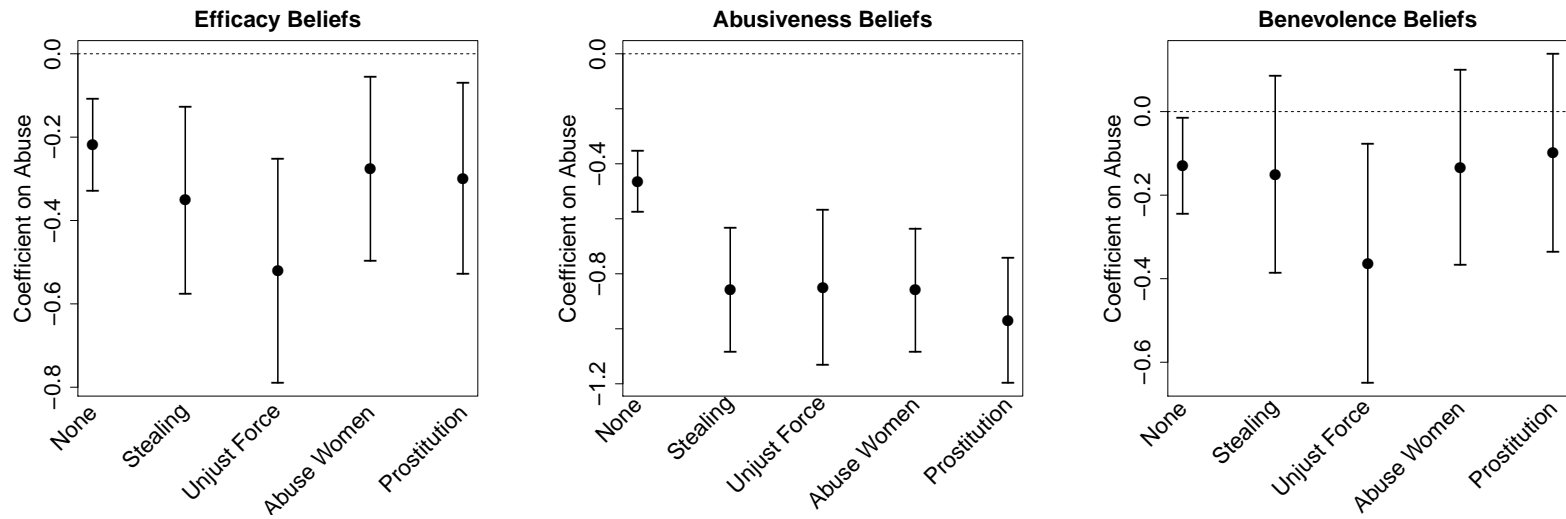


Figure 1: Leave-One-Out Estimators for Abuse Measure on Beliefs

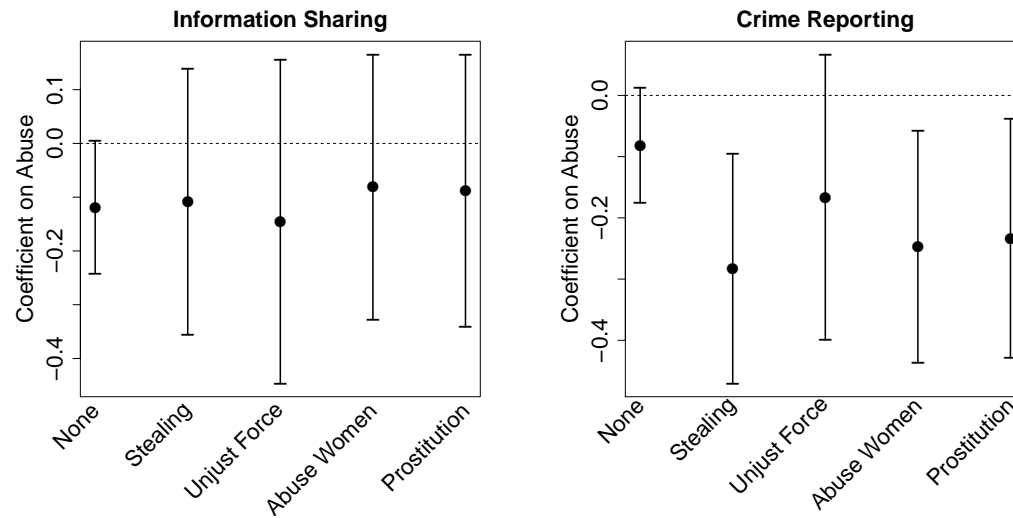


Figure 2: Leave-One-Out Estimators for Abuse Measure on Cooperation

G.2 Neighborhoods

To ensure that no particular neighborhood is driving results, we implement a set of leave-one-out estimators in which we re-estimate the core regressions dropping and then replacing one neighborhood out of in each regression. Table 12, 13, and 14 present results for beliefs over effectiveness, abusiveness, and benevolence respectively. Table 15 and 16 present results for information sharing and crime reporting.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
PKO Security	0.180*	0.198**	0.202**	0.130†	0.182**	0.182**	0.191*	0.200**	0.179**	0.176*
	(0.070)	(0.070)	(0.067)	(0.069)	(0.069)	(0.069)	(0.078)	(0.070)	(0.067)	(0.069)
PKO Abuse	-0.208**	-0.214**	-0.227**	-0.232**	-0.212**	-0.213**	-0.231**	-0.242**	-0.213**	-0.220**
	(0.057)	(0.057)	(0.053)	(0.052)	(0.054)	(0.053)	(0.055)	(0.047)	(0.055)	(0.054)
PKO Relief	0.212*	0.203*	0.176†	0.197*	0.186†	0.181†	0.201*	0.157	0.191*	0.219*
	(0.090)	(0.093)	(0.097)	(0.098)	(0.095)	(0.094)	(0.099)	(0.099)	(0.096)	(0.094)
(Intercept)	0.306*	0.294*	0.372**	0.254†	0.316*	0.733**	0.355*	0.292†	0.340*	0.304*
	(0.142)	(0.147)	(0.134)	(0.142)	(0.145)	(0.253)	(0.141)	(0.161)	(0.138)	(0.154)
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Neighborhood FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Enumerator FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
N	431	439	435	435	439	433	429	434	437	431
R^2	0.355	0.369	0.386	0.368	0.366	0.397	0.355	0.372	0.380	0.371
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
PKO Security	0.176**	0.206*	0.210**	0.152*	0.166*	0.181**	0.190**	0.188**	0.185**	0.174*
	(0.068)	(0.093)	(0.064)	(0.065)	(0.073)	(0.068)	(0.072)	(0.071)	(0.068)	(0.070)
PKO Abuse	-0.216**	-0.239**	-0.223**	-0.176**	-0.212**	-0.217**	-0.230**	-0.229**	-0.212**	-0.211**
	(0.051)	(0.066)	(0.052)	(0.047)	(0.055)	(0.052)	(0.054)	(0.050)	(0.055)	(0.049)
PKO Relief	0.125	0.188†	0.206*	0.191†	0.119	0.192*	0.191*	0.211*	0.204*	0.186*
	(0.114)	(0.098)	(0.088)	(0.100)	(0.096)	(0.096)	(0.094)	(0.089)	(0.093)	(0.092)
(Intercept)	0.240†	0.295*	0.313*	0.312*	0.248†	0.238†	0.295*	0.347*	0.281*	0.300*
	(0.145)	(0.146)	(0.148)	(0.156)	(0.143)	(0.132)	(0.144)	(0.149)	(0.142)	(0.146)
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Neighborhood FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Enumerator FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
N	440	427	438	432	433	440	443	433	435	438
R^2	0.381	0.352	0.379	0.351	0.358	0.372	0.371	0.407	0.379	0.390

Note: This table presents an analysis that assesses the correlation between PKO activities and individual beliefs over effectiveness dropping one and then replacing one neighborhood in each column. Standard errors clustered at the neighborhood in parentheses; † significant at $p < .10$; * $p < .05$; ** $p < .01$.

Table 12: Leave-One-Out Estimator: Belief in Effectiveness

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
PKO Security	0.215** (0.075)	0.197** (0.073)	0.177** (0.060)	0.285** (0.072)	0.202** (0.073)	0.216** (0.078)	0.206** (0.075)	0.218** (0.076)	0.208** (0.077)	0.213** (0.074)
PKO Abuse	-0.452** (0.057)	-0.479** (0.054)	-0.460** (0.053)	-0.436** (0.055)	-0.447** (0.050)	-0.451** (0.053)	-0.472** (0.058)	-0.445** (0.051)	-0.481** (0.054)	-0.458** (0.051)
PKO Relief	0.016 (0.126)	0.014 (0.128)	0.032 (0.117)	-0.009 (0.132)	0.010 (0.120)	0.027 (0.123)	-0.101 (0.096)	0.008 (0.120)	0.018 (0.121)	0.037 (0.115)
(Intercept)	-0.678** (0.143)	-0.673** (0.143)	-0.695** (0.150)	-0.706** (0.150)	-0.685** (0.142)	-0.921** (0.300)	-0.744** (0.132)	-0.759** (0.135)	-0.638** (0.132)	-0.628** (0.143)
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Neighborhood FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Enumerator FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
N	426	433	428	428	432	425	424	429	431	424
R^2	0.312	0.317	0.309	0.333	0.315	0.310	0.324	0.323	0.327	0.295
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
PKO Security	0.221** (0.072)	0.195* (0.093)	0.190** (0.068)	0.222** (0.072)	0.209** (0.070)	0.206** (0.074)	0.221** (0.077)	0.230** (0.068)	0.209** (0.075)	0.233** (0.074)
PKO Abuse	-0.465** (0.052)	-0.456** (0.064)	-0.463** (0.052)	-0.499** (0.055)	-0.471** (0.056)	-0.459** (0.053)	-0.483** (0.049)	-0.470** (0.052)	-0.467** (0.055)	-0.460** (0.055)
PKO Relief	0.019 (0.119)	0.020 (0.121)	0.030 (0.115)	-0.014 (0.132)	-0.001 (0.152)	0.008 (0.124)	0.026 (0.119)	0.044 (0.116)	-0.007 (0.126)	-0.021 (0.116)
(Intercept)	-0.678** (0.141)	-0.682** (0.147)	-0.673** (0.143)	-0.645** (0.153)	-0.689** (0.149)	-0.659** (0.154)	-0.678** (0.139)	-0.736** (0.141)	-0.707** (0.144)	-0.718** (0.135)
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Neighborhood FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Enumerator FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
N	435	420	434	427	429	434	438	428	430	433
R^2	0.320	0.307	0.310	0.295	0.341	0.306	0.313	0.359	0.315	0.342

Note: This table presents an analysis that assesses the correlation between PKO activities and individual beliefs over abusiveness dropping one and then replacing one neighborhood in each column. Standard errors clustered at the neighborhood in parentheses; * significant at $p < .10$; ** $p < .05$; *** $p < .01$.

Table 13: Leave-One-Out Estimator: Beliefs over Abusiveness (Inverted)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
PKO Security	0.130 (0.103)	0.125 (0.097)	0.168 (0.105)	0.201 (0.133)	0.135 (0.097)	0.130 (0.097)	0.094 (0.084)	0.137 (0.100)	0.131 (0.102)	0.141 (0.099)
PKO Abuse	-0.124* (0.052)	-0.138** (0.048)	-0.132** (0.047)	-0.120* (0.047)	-0.127** (0.045)	-0.125** (0.046)	-0.142** (0.043)	-0.143** (0.046)	-0.142** (0.050)	-0.125** (0.045)
PKO Relief	0.116 (0.072)	0.135* (0.066)	0.087 (0.061)	0.155* (0.068)	0.115† (0.066)	0.127* (0.065)	0.137† (0.072)	0.119† (0.068)	0.121† (0.067)	0.113† (0.065)
(Intercept)	-0.123 (0.204)	-0.132 (0.203)	-0.048 (0.188)	-0.093 (0.197)	-0.158 (0.201)	-0.050 (0.316)	-0.108 (0.198)	-0.135 (0.226)	-0.138 (0.202)	-0.094 (0.209)
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Neighborhood FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Enumerator FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
N	424	432	425	426	431	422	424	427	429	424
R^2	0.307	0.289	0.295	0.330	0.300	0.303	0.306	0.288	0.321	0.294
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
PKO Security	0.137 (0.096)	0.195 (0.125)	0.122 (0.097)	0.143 (0.104)	0.169† (0.096)	0.140 (0.097)	0.092 (0.086)	0.130 (0.095)	0.140 (0.099)	0.122 (0.097)
PKO Abuse	-0.132** (0.045)	-0.159** (0.054)	-0.129** (0.044)	-0.133* (0.053)	-0.121** (0.046)	-0.132** (0.045)	-0.102** (0.035)	-0.127** (0.043)	-0.135** (0.046)	-0.120** (0.041)
PKO Relief	0.121 (0.087)	0.110† (0.065)	0.127* (0.064)	0.122† (0.064)	0.079 (0.061)	0.137* (0.061)	0.132* (0.060)	0.114† (0.066)	0.129* (0.064)	0.117† (0.064)
(Intercept)	-0.147 (0.217)	-0.154 (0.212)	-0.179 (0.205)	-0.103 (0.208)	-0.166 (0.198)	-0.193 (0.217)	-0.141 (0.200)	-0.292* (0.145)	-0.136 (0.200)	-0.161 (0.198)
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Neighborhood FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Enumerator FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
N	427	419	429	425	427	433	435	429	430	432
R^2	0.291	0.294	0.298	0.289	0.301	0.307	0.303	0.333	0.292	0.347

Note: This table presents an analysis that assesses the correlation between PKO activities and individual beliefs over benevolence dropping one and then replacing one neighborhood in each column. Standard errors clustered at the neighborhood in parentheses; * significant at $p < .10$; ** $p < .05$; *** $p < .01$.

Table 14: Leave-One-Out Estimator: Beliefs over Benevolence

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
PKO Security	0.184 [†] (0.105)	0.222* (0.107)	0.195 [†] (0.106)	0.111 (0.106)	0.195 [†] (0.103)	0.185 [†] (0.105)	0.208 [†] (0.110)	0.218* (0.106)	0.190 [†] (0.108)	0.190 [†] (0.102)
PKO Abuse	-0.082 (0.069)	-0.136 [†] (0.073)	-0.103 (0.071)	-0.156* (0.067)	-0.121 [†] (0.071)	-0.113 (0.071)	-0.139* (0.070)	-0.134* (0.068)	-0.118 [†] (0.071)	-0.111 (0.072)
PKO Relief	0.261* (0.109)	0.261* (0.109)	0.275** (0.106)	0.301** (0.101)	0.259* (0.105)	0.256* (0.106)	0.251* (0.116)	0.218* (0.102)	0.226* (0.098)	0.241* (0.103)
(Intercept)	0.247 (0.186)	0.220 (0.193)	0.321* (0.157)	0.194 (0.196)	0.210 (0.192)	0.066 (0.333)	0.251 (0.189)	0.121 (0.193)	0.175 (0.190)	0.249 (0.204)
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Neighborhood FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Enumerator FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<i>N</i>	447	453	447	449	453	445	446	447	453	444
R ²	0.202	0.200	0.215	0.201	0.196	0.212	0.199	0.212	0.201	0.216
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
PKO Security	0.200 [†] (0.104)	0.263* (0.104)	0.184 [†] (0.107)	0.239** (0.091)	0.203* (0.103)	0.203 [†] (0.105)	0.194 [†] (0.110)	0.202 [†] (0.104)	0.196 [†] (0.104)	0.159 (0.100)
PKO Abuse	-0.117 [†] (0.069)	-0.136 (0.085)	-0.123 [†] (0.069)	-0.063 (0.067)	-0.115 (0.072)	-0.125 [†] (0.070)	-0.130 [†] (0.067)	-0.120 [†] (0.065)	-0.110 (0.073)	-0.123 [†] (0.071)
PKO Relief	0.199 (0.128)	0.232* (0.108)	0.261* (0.105)	0.280** (0.103)	0.323** (0.093)	0.264* (0.108)	0.260* (0.107)	0.241* (0.110)	0.239* (0.103)	0.257* (0.104)
(Intercept)	0.144 (0.204)	0.179 (0.195)	0.218 (0.193)	0.213 (0.202)	0.263 (0.179)	0.155 (0.200)	0.171 (0.186)	0.169 (0.203)	0.208 (0.191)	0.203 (0.191)
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Neighborhood FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Enumerator FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<i>N</i>	450	441	450	447	450	454	458	449	451	453
R ²	0.208	0.209	0.208	0.219	0.225	0.218	0.219	0.202	0.200	0.201

Note: This table presents an analysis that assesses the correlation between PKO activities and individual willingness to share information dropping one and then replacing one neighborhood in each column. Standard errors clustered at the neighborhood in parentheses; * significant at $p < .10$; ** $p < .05$; *** $p < .01$.

Table 15: Leave-One-Out Estimator: Information Sharing

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
PKO Security	0.111 [†] (0.067)	0.128 [†] (0.071)	0.133 [†] (0.077)	0.071 (0.070)	0.124 [†] (0.069)	0.126 [†] (0.074)	0.122 (0.077)	0.126 [†] (0.073)	0.119 (0.075)	0.114 [†] (0.068)
PKO Abuse	-0.056 (0.044)	-0.081 (0.052)	-0.080 [†] (0.048)	-0.100* (0.049)	-0.070 (0.045)	-0.084 [†] (0.049)	-0.094* (0.044)	-0.084 [†] (0.048)	-0.082 [†] (0.048)	-0.075 (0.046)
PKO Relief	0.310** (0.108)	0.354** (0.086)	0.306** (0.107)	0.320** (0.107)	0.324** (0.102)	0.315** (0.104)	0.265* (0.115)	0.314** (0.102)	0.299** (0.107)	0.301** (0.105)
(Intercept)	0.085 (0.138)	0.150 (0.121)	0.059 (0.141)	0.053 (0.139)	0.113 (0.135)	0.772** (0.266)	0.084 (0.142)	0.161 (0.123)	0.053 (0.134)	0.123 (0.136)
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Neighborhood FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Enumerator FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<i>N</i>	409	414	412	413	414	411	406	413	413	410
R ²	0.279	0.285	0.263	0.295	0.260	0.260	0.264	0.252	0.267	0.292
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
PKO Security	0.122 [†] (0.072)	0.211** (0.056)	0.132 [†] (0.077)	0.136 [†] (0.077)	0.127 (0.081)	0.133 [†] (0.071)	0.114 (0.071)	0.132 [†] (0.075)	0.123 [†] (0.071)	0.124 (0.076)
PKO Abuse	-0.081 [†] (0.047)	-0.132** (0.043)	-0.082 [†] (0.048)	-0.073 (0.058)	-0.087 [†] (0.052)	-0.079 [†] (0.048)	-0.089 [†] (0.047)	-0.079 (0.048)	-0.074 (0.048)	-0.079 (0.049)
PKO Relief	0.308** (0.101)	0.293** (0.110)	0.318** (0.099)	0.300** (0.104)	0.225* (0.103)	0.322** (0.101)	0.273** (0.099)	0.330** (0.098)	0.302** (0.108)	0.307** (0.104)
(Intercept)	0.102 (0.133)	0.108 (0.138)	0.097 (0.142)	0.101 (0.141)	0.031 (0.132)	0.088 (0.147)	0.101 (0.137)	0.056 (0.141)	0.068 (0.135)	0.100 (0.138)
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Neighborhood FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Enumerator FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<i>N</i>	417	402	414	412	412	415	420	412	412	415
R ²	0.268	0.256	0.257	0.262	0.267	0.283	0.274	0.273	0.273	0.256

Note: This table presents an analysis that assesses the correlation between PKO activities and individual willingness to report crimes dropping one and then replacing one neighborhood in each column. Standard errors clustered at the neighborhood in parentheses; * significant at $p < .10$; ** $p < .05$; *** $p < .01$.

Table 16: Leave-One-Out Estimator: Crime Reporting

H Sensitivity Analysis

One empirical concern is that unobserved heterogeneity may drive our results. In this section we use an approach based on Oster (2014) that identifies the size of such unobserved confounding factors that would be necessary to fully explain the significance of the coefficients on our variables of interest.

Our original model to estimate the effect of exposure to peacekeepers on both beliefs and willingness to cooperate is:

$$Y_{ije} = \alpha_j + \beta_1 S_i + \beta_2 R_i + \beta_3 A_i + \phi \mathbf{X}_i' + \lambda_e + \varepsilon_{ije}$$

To simplify notation, include all observed confounders multiplied by their coefficients in a vector W_1 and isolate one of the three types of exposure as the treatment variable of interest:

$$Y = \beta S + W_1 + \varepsilon$$

We modify the equation to include a vector of unobserved confounding factors W_2 multiplied by their coefficients:

$$Y = \beta S + W_1 + \tilde{W}_2 + \varepsilon$$

First, we assume that $cov(W_1, W_2) = 0$ and that $var(X) = 1$. Second, we invoke the proportional selection assumption that $\delta \frac{\sigma_{1X}}{\sigma_{11}} = \frac{\sigma_{2X}}{\sigma_{22}}$ where $\sigma_{1X} = cov(W_1, X)$, $\sigma_{ii} = var(W_i)$, and δ is the proportionality coefficient. Oster (2014) demonstrates that we can identify the true β based primarily on the coefficients and R-squared values from the regressions of Y on S with and without any observed coefficients. For values of δ close to 1:

$$\beta = \tilde{\beta} - \delta[\hat{\beta} - \tilde{\beta}] \frac{1 - \tilde{R}}{\tilde{R} - \hat{R}}$$

where $\tilde{\beta} \rightarrow \beta + \lambda_{W_2|X, W_1}$ and $\hat{\beta} \rightarrow \beta + \lambda_{W_1|X} + \lambda_{W_2|X}$ when $\lambda_{Y|X}$ is the population analog of the coefficient on X from a regression of Y on X .

To test the sensitivity of these coefficients, we vary levels of δ . Note that this test assumes a maximum R-squared value that can be explained by the regression including both observed and unobserved confounders.

Oster (2014) recommends using a maximum R-squared of $2.2 \times \hat{R}$, the R-squared of the model with all observed confounders. Alternatively, the maximum R-squared could be set to 1, the maximum possible value of R-squared in any regression. In our analysis below, we set the maximum R-squared to the recommended $2.2 \times \hat{R}$ and vary the value of δ over $[0, 2]$. Here we examine the robustness of our main coefficients of interest from the regressions on beliefs and behavior to unobserved heterogeneity.

Figure 3 displays the same for the nine coefficients of interest in our analysis of beliefs about peacekeepers. Figure 4 displays the original and corrected coefficient for the six main coefficients of interest in our analysis of the correlates of cooperation. Each graph displays the parameter δ along the x-axis and the coefficient on the variable of interest along the y-axis. The red line shows the original β estimate, with the original 95% confidence interval shown by the shaded red area. The blue line shows the bias-corrected β estimate under the assumption of varying levels of δ . Each graph also displays the assumed R-squared under the full specification with observed and unobserved confounders, which we have set at $2.2 \times \hat{R}$ as described above. The confidence intervals on the corrected β 's are generated through bootstrapping.

There are two criteria for assessing sensitivity to unobserved heterogeneity. First, if the observed confounders make the β estimate fall closer to zero, one can assess when the sign of the β estimate changes. Alternatively, if the β is increasing in magnitude with δ , one can identify the point at which the corrected β falls outside of the 95% confidence interval of the original estimate as the limit of the robustness of the estimate.

We find strikingly different levels of robustness across our different outcomes. We first assess robustness over cooperation and then beliefs. In the analysis of the correlates of cooperation with peacekeepers presented in Figure 4, the coefficient on exposure to security activities is robust up to and beyond $\delta = 2$ with respect to both cooperative outcome measures. The coefficient on exposure to abuse, however, is robust to $\delta = 1.4$ or $\delta = 1.8$ in the regressions of general information sharing and crime reporting, respectively. The coefficients on relief are robust up to $\delta = 1.9$ and $\delta = 1.1$. These results mean that the coefficient on exposure to security is robust to including coefficients that are twice as strong as the individual level controls and fixed effects (enumerator and neighborhood) that we included in our specifications. The coefficients on abuse and relief, however, are less robust, although in both cases adding controls (under the proportional selection assumption) moves the coefficients farther from zero. Oster (2014) recommends that $\delta = 1$ is a logical standard for robustness, as researchers will often choose the most important factors to measure and include as confounders. Our coefficients on the correlates of cooperation with peacekeepers are robust by

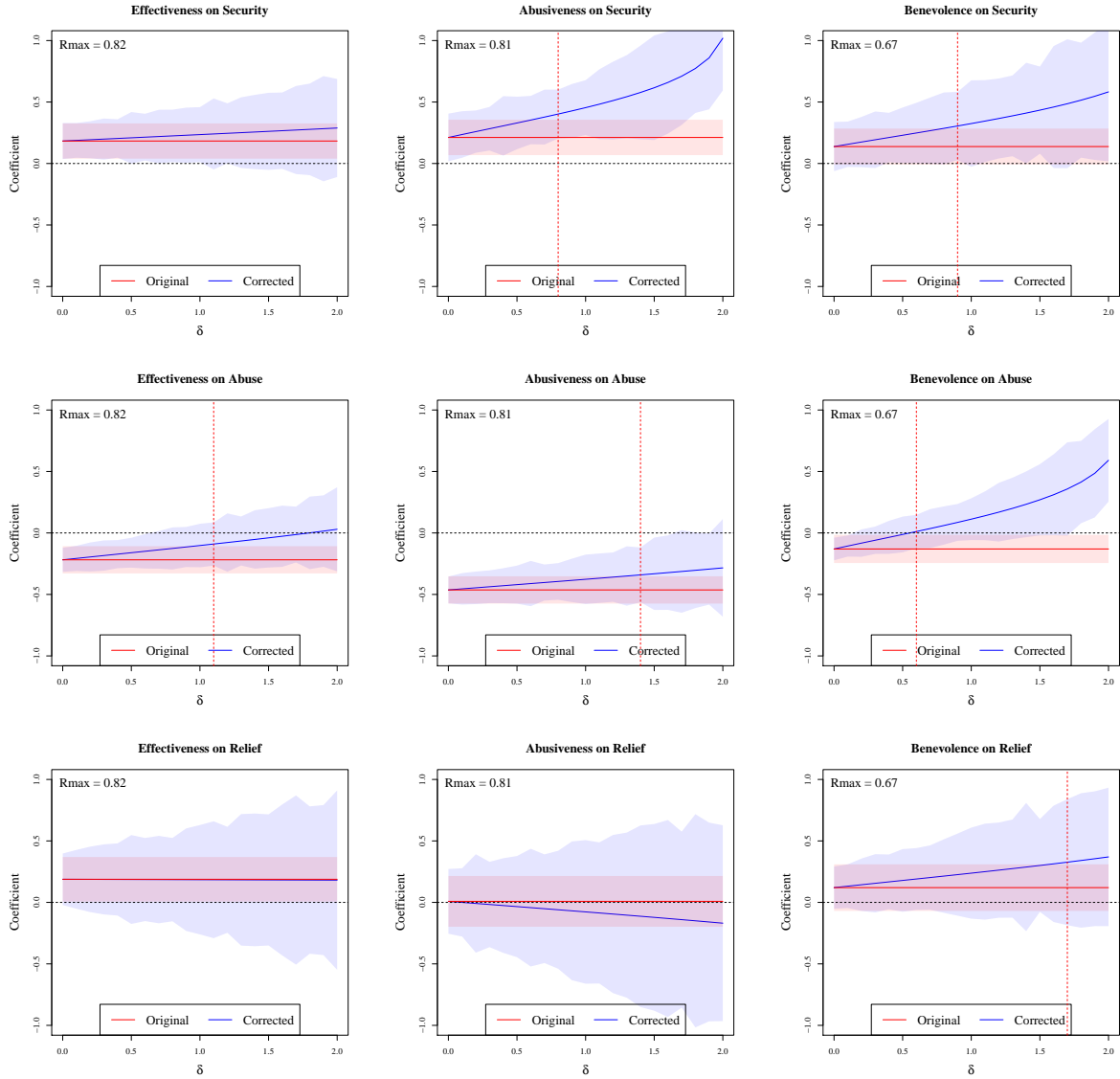


Figure 3: Sensitivity in analysis of beliefs

Note: These figures visualize the robustness of the results on beliefs about peacekeepers following the procedure outlined in Oster (2014).

that standard, suggesting that these results are unlikely to be driven by unobserved heterogeneity.

Turning to the beliefs outcomes in Figure 3, we find similar but slightly less consistent support for our results using this sensitivity analysis. The results on effectiveness beliefs (Column 1 of Figure 3) show that the coefficients on security and relief exposure are largely unaffected by the potential unobserved heterogeneity that we consider, but the coefficient on abuse just passes the $\delta = 1$ threshold. On beliefs about abusiveness, we find that the coefficient on security exposure is not robust to unobserved heterogeneity (although if anything

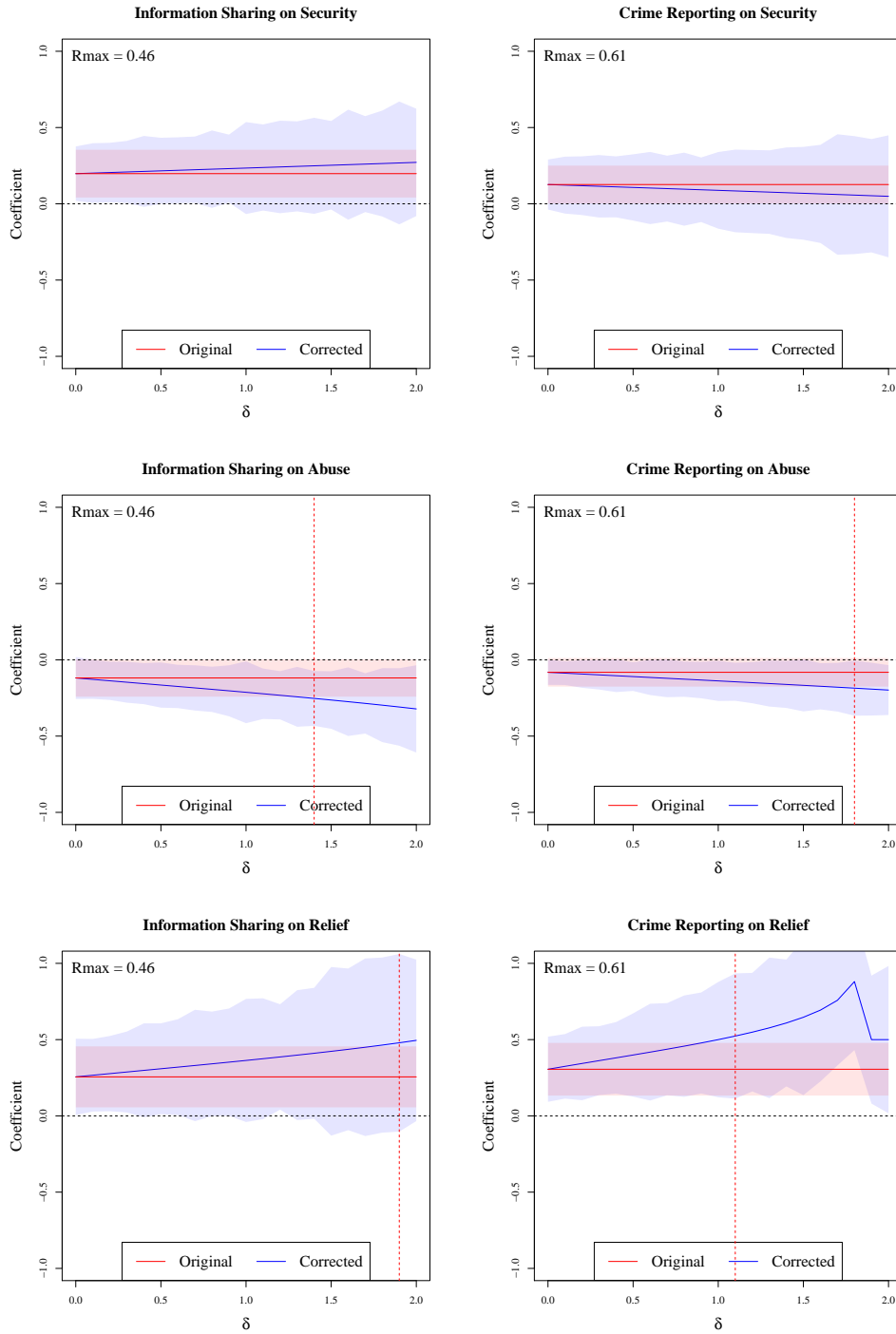


Figure 4: Sensitivity in analysis of willingness to cooperate

Note: These figures visualize the robustness of the results on willingness to cooperate following the procedure outlined in Oster (2014).

this analysis suggests that we are underestimating the relationship), while the coefficients on exposure to abuse and relief pass the test. Finally, in the far right column, we see that the coefficients from the analysis of benevolence beliefs are the least robust, with both the coefficients on security and abuse exposure failing to pass the threshold.

I Visualizations

Figures 5 and 7 plot the coefficients from our main analysis in Tables II and III. Each point corresponds to an estimated coefficient, and the lines display 95% confidence intervals. For example, the first two points in Figure 5 are the estimated coefficients on PKO Security from the analysis with Effectiveness as the dependent variable from Columns 1 and 2 of Table II.

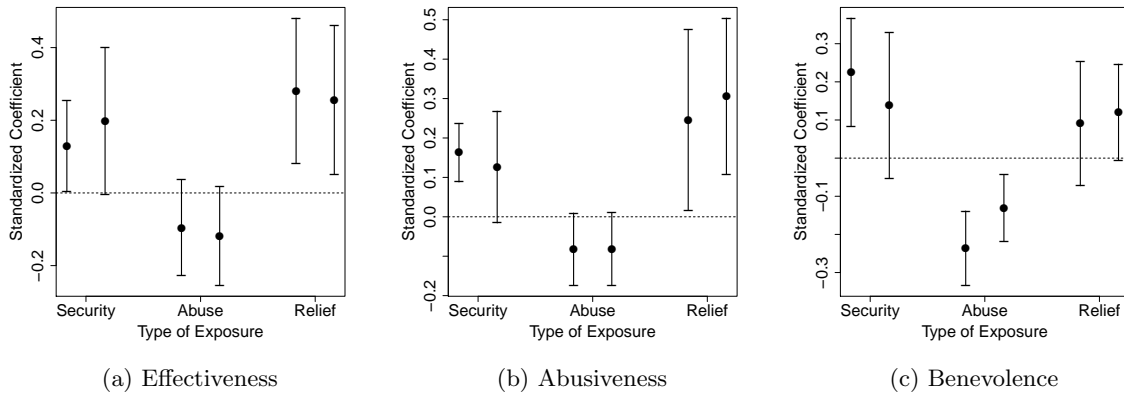


Figure 5: Coefficients on Exposure to Peacekeepers and Beliefs

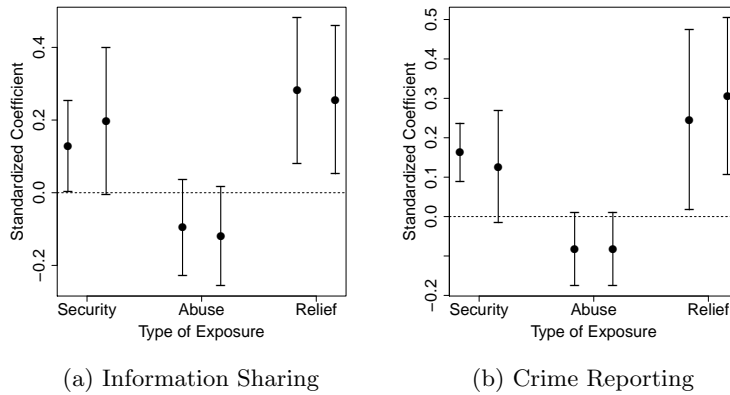


Figure 7: Coefficients on Exposure to Peacekeepers and Behavior

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