Alternative Systems: The Interplay between Criminal Groups' Influence and Political Trust

on Civic Honesty in the Global Context

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Abstract

Individuals' endorsement of standards of civic honesty is necessary for democracies to flourish. A critical driver of civic honesty is the relationship of trust between individuals and institutions. Research has yet to systematically assess the contextual factors that may moderate this relationship. In the present study, we examined the societal influence of organized criminal groups. Criminal groups operate as alternative systems of authority that erode the reliability of institutions' moral standards. We employed a new indicator that quantifies their societal influence to test the hypothesis that the association between individuals' political trust and civic honesty would weaken in countries more strongly affected by criminal groups. Multilevel evidence across 83 representative national samples (N = 128,839) supported this hypothesis. Moreover, the association between political trust and civic honesty was negative in contexts where criminal groups' influence was more extreme. We discuss the implications of the findings and future research directions.

Dishonesty in the context of public goods has significant negative consequences for societies (Ariely et al., 2019; Cohn et al., 2019; Yamagishi, 1986). For instance, tax avoidance costs governments worldwide over $483 billion annually (Tax Justice Network, 2021), money that could be spent on health care, education, or tackling global challenges. Behaviors such as welfare fraud and corruption are highly detrimental to individuals and societies, diverting resources away from programs that could alleviate inequality and ultimately save lives (Azfar et al., 2001; Q. Li et al., 2018). Even relatively minor acts of fraud, such as fare evasion on public transport, can lead to considerable adverse outcomes, affecting the long-term sustainability of public services (Bucciol et al., 2013). Given their great relevance, the conditions leading individuals to endorse or reject moral standards of honesty in the context of common goods have been a topic of inquiry in a wide range of disciplines, including psychology (Tyler, 2006; Van Lange et al., 2013; Vauclair & Fischer, 2011), criminology (LaFree, 1998), economics (Besley, 2020; Knack & Keefer, 1997), and political sciences (Ariely et al., 2019; Putnam et al., 1994).[1]

Research indicates that a critical driver of civic honesty is the extent to which individuals trust political and legal authorities and institutions (LaFree, 1998; Letki, 2006; Levi et al., 2009; Nivette, 2014; Tyler, 2006). Political trust constitutes the foundation of the social contract between citizens and institutions. This social contract leads citizens to perform their civic duty in exchange for good administration (Besley, 2020; Levi & Stoker, 2000). However, prior research has also shown the existence of substantial heterogeneity across countries in the relationship between political trust and civic honesty (e.g., Chan et al., 2017; Travaglino & Moon, 2021). In this research, we examined the question of what might explain

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[1] The construct considered in the present article has been labelled differently across disciplines and research areas, including "civic cooperation" (Balliet & Van Lange, 2013; Herrmann et al., 2008; Knack & Keefer, 1997), "fraud tolerance" (Knechel & Mintchik, 2022) and "law compliance" (Marien & Hooghe, 2011). We employed the label of "civic honesty" (Ariely et al., 2019; Cohn et al., 2019; Letki, 2006), reflecting our focus on individuals' moral standards in the context of the common good.

this heterogeneity by investigating a contextual factor that may profoundly alter the nature of the social contract between citizens and institutions, namely the extent to which countries are influenced by organized criminal groups.

Criminal groups such as mafias and criminal organizations have a strong economic impact worldwide. Because they are "organized", these groups also have substantial social and political influence, corroding the morality of institutions and establishing alternative systems of authority (e.g., Barnes, 2017; Ferreira & Gonçalves, 2022; Lessing, 2020; Travaglino & Abrams, 2019). In this research, we leveraged an indicator developed by the Global Initiative Against Transnational Organized Crime (GI-TOC https://globalinitiative.net/), quantifying the degree of social, economic, and political influence of criminal groups across countries and territories. We used this indicator and representative samples from 83 nations included in the joint European Values Study and World Values Survey (EVS/WVS, 2022) to investigate how the relationship between individuals' political trust and their moral standards of civic honesty may be moderated by cross-country differences in the influence of criminal groups.

Civic Honesty and Political Trust

In the context of public goods, individuals face a dilemma between self and collective interests (Van Lange et al., 2013). Public goods are commodities and services from which individuals cannot be barred. Because individuals can use a public good without sharing the costs, the most rational individual response is free riding. For instance, individuals can benefit from government services while deciding to evade the taxes that make those services possible. Free riding affects the long-term viability of public goods, and societies attempt to limit this behavior by devising systems of punishment (i.e., legal sanctions and surveillance). Such systems are costly, inefficient, and sometimes ineffective (Balliet & Van Lange, 2013; X. Li et al., 2018; Zelditch, 2006).

Despite the rational appeal of free-riding, there is also evidence that individuals act honestly by contributing readily to public goods in the absence of sanctions (Fehr & Fischbacher, 2002). Individuals can internalize moral standards of civic honesty towards public goods, leading them to endorse attitudes that maximize the collective interest (Letki, 2006). Endorsing these standards implies that individuals are less likely to justify and ultimately engage in illegal behaviors (Kirchler et al., 2008; Knechel & Mintchik, 2022; Letki, 2006).

Trust in political authorities and institutions is especially important in shaping individuals' moral standards of honesty. Political trust is a critical feature of the relationship between individuals and institutions (Levi & Stoker, 2000; Norris, 2022) and a crucial component of institutions' legitimacy (Citrin & Stoker, 2018; Tyler, 2006). Research indicates that stronger political trust is associated with a reduced need for sanctions and surveillance because individuals are more likely to comply voluntarily with authorities' requests (Jackson, 2013; Tyler, 2006; Tyler & Huo, 2002). For instance, recent cross-national research has shown that political trust is linked to individuals' willingness to comply with health policies in the context of the COVID-19 pandemic (Devine et al., 2021; Lalot et al., 2022; Pagliaro et al., 2021; Travaglino & Moon, 2021).

Cross-national analyses of several countries and regions have shown that political trust positively predicts individuals' endorsement of civic honesty (Chan et al., 2017; Letki, 2006; Marien & Hooghe, 2011). These studies revealed that political trust is a stronger predictor of civic honesty than "horizontal" forms of trust, namely trust in fellow citizens. The latter finding is consistent with the idea that authorities play a crucial role in upholding the social contract, fostering positive relationships of reciprocity between citizens and the state (Besley, 2020).

Importantly, however, these studies also revealed the existence of cross-country heterogeneity in the relationship between political trust and civic honesty. For instance, using data from the 2010-2015 wave of the WVS/EVS, Chan et al. (2017) investigated the association between political trust and a specific instance of civic honesty, namely the justifiability of tax evasion, across 108 countries. Although political trust positively predicted civic honesty in most countries, they also found weaker, null, and negative associations between the two constructs. Research has yet to systematically address the important question of what may explain this heterogeneity (Chan et al., 2017). In the present study, we focussed on cross-country differences in the influence of criminal groups because of these groups' distinctive capacity to alter the nature of the social contract between citizens and institutions.

The Influence of Organized Criminal Groups

Organized crime is a concept notoriously difficult to define (von Lampe, 2016). In this article, we employed the GI-TOC's definition of organized crime as illegal activities conducted nationally or transnationally by groups or networks to obtain a financial or material benefit (*Methodology*, n.d.). The advantage of using this definition is that it allows quantifying the social impact of various kinds of criminal actors. Accordingly, we employ the label "Criminal Groups" to refer to a broad range of groups, including *mafia-style groups* (structured hierarchical groups with a known name and identifiable membership, also including militias funded by illicit activities), *criminal networks* (smaller and loosely associated groups of criminals without known name or clear leadership structure), *state-embedded* (criminals embedded in the state) and *foreign actors* (criminals operating outside their home country). Criminal groups are involved in the illegal trafficking of drugs and weapons. They place a great burden on societies, increasing global economic costs and security risks.

Criminal groups are an especially critical factor because they directly erode political and legal institutions, reducing the quality of democracy in a country (Allum & Siebert, 2003; Pinotti, 2015; Sung, 2004). Unlike terroristic organizations, typically criminal groups do not have an explicit political agenda. However, in contrast to "disorganized" forms of crime, they can become deeply embedded within societies. To date, little quantitative research has systematically assessed the social implications of these groups' influence (Pinotti, 2015; e.g., Van Dijk, 2007). This gap is especially conspicuous in psychology, where research has focussed almost exclusively on individuals' perceptions of legal institutions whilst paying less attention to the implications of organized criminal groups for individuals' moral and political attitudes (Travaglino & Abrams, 2019).

This gap may in part be due to the challenges associated with quantifying the influence of criminal groups across societies (Hall, 2018; Holmes, 2016). The clandestine nature of these groups and the existence of a large number of different legal definitions have complicated official efforts to measure the phenomenon (Hall, 2018). Consequently, there have been very few systematic attempts to create indicators of organized crime's impact (e.g., Pinotti, 2015). The novel GI-TOC Index employed in the present study is grounded in a shared and broad definition of criminal groups. Moreover, the index benefits from regional experts' local assessments and harmonization of the scores across contexts (*Methodology*, n.d.). These features allow researchers to test hypotheses on how cross-national differences in criminal groups' influence may be linked to individuals' attitudes in crucial domains.

The Present Study

Criminal groups destabilize the social contract between institutions and citizens by colluding with, influencing, and subverting the moral mandate of public bodies (Allum & Siebert, 2003; Van Dijk, 2007). They can establish alternative systems of authority capable of undermining governments' prerogatives. For instance, they are able to replace the state in

offering protection, affirming norms, or managing relationships and exchanges within communities (Gambetta, 1996; Lessing, 2020; Travaglino & Abrams, 2019).

Criminal groups can affect institutions both locally (Kirby et al., 2018) and nationally (Maruko, 2003) because they perform duties that should be fulfilled by the state. Their ability to influence institutions may lead to the view that the government has lost control over some functions or geographical areas. People need not be directly exposed to the threat of criminal groups, or become involved in illegal activities, to be aware of these groups' influence on political and legal institutions (cf. Sobering & Auyero, 2022). This is because criminal groups' actions are widely reported in the media (Di Ronco & Lavorgna, 2018). Therefore, in the present research, we tested the hypothesis that the increase in the influence of criminal groups across countries would be linked to a weaker association between political trust and civic honesty.

Methods

Participants

We tested our hypothesis using representative samples from the joint European Values Study and World Values Survey v. 3.0 (EVS/WVS, 2022). We included in our analyses all the countries for which there were available data (Wave 7, survey period 2017-2022). The sample consisted of 128,839 participants (53.4% female, 46.6% male, M_{age} = 45.29, SD_{age} = 17.01) nested in 83 countries (8 countries from Africa, 13 from the Americas, 26 from Asia, 34 from Europe, and 2 from Oceania). No power analysis was conducted: the sample size depended on the data available.

Measures

Individual-Level Variables

Endorsement of Civic Honesty. Four items in the WVS/EVS drawn from the Morally Debatable Behaviours Scale (Harding et al., 1986) measured individuals' moral

standards of honesty in the civic context (e.g., Letki, 2006; Vauclair & Fischer, 2011). Participants were asked the extent to which each of the following behaviors was justifiable, "Someone accepting a bribe in the course of their duties", "Cheating on tax if you have the chance", "Avoiding a fare on public transport" and "Claiming state benefits which you are not entitled to" (*1 = never justifiable* to *10 = always justifiable*). Items were reversed and averaged (α = .75). Higher scores indicated a stronger endorsement of civic honesty.

Trust in Political and Legal Authorities. To measure political trust, we used items tapping into individuals' confidence in six domestic institutions (as in Newton & Zmerli, 2011), "Parliament", "The Police", "The Civil Service", "The Government", "The Political Parties", "The Justice System/Courts" (*1 = a great deal* to *4 = none at all*). Items were reversed and averaged (α = .88). Higher scores indicated stronger political trust.

Demographics. Guided by previous research (e.g., Letki, 2006; Marien & Hooghe, 2011), in the analyses we controlled for several individual-level variables associated with the endorsement of civic honesty. We included gender (recoded as -1 = men, 1 = women) and measures of age, income, and education. The measure of income used the scales of the WVS (a respondent's assessment of the household income ranging from 1 [= *lowest income group*] to 10 [= *highest*]) and the EVS (a respondent's assessment of the decile to which the household income belongs). The measure of education indicated the highest level of education attained by respondents using the ISCED-code one digit (*0 = less than primary* to *8 = doctoral or equivalent*).[2]

Country-Level Indicators

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[2] In the WVS/EVS, the measure of individuals' political orientation (from left to right) was not fielded in ten countries of the 83 available, reducing the sample size by $N = 32,216$ and removing some of the countries with the strongest influence of criminal groups (e.g., Myanman, Iraq, Lebanon). When included in the model, political orientation did not affect the analyses and the significance of the other variables. Therefore, we estimated a model with all 83 countries.

Influence of Criminal Groups. We used the "Criminal Actors" dimension of the

Global Organized Crime Index (ocindex.net). This indicator quantifies criminal groups'

social, political, and economic impact across nations and territories. The index was built

using extensive reviews of objective evidence, expert-led assessments of countries'

circumstances, regional-expert group meetings, and internal calibration of scores (see

Methodology, n.d.). The indicator's score ranges from 1 (= *non-existent to little influence*) to

10 (= *severe influence*) and rates countries and territories on the impact of different types of

criminal groups, ranging from well-defined and structured organizations (mafia-style groups,

foreign mafias, and guerrilla and militia groups primarily funded by illicit activities) to more

lose networks of organized criminals.

Additional Country-Level Indicators. We sought to control for other country-level

differences that may predict individuals' standards of civic honesty (Letki, 2006; Marien &

Hooghe, 2011). We controlled for two indicators of the state of the economy, the Human

Development Index (HDI) and the Gross Domestic Product per capita (GDPpc). The HDI is

published by the United Nations Development Programme (UNDP) and is a composite index

of life expectancy at birth, average education level (mean years of schooling completed), and

gross national income. The HDI data (range: 0 to 1) were retrieved from the UNDP's website

(https://hdr.undp.org/data-center). The GDPpc data (in US$) were retrieved from the World

Bank Institute website (https://data.worldbank.org/indicator/NY.GDP.PCAP.CD). For both

indicators, we used countries' latest available year.

Because prior research has highlighted the importance of voice in individuals'

compliance with legal standards (Tyler & Jackson, 2014), we also included an indicator of

societies' levels of voice and accountability (range: -2.5 to 2.5). This indicator tapped

countries' freedom of expression, participation, and free media. Finally, because the

influence of criminal groups may be linked to other sources of instability (Makarenko, 2004),

we included an indicator of countries' stability (range: -2.5 to 2.5). This indicator quantifies

countries' general political stability and level of terroristic threats. The indicators of voice

and stability were developed by the World Bank Institute (Kaufmann et al., 1999).

Results

Preliminary Analyses

Figure 1 displays how all the countries included in the study scored on the Influence

of Criminal Groups indicator. To enhance clarity, the figure presents the countries divided by

continent. In our samples, the country with the lowest score was Finland (2.63), while the

countries with the highest score were Myanmar and Colombia (8.13). Table 1 summarizes

means, standard deviations, and correlations among the variables. The overall correlation

between political trust and civic honesty was small but significant ($r = .05$, $p < .001$). This

correlation, however, does not consider cross-country heterogeneity in the association

between the two constructs. We investigated this heterogeneity using a multilevel approach.

Figure 1

Country Distribution of the Influence of Criminal Groups Indicator
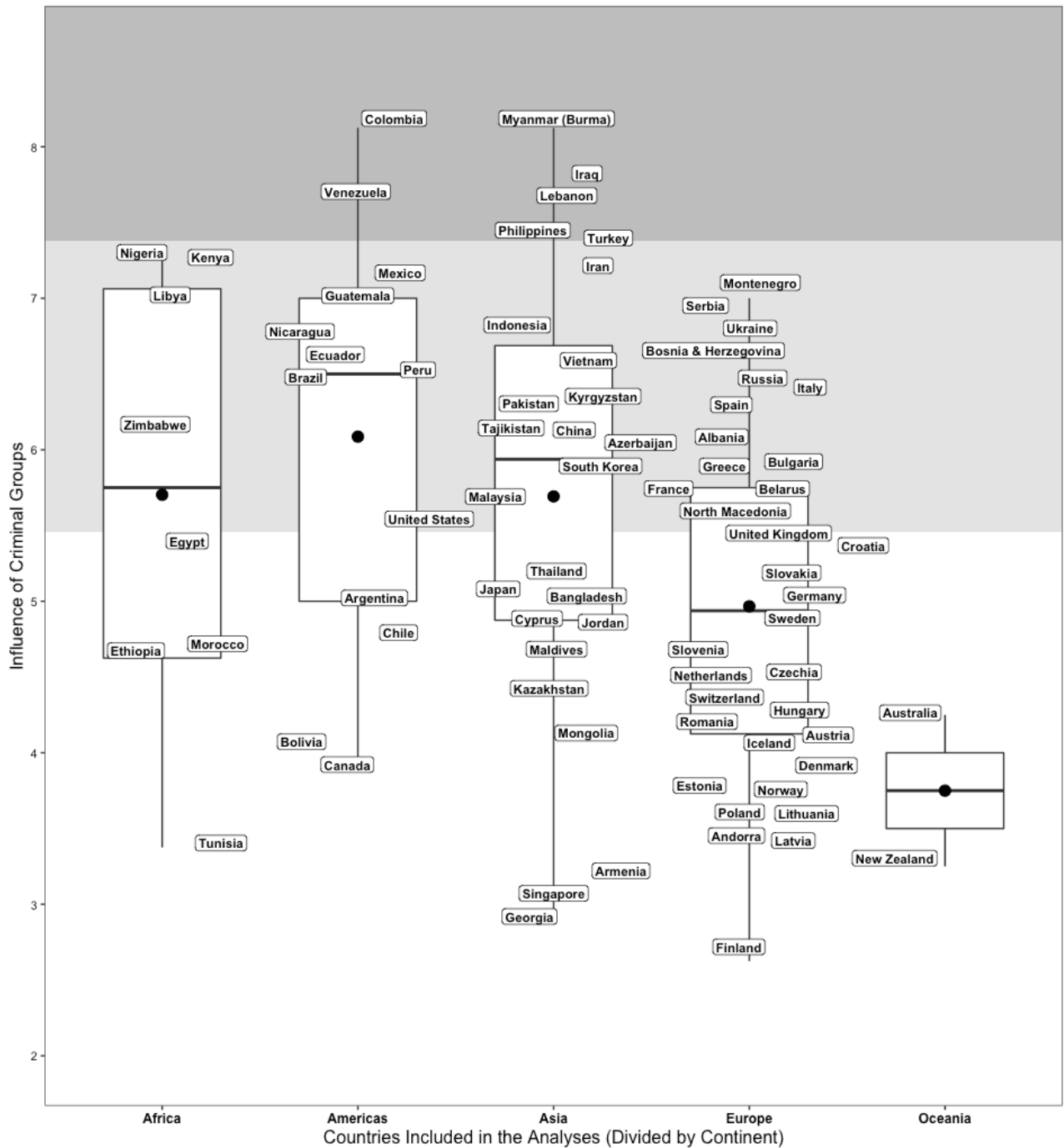
Note. The dots at the center of the boxplots indicate the average degree of influence of criminal groups in each continent (the lines indicate the median). The three bands represent the Johnson-Neyman intervals for the cross-level interaction: in the white band, the predicted relationship between political trust and civic honesty was significant and positive; in the light grey band this relationship was non-significant, and in the dark grey band it was significant and negative (further details are provided in the text).

Table 1

Means, Standard Deviations and Correlations for Country-Level Indicators and Individual-Level Variables

Country-Level Indicators	Mean	SD	1	2	3	4	5
1. Criminal Groups	5.41	1.39	-				
2. HDI	0.80	0.11	-.51***	-			
3. GDPpc (US$)	20,983.81	22,967.33	-.50***	.78***	-		
4. Voice	0.12	1.01	-.55***	.79***	.74***	-	
5. Stability	-0.09	0.95	-.67***	.82***	.72***	.81***	-

Individual-Level Variables			6	7	8	9	10
6. Civic Honesty	8.63	1.69	-				
7. Political Trust	2.35	0.71	.05***	-			
8. Education	3.68	1.97	.01***	-.01***	-		
9. Income	4.91	2.35	.007**	.04***	.30***	-	
10. Age	45.29	17.01	.17***	.04***	-.10***	-.12***	-
11. Gender	-	-	.03***	.01***	-.02***	-.06***	.0002

Note. Gender was coded as -1 = male and 1 = female.
*** $p < .001$. ** $p < .01$.

Testing the Multilevel Model

To test our hypothesis that country-level differences in the influence of criminal groups moderated the association between individuals' political trust and civic honesty, we used a multilevel model in which participants (level 1) were nested within countries (level 2). The intercept of civic honesty was allowed to vary across countries. Political trust was part of the cross-level interaction, and we included the random slope for this variable in the model (as recommended by Heisig & Schaeffer, 2019).

Level 1 variables were group-mean centered (Enders & Tofighi, 2007; Hox et al., 2017). Group centering removes the effects of between-country variation from the level 1 variables, yielding pure within-country estimates of the associations. We reintroduced the between-country effects of political trust in the model by including countries' aggregated scores for this variable. Doing so enabled us to examine (and control for) the associations between political trust and civic honesty at both hierarchical levels.

We built our model using the stepwise approach recommended by Hox et al. (2017). First, we estimated an empty model without explanatory variables. The empty model provided a benchmark for subsequent steps and was used to calculate the intraclass correlation (ICC). ICC indicates the proportion of total variance explained by the grouping structure in the population (Hox et al., 2017). In the current study, the ICC was .15 (a medium effect size), confirming the suitability of the multilevel approach. We then tested a model including all level 1 (individual) variables, followed by a model in which we added all level 2 (country) indicators. Next, we tested a model including the random slope of political trust, followed by a model which also added the cross-level interaction between the Influence of Criminal Groups and Political Trust. We used chi-squares to test fit improvements for the nested models. The results of these tests indicate significant improvement in model fit across steps (see Table 2).

Table 2

Model Fit Changes (χ^2 of ΔDeviance)

Models	$\chi^2(df)$	AIC	BIC
Model 0	-	481,249	481,278
Model 1	2,769.72 (5)***	478,489	478,567
Model 2	19.53 (6)**	478,482	478,619
Model 3	792.66 (2)***	477,693	477,849
Model 4	16.06 (1)***	477,679	477,845

Note. AIC: Akaike Information Criterion; BIC: Bayesian Information Criterion. Model 0 was the intercept-only model; Model 1 added the level 1 variables; Model 2 added the level 2 indicators; Model 3 added the random slope of Political Trust; Model 4 added the cross-level interaction. χ^2 tested the improvement in model fit compared to the prior model.

*** $p < .001$. ** $p < .01$.

The results of the final model are summarized in Table 3. There were significant main effects of individuals' political trust and countries' levels of influence of criminal actors. In line with previous research (e.g., Letki, 2006), participants who reported higher levels of political trust compared to others in their own country also reported stronger endorsement of civic honesty. Conversely, country-level increase in the influence of criminal groups was negatively associated with individuals' endorsement of civic honesty. The hypothesized cross-level interaction was significant, indicating that some of the heterogeneity in the

Table 3

Multilevel Model with Cross-level Interaction

Parameters	*b*	*95% CI*	*SE*	*t-ratio*	*p-value*
(Intercept)	8.620	8.492 to 8.748	0.064	133.56	< .001*
Individual-Level Variables					
Political Trust	0.057	0.007 to 0.106	0.025	2.278	= .025*
Education	0.041	0.036 to 0.046	0.003	16.135	< .001*
Income	-0.003	-0.007 to 0.001	0.002	-1.656	= .098
Age	0.014	0.013 to 0.014	0.001	48.771	< .001*
Gender	0.058	0.050 to 0.067	0.004	13.449	< .001*
Country-Level Indicators					
Criminal Groups	-.166	-0.294 to -0.039	0.064	-2.602	= .011*
Country-Level Political Trust	-0.162	-0.577 to 0.253	0.204	-0.792	= .431
HDI	-0.641	-3.087 to 1.804	1.204	-0.533	= .596
GDPpc	0.282	0.039 to 0.526	0.122	2.300	= .024*
Voice	-0.018	-0.284 to 0.248	0.133	-0.133	= .894
Stability	-0.01	-0.401 to 0.201	0.152	-0.657	= .513
Cross-Level Interaction					
Criminal Groups*Political Trust	-0.076	-0.112 to -0.040	0.018	-4.193	< .001*
Random Effects					
Var(country)	0.342				
Var(political trust)	0.047				
Nakagawa's $R^2_{marginal}$ / $R^2_{conditional}$	0.055/0.179				

Note. HDI = Human Development Index; GDPpc = Gross Domestic Product per capita (in

US$). Gender was coded as -1 = male and 1 = female.

* significant predictor at specified p-value.

slope of political trust could be accounted for by differences in the influence of criminal groups.

To decompose the interaction, we employed the Johnson-Neyman (J-N) technique (Bauer & Curran, 2005; Johnson & Fay, 1950). Rather than selecting two arbitrary points, the J-N technique plots the magnitude and significance of the simple slope of the focal association (the association between individuals' political trust and standards of civic honesty) at each level of the moderator. The plot, therefore, provides a more complete representation of the focal association across the entire range of values of the moderator. A disadvantage of the J-N technique is that it is equivalent to performing multiple comparisons, which may inflate error rates. Therefore, we adjusted the alpha level using the methodology recommended by Esarey and Sumner (2018). The J-N plot for the centered variables is shown in Figure 2.

The slope of the focal association was significant outside the 0.046-1.970 interval of the moderator (SD = .03 to SD = 1.44). In line with our hypothesis, the association between individuals' political trust and moral attitudes became weaker as the influence of criminal groups across countries intensified. At more extreme levels of criminal groups' influence (i.e., more than SD = 1.44 from the mean), the slope was significant and negative, indicating that in those contexts individuals who reported more confidence in political and legal authorities were also more likely to justify deviations from the moral standards of civic honesty. In Figure 1, we plotted the three regions of significance calculated via the J-N against the raw values of the moderator. The white region indicates the values of the Influence of Criminal Groups in which the predicted association between political trust and civic honesty is positive and significant, whereas the light grey area indicates a weaker and non-significant relationship. Finally, the dark-grey area refers to the values of the moderator

in which the predicted association between the variables is negative.[3] In the Appendix

(Tables G-M), we further explored how the influence of different kinds of criminal groups

moderated the association between individuals' political trust and civic honesty. The cross-

level interaction was replicated for all index sub-components except "Criminal Networks".

When added simultaneously, only "Foreign Actors" and "Mafias" significantly interacted

with political trust, as they are distinct from the state and can effectively displace it in

governance functions.

Figure 2

Johnson-Neyman plot of the Focal Association between Political Trust and Civic Honesty at

the Range of Available Data of the Influence of Criminal Groups

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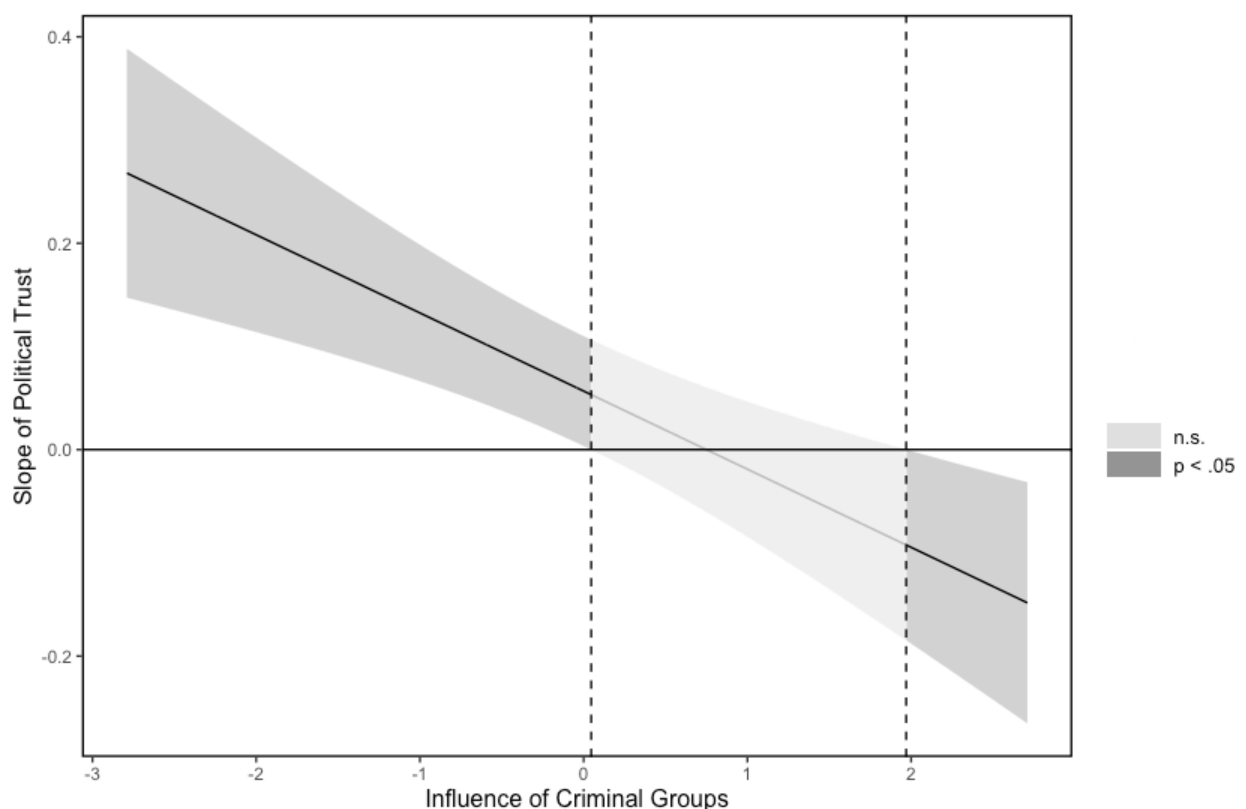
[3] The analyses code is available at this link
https://osf.io/chfx3/?view_only=feae6a948ed24f73b779c3b37342c3e9

Testing the Effects of Other Crime Rates

Criminal groups are organizations that persist over time and have a certain degree of structure. What sets these groups aside from "disorganized" criminals is their ability to influence political institutions, control territories and communities (e.g., Pinotti, 2015; Travaglino & Abrams, 2019). We conducted additional robustness tests to investigate whether differences in other crime rates moderated the association between political trust and the endorsement of civic honesty. We employed a sample of crime rate statistics published by the United Nations Office on Drugs and Crime (https://dataunodc.un.org). Although official crime rate statics are affected by limitations, such as underreporting, they provide a valuable resource for comparative research (Nivette, 2021).

We examined the effects of including a wide range of different crime rates in the model. We addressed visible and impactful offences, including both *violent* (i.e., total rates of intentional homicide [available for 82 countries] and robbery [74 countries]) and *economic* (i.e., theft [75 countries], fraud [56 countries], burglary [69 countries], and corruption [53 countries]) offences. Adding the main effect and cross-level interaction between each of those types of crime and individuals' political trust did not improve the model $\chi^2(2) \leq 4.521$, $p \geq .104$. The only exceptions were the rate of intentional homicide $\chi^2(2) = 8.919, p = .012$ and robbery $\chi^2(2) = 7.089, p = .029$. However, in all the models, the cross-level interactions between crime rates and political trust were not significant $p \geq .063$, whereas the interaction between the indicator of Influence of Criminal Groups and individuals' political trust remained significant $p \leq .034$ (see the Appendix).

Discussion

The conditions that may induce individuals to endorse stronger standards of civic honesty are of substantial scientific and applied relevance. Individuals' views of legal and political authorities – specifically, their trust and confidence in institutions – play a crucial

role in driving adherence to moral and legal standards (Tyler & Jackson, 2014). Trust in authorities fosters people's agreement with the social contract binding citizens and institutions together, and prescribing civic duties in exchange for good governance (cf. Besley, 2020). Despite the relevance of political trust in facilitating the endorsement of civic honesty, prior research has shown some heterogeneity across countries in the relationship between the two constructs (e.g., Chan et al., 2017). However, psychological research has yet to systematically address the contextual dynamics that may explain this heterogeneity.

Here, we examined an important but understudied factor affecting countries worldwide, that is the extent to which they are affected by organized criminal groups. Criminal groups are large and powerful organizations capable of exerting authority over large swathes of the population and corroding the quality and nature of institutions (Barnes, 2017; Lessing, 2020; Travaglino & Abrams, 2019). We tested the hypothesis that the association between trust and the endorsement of civic honesty would be weaker in countries more strongly influenced by such groups.

Results indicated that, in line with previous theorizing and research (e.g., Letki, 2006; Tyler, 2006), individuals' trust in political and legal authorities and institutions was positively associated with the endorsement of civic honesty. However, our study shed light on an important variable linked to cross-country variation in this association. Specifically, the association between political trust and civic honesty significantly weakened in countries where the influence of criminal groups was stronger, in line with the idea that these groups undermined authorities' roles as moral referents. The cross-level interaction between political trust and influence of criminal groups was robust to a series of controls involving other crime rate statistics. Although criminal groups also engage in actions such as fraud and robberies, their ability to become "organized", gain control of territories, and their longevity distinguishes them from "disorganized" acts of crime (Pinotti, 2015).

Notably, albeit not initially predicted, we found that in countries characterized by a more extreme influence of criminal groups, the association between political trust and civic honesty was significant and of the opposite sign. Namely, individuals who reported more confidence and trust in authorities were also less likely to endorse standards of civic honesty and more likely to justify actions such as tax evasion, corruption, and cheating on benefits. A plausible interpretation for this finding refers to criminal groups' capacity to "hijack" the state and subvert the nature and moral mandate of institutions. In contexts characterized by a more extreme influence of criminal groups, institutions often succumb to private and illegal interests, and public bodies may become complicit in illicit practices (Allum & Siebert, 2003; García Pinzón & Mantilla, 2021). It is, therefore, plausible that individuals who report more trust and confidence in institutions in such contexts may also be more likely to endorse immoral standards and justify illegal actions.

Trust can typically be understood as a positive expectation that others—in this case, state institutions—will act in one's best interest (e.g., by promoting welfare among citizens). However, other facets of trust concern the predictability of others' behavior and information certainty (Weiss et al., 2021). Therefore, in contexts with extremely high influence of criminal groups, people's confidence in the institutions might reflect certainty about what kind of (immoral) standards to expect from the entities representing the state. Research on moral disengagement shows that individuals are more likely to rationalize unethical behavior in situations characterized by negative leadership or a general unethical climate (Hodge et al., 2013; Moore et al., 2019; Newman et al., 2020). Thus, confidence in subverted institutions might be accompanied by moral disengagement and lower civic honesty.

Criminal groups' capacity to alter the ways citizens view state institutions may have, in turn, profound implications for democracy. In contexts where the influence of criminal groups is more extreme, lower endorsement of civic honesty may threaten the state's ability

to offer services effectively, giving rise to a negative spiral that can ultimately reinforce criminal groups' influence. A more nuanced measurement of political trust and its facets is needed to better understand how the extreme influence of criminal groups shapes people's understanding of confidence in institutions and, subsequently, the endorsement of civic standards.

Another important priority for future research is to use longitudinal methods and future iterations of the GI-TOC index to investigate these dynamics over time, also considering citizens' attitudes towards illegal, criminal, and other informal practices of governance. Experimental methods should be employed to examine the articulation among the perceived influence criminal groups, individuals' political trust and their endorsement of civic honesty (cf. Spadaro et al., 2022). Finally, as additional data quantifying the impact of criminal groups become available, researchers should assess within-countries differences in the social implications linked to these groups' presence.

More research is also needed to identify the predictors of civic honesty in contexts where individuals' standards are not driven by their confidence in authorities and institutions. Previous research has shown that individuals' cultural values predict the endorsement of moral attitudes in the personal and sexual domains but not the civic one (Vauclair & Fischer, 2011). It is conceivable that cultural and personal values may acquire renewed relevance in contexts where the association between trust in authorities and civic honesty is weakened by the influence of criminal groups. Alternatively, in those contexts, individuals may be more likely to base their moral considerations on instrumental motives and costs-benefit analyses, such as the perceived likelihood of being caught or punished (Tyler, 2006).

Conclusions

In this research, we reported evidence that the harmful influence of criminal groups in society is associated with a lower capacity of political and legal authorities to elicit positive

moral standards of civic honesty among individuals. The weakened role of institutions may have dramatic consequences for the long-term viability of democracy, and is ultimately linked to lower civic cooperation and higher dishonesty. Thus, our findings reveal how criminal groups' influence could have implications beyond economy and security and be linked to individuals' moral attitudes in the civic context. More psychological research is needed to assess criminal groups' wider societal impact.

Notably, as indicated by our results, expressing confidence in political and legal authorities in contexts strongly affected by criminal groups is associated with reduced standards of morality. The latter finding suggests that issues of civic honesty cannot be merely resolved by boosting people's trust in institutions. Where institutions are fundamentally influenced by criminal groups, trust could, in fact, be associated with negative implications. This finding is consistent with the notion that, although extremely valuable, trust is not a panacea (Norris, 2022). In some contexts, critical skepticism from citizens may be warranted and beneficial.

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APPENDIX

Alternative Systems: The Interplay between Criminal Groups' Influence and Political Trust on Civic

Honesty in the Global Context

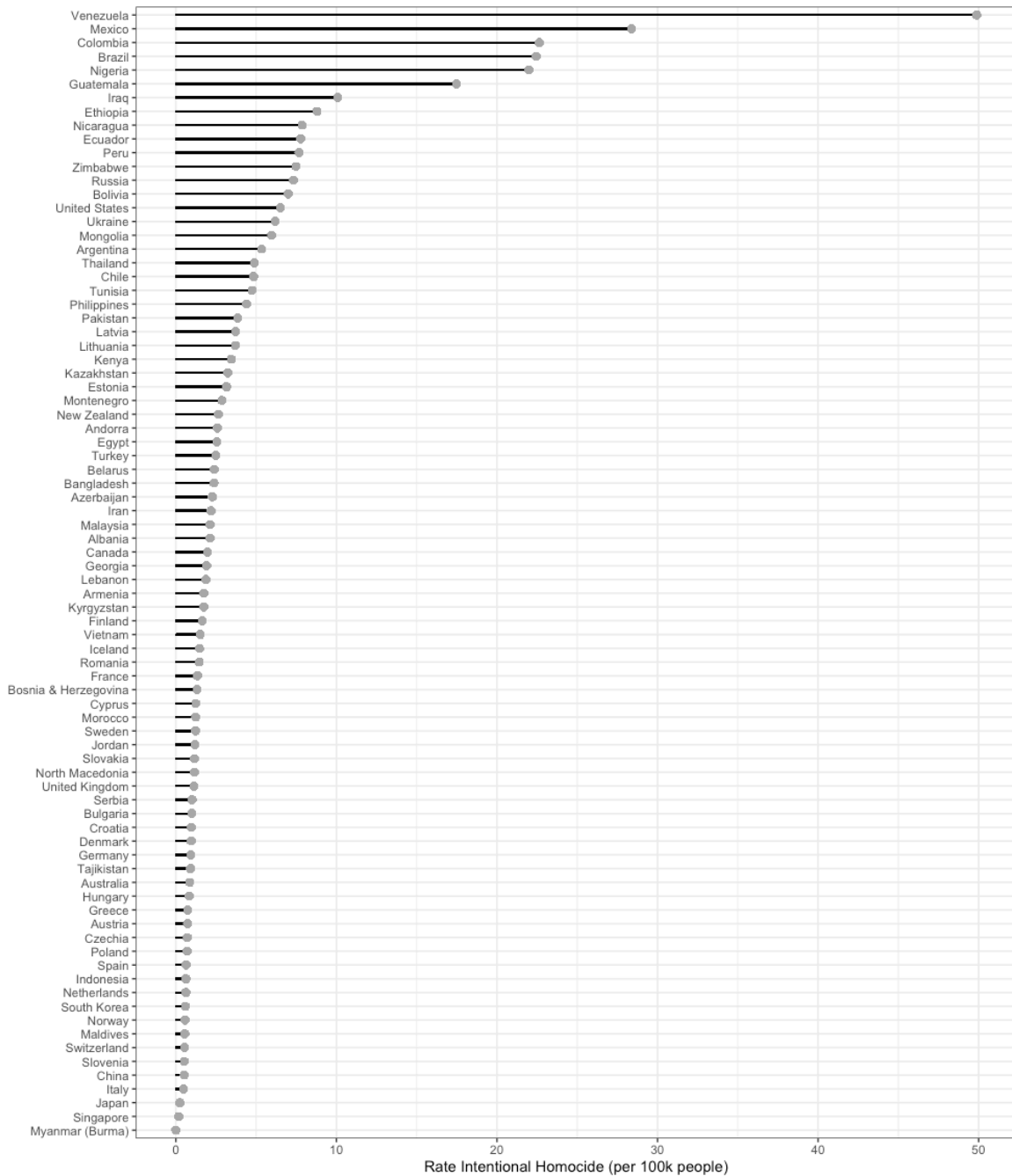Giovanni A. Travaglino[1], Pascal Burgmer[2], Alberto Mirisola[3]

[1] Royal Holloway, University of London
[2] University of Southampton
[3] University of Palermo

Figure A

Rates of Victims of Intentional Homicide across Countries

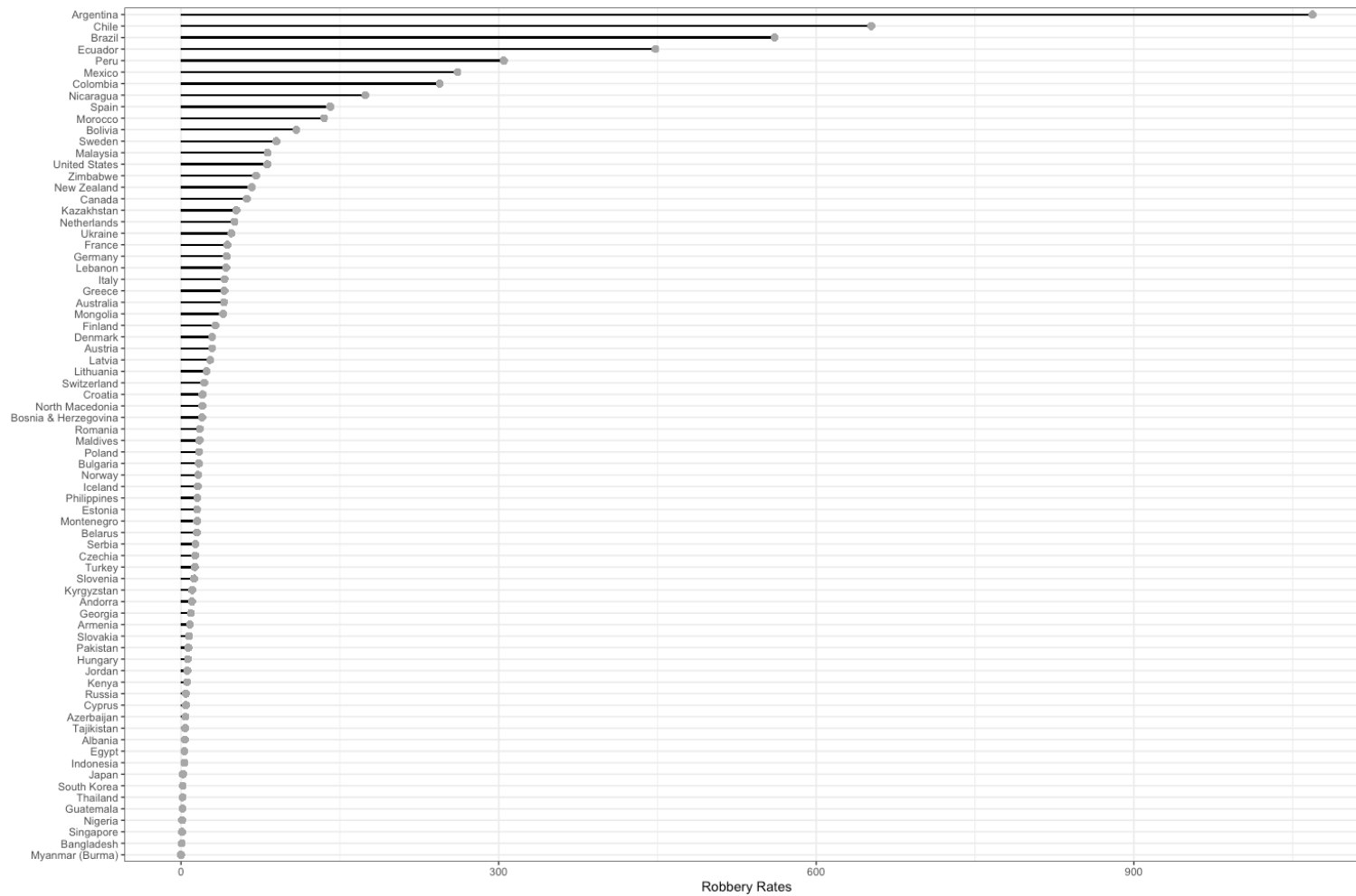Note. The figure reports the rate of total intentional homicide (per 100k people) across countries.

Table A

Multilevel Model Including the Cross-Level Interaction between Political Trust and Intentional Homicide Rates

Predictors	Estimates	CI	p
	Moral Attitudes		
Intercept	8.72	8.57 – 8.88	**<0.001**
Political Trust	0.09	0.03 – 0.15	**0.003**
Country-Level Political Trust	-0.39	-0.83 – 0.05	0.083
HDI	-1.39	-3.72 – 0.95	0.246
Gender	0.12	0.10 – 0.13	**<0.001**
Age	0.01	0.01 – 0.01	**<0.001**
Education	0.04	0.04 – 0.05	**<0.001**
Income	-0.00	-0.01 – 0.00	0.116
GDPpc	0.36	0.12 – 0.61	**0.004**
Voice	-0.05	-0.30 – 0.21	0.722
Stability	-0.08	-0.38 – 0.23	0.623
Rate Homocide	-0.03	-0.05 – -0.01	**0.013**
Criminal Groups	-0.13	-0.25 – -0.00	**0.043**
Political Trust*Criminal Groups	-0.06	-0.10 – -0.02	**0.002**
Political Trust*Rate Homocide	-0.01	-0.01 – 0.00	0.063

Random Effects

σ^2	2.38
$\tau_{00 \ country}$	0.32
$\tau_{11 \ country*political \ trust}$	0.04
$\rho_{01 \ country}$	0.06
ICC	0.12
$N_{country}$	82
Observations	127731
Marginal R^2 / Conditional R^2	0.065 / 0.179

Figure B

Rates of Victims of Robberies across Countries

Note. The figure reports the rate of robberies (per 100k people) across countries.
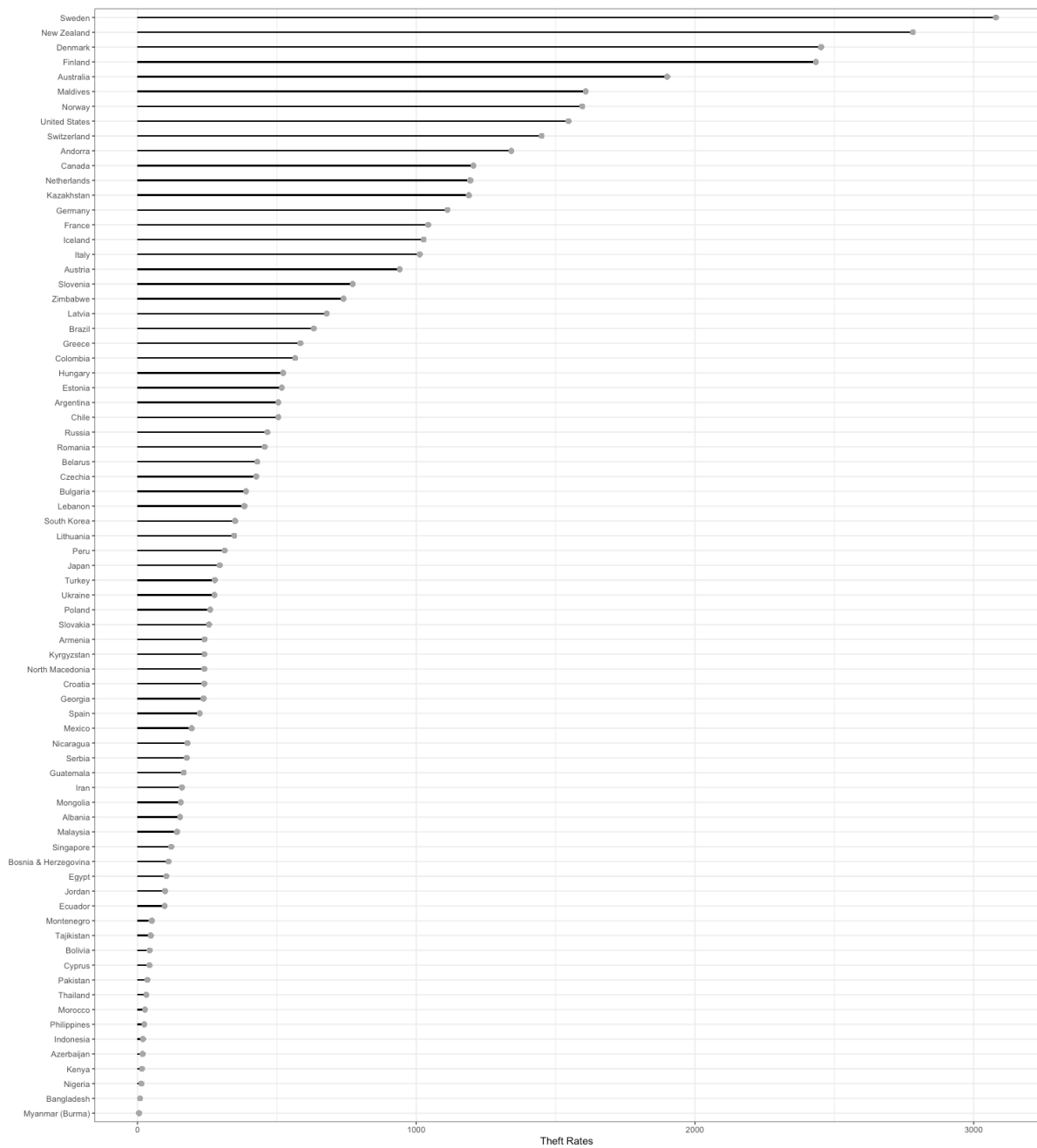
Table B

Multilevel Model Including the Cross-Level Interaction between Political Trust and Robbery Rates

Predictors	**Moral Attitudes**		
	Estimates	*CI*	*p*
Intercept	8.60	8.47 – 8.73	**<0.001**
Political Trust	0.06	0.01 – 0.12	**0.016**
Country-Level Political Trust	-0.36	-0.82 – 0.10	0.128
HDI	-0.73	-3.32 – 1.86	0.581
Gender	0.12	0.11 – 0.14	**<0.001**
Age	0.01	0.01 – 0.01	**<0.001**
Education	0.04	0.03 – 0.04	**<0.001**
Income	-0.00	-0.01 – 0.00	0.274
GDPpc	0.23	-0.02 – 0.49	0.074
Voice	0.05	-0.24 – 0.33	0.754
Stability	-0.04	-0.41 – 0.32	0.815
Robbery Rates	-0.17	-0.29 – -0.05	**0.007**
Criminal Groups	-0.13	-0.27 – 0.00	0.058
Political Trust* Criminal Groups	-0.07	-0.11 – -0.03	**<0.001**
Political Trust*Robbery Rates	-0.01	-0.06 – 0.03	0.599
Random Effects			
σ^2	2.38		
$\tau_{00 \text{ country}}$	0.32		
$\tau_{11 \text{ country political trust}}$	0.05		
$\rho_{01 \text{ country}}$	0.09		
ICC	0.12		
$N_{\text{ country}}$	74		
Observations	115761		
Marginal R^2 / Conditional R^2	0.063 / 0.180		

Figure C

Rates of Theft across Countries

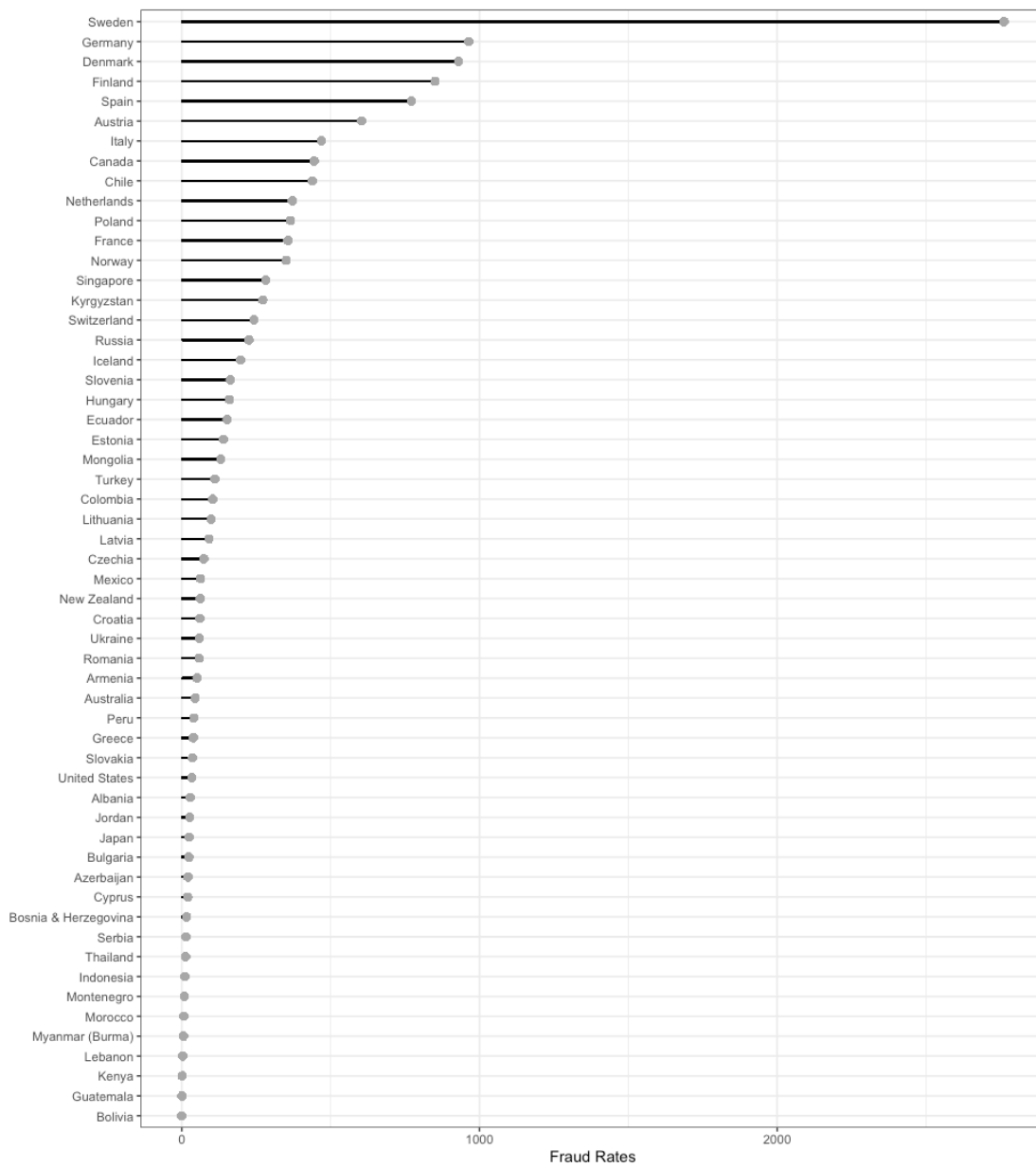Note. The figure reports the rate of theft (per 100k people) across countries.

Table C

Multilevel Model Including the Cross-Level Interaction between Political Trust and Theft Rates

	Moral Attitudes		
Predictors	*Estimates*	*CI*	*p*
Intercept	8.61	8.47 – 8.75	**<0.001**
Political Trust	0.07	0.02 – 0.12	**0.011**
Country-Level Political Trust	-0.21	-0.67 – 0.26	0.384
HDI	-0.79	-3.36 – 1.78	0.546
Gender	0.12	0.10 – 0.14	**<0.001**
Age	0.01	0.01 – 0.01	**<0.001**
Education	0.04	0.03 – 0.05	**<0.001**
Income	-0.00	-0.01 – 0.00	0.210
GDPpc	0.22	-0.07 – 0.51	0.133
Voice	-0.06	-0.35 – 0.23	0.694
Stability	0.03	-0.34 – 0.40	0.875
Theft Rates	0.08	-0.11 – 0.27	0.412
Criminal Groups	-0.12	-0.26 – 0.02	0.099
Political Trust* Criminal Groups	-0.06	-0.10 – -0.02	**0.004**
Political Trust*Theft Rates	0.02	-0.03 – 0.08	0.426

Random Effects

σ^2	2.39
$\tau_{00\ country}$	0.35
$\tau_{11\ country\ political\ trust}$	0.05
$\rho_{01\ country}$	0.08
ICC	0.13
$N_{country}$	75
Observations	117238
Marginal R^2 / Conditional R^2	0.055 / 0.180

Figure D

Rates of Fraud across Countries

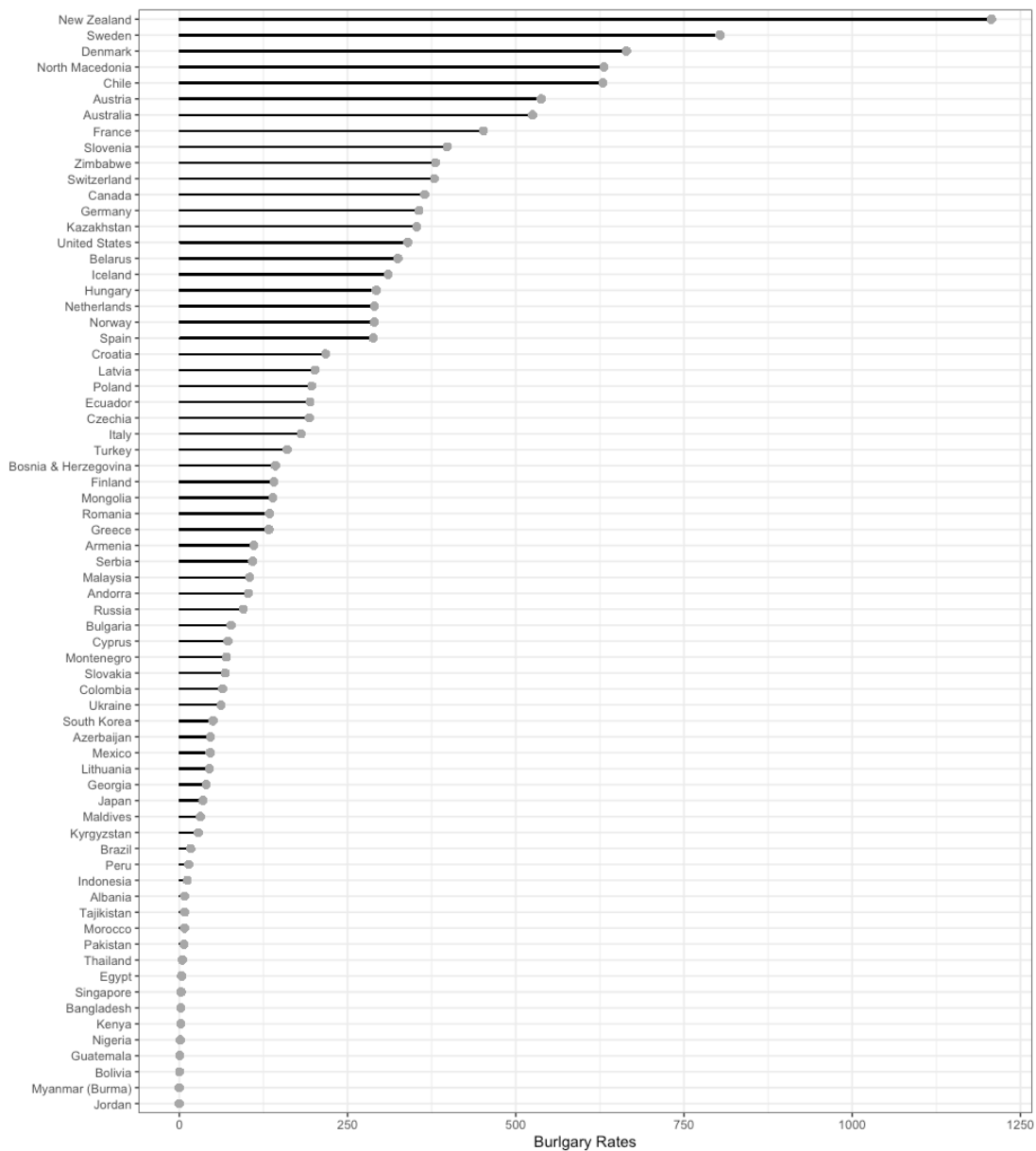Note. The figure reports the rate of fraud (per 100k people) across countries.

Table D

Multilevel Model Including the Cross-Level Interaction between Political Trust and Fraud Rates

	Moral Attitudes		
Predictors	*Estimates*	*CI*	*p*
Intercept	8.55	8.41 – 8.70	**<0.001**
Political Trust	0.07	0.01 – 0.13	**0.027**
Country-Level Political Trust	0.43	-0.09 – 0.96	0.106
HDI	4.34	1.15 – 7.53	**0.008**
Gender	0.14	0.12 – 0.16	**<0.001**
Age	0.02	0.01 – 0.02	**<0.001**
Education	0.04	0.03 – 0.04	**<0.001**
Income	0.00	-0.00 – 0.01	0.340
GDPpc	-0.07	-0.33 – 0.18	0.575
Voice	-0.11	-0.44 – 0.23	0.529
Stability	0.13	-0.25 – 0.51	0.510
Fraud Rates	-0.05	-0.18 – 0.09	0.517
Criminal Groups	0.02	-0.12 – 0.16	0.770
Political Trust* Criminal Groups	-0.07	-0.12 – -0.03	**0.001**
Political Trust*Fraud Rates	0.01	-0.04 – 0.07	0.617
Random Effects			
σ^2	2.32		
$\tau_{00 \ country}$	0.23		
$\tau_{11 \ country \ political \ trust}$	0.05		
$\rho_{01 \ country}$	-0.11		
ICC	0.10		
$N_{country}$	56		
Observations	93291		
Marginal R^2 / Conditional R^2	0.077 / 0.167		

Figure E

Rates of Burglaries across Countries

Note. The figure reports the rate of burglaries (per 100k people) across countries.
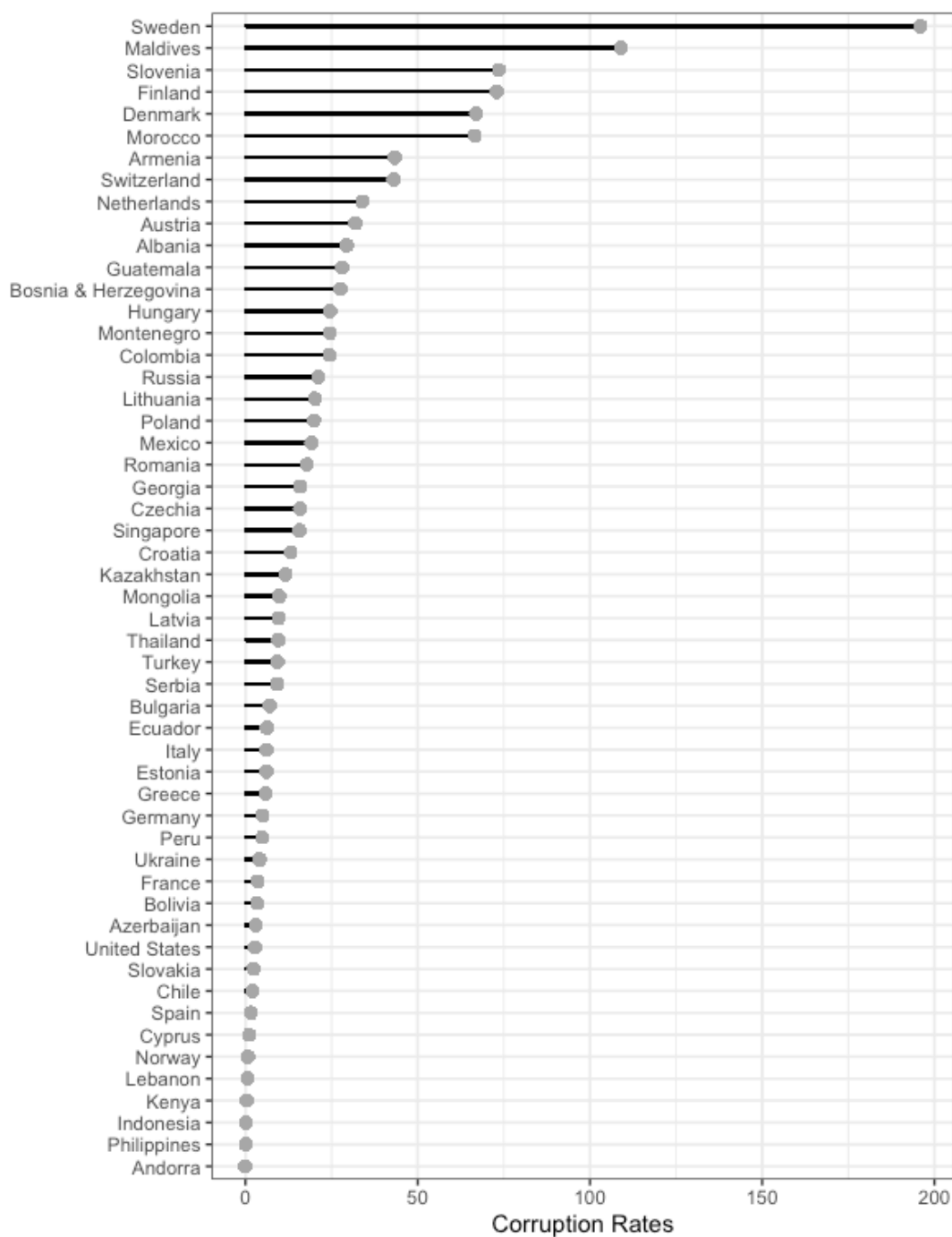
Table E

Multilevel Model Including the Cross-Level Interaction between Political Trust and Burglaries Rates

Predictors	Moral Attitudes		
	Estimates	*CI*	*p*
Intercept	8.64	8.50 – 8.78	**<0.001**
Political Trust	0.08	0.03 – 0.13	**0.002**
Country-Level Political Trust	0.01	-0.49 – 0.51	0.967
HDI	-0.95	-3.63 – 1.73	0.487
Gender	0.12	0.10 – 0.14	**<0.001**
Age	0.01	0.01 – 0.01	**<0.001**
Education	0.04	0.03 – 0.04	**<0.001**
Income	0.00	-0.00 – 0.00	0.892
GDPpc	0.20	-0.07 – 0.47	0.139
Voice	0.04	-0.27 – 0.35	0.810
Stability	0.02	-0.36 – 0.40	0.921
Burlgary Rates	-0.00	-0.15 – 0.15	0.964
Criminal Groups	-0.09	-0.23 – 0.06	0.231
Political Trust*Criminal Groups	-0.04	-0.09 – -0.00	**0.036**
Political Trust*Burglary Rates	0.04	-0.01 – 0.09	0.145
Random Effects			
σ^2	2.34		
$\tau_{00 \ country}$	0.32		
$\tau_{11 \ country \ political \ trust}$	0.04		
$\rho_{01 \ country}$	0.02		
ICC	0.13		
$N_{country}$	69		
Observations	110045		
Marginal R^2 / Conditional R^2	0.047 / 0.167		

Figure F

Rates of Corruption across Countries

Note. The figure reports the rate of corruption (per 100k people) across countries.

Table F

Multilevel Model Including the Cross-Level Interaction between Political Trust and Corruption Rates

Predictors	Moral Attitudes		
	Estimates	CI	p
Intercept	8.42	8.25 – 8.59	**<0.001**
Political Trust	0.07	0.00 – 0.13	**0.048**
Country-Level Political Trust	-0.25	-0.78 – 0.28	0.349
HDI	5.45	1.97 – 8.92	**0.002**
Gender	0.12	0.10 – 0.14	**<0.001**
Age	0.01	0.01 – 0.01	**<0.001**
Education	0.03	0.03 – 0.04	**<0.001**
Income	0.01	0.00 – 0.01	**0.038**
GDP	-0.02	-0.31 – 0.27	0.880
Voice	-0.20	-0.54 – 0.14	0.248
Stability	0.17	-0.22 – 0.56	0.395
Corruption Rates	0.09	-0.04 – 0.23	0.175
Influence of Criminal Groups	-0.04	-0.18 – 0.10	0.582
Political Trust*Influence of Criminal Groups	-0.08	-0.12 – -0.03	**0.002**
Political Trust*Corruption Rates	-0.00	-0.07 – 0.06	0.905

Random Effects

σ^2	2.35		
$\tau_{00 \ country}$	0.29		
$\tau_{11 \ country.political\_trust}$	0.05		
$\rho_{01 \ country}$	-0.16		
ICC	0.12		
$N_{country}$	53		
Observations	86840		
Marginal R^2 / Conditional R^2	0.094 / 0.200		

Analyses of GI-TOC Index Subcomponents

To examine the moderating effects of different types of organized criminal groups, we reanalysed the data employing each of the four subcomponents of the "Influence of Criminal Groups" GI-TOC indicator, namely *Mafia-style Actors, State-embedded Actors*, *Criminal Networks* and *Foreign Actors* (see the main article for a description; cf. also Methodology, n.d.). Moreover, we modelled the effects of all four subcomponents simultaneously. Results from these models are reported in Tables G-M below.

The cross-level interaction described in the main article was replicated with each subcomponent except for the Criminal Networks one. Criminal Networks are characterised by lower territorial control than other organized criminal groups included in the GI-TOC indicator. Thus, these groups are less likely to displace the state and exert governance over communities. Interestingly, in the model including all sub-components, only the interactions between political trust and the *Mafia-style Actors* and *Foreign Actors* subcomponents remained significant. This latter finding suggests that the effect of the cross-level interaction between Criminal Groups' influence and political trust may be mainly driven by the influence in a territory of alternative and illegal systems of power that are simultaneously distinct from the state and can be recognised by people (owing to features such as a clear structure, a hierarchy and a known name).

Table G

Model with Mafia-style Actors

Predictors	Moral Attitudes		
	Estimates	*CI*	*p*
Intercept	8.62	8.49 – 8.75	<0.001
Political Trust	0.06	0.01 – 0.11	0.027
Country-Level Political Trust	-0.12	-0.52 – 0.29	0.571
HDI	-0.68	-3.07 – 1.72	0.581
Gender	0.06	0.05 – 0.07	<0.001
Age	0.01	0.01 – 0.01	<0.001
Education	0.04	0.04 – 0.05	<0.001
Income	-0.00	-0.01 – 0.00	0.103
GDP	0.31	0.07 – 0.56	0.012
Voice	0.01	-0.25 – 0.28	0.936
Stability	-0.05	-0.35 – 0.24	0.733
Mafia-style Actors	-0.07	-0.14 – -0.00	0.041
Political Trust*Mafia-style Actors	-0.05	-0.07 – -0.02	<0.001

Random Effects			
σ^2	2.37		
$\tau_{00 \; country}$	0.35		
$\tau_{11 \; country.political\_trust}$	0.05		
$\rho_{01 \; country}$	0.06		
ICC	0.13		
$N_{\; country}$	83		
Observations	128839		
Marginal R^2 / Conditional R^2	0.049 / 0.177		

Table H

Model with State-embedded Actors

Predictors	Moral Attitudes		
	Estimates	*CI*	*p*
Intercept	8.62	8.49 – 8.75	<0.001
Political Trust	0.06	0.01 – 0.11	0.030
Country-Level Political Trust	-0.21	-0.62 – 0.20	0.308
HDI	-0.57	-3.02 – 1.87	0.646
Gender	0.06	0.05 – 0.07	<0.001
Age	0.01	0.01 – 0.01	<0.001
Education	0.04	0.04 – 0.05	<0.001
Income	-0.00	-0.01 – 0.00	0.095
GDP	0.21	-0.05 – 0.47	0.111
Voice	-0.09	-0.38 – 0.19	0.523
Stability	-0.02	-0.31 – 0.26	0.866
State-embedded Actors	-0.10	-0.20 – -0.00	0.045
Political Trust*State-embedded Actors	-0.03	-0.05 – -0.01	0.003
Random Effects			
σ^2	2.37		
$\tau_{00 \ country}$	0.36		
$\tau_{11 \ country.political\_trust}$	0.05		
$\rho_{01 \ country}$	0.14		
ICC	0.14		
$N_{\ country}$	83		
Observations	128839		
Marginal R^2 / Conditional R^2	0.051 / 0.180		

Table I

Model with Criminal Networks

Predictors	Moral Attitudes		
	Estimates	*CI*	*p*
Intercept	8.62	8.49 – 8.75	<0.001
Political Trust	0.06	0.00 – 0.11	0.036
Country-Level Political Trust	-0.15	-0.56 – 0.26	0.472
HDI	-1.14	-3.56 – 1.27	0.354
Gender	0.06	0.05 – 0.07	<0.001
Age	0.01	0.01 – 0.01	<0.001
Education	0.04	0.04 – 0.05	<0.001
Income	-0.00	-0.01 – 0.00	0.099
GDP	0.29	0.04 – 0.54	0.021
Voice	0.01	-0.26 – 0.28	0.929
Stability	0.04	-0.26 – 0.33	0.802
Criminal Networks	-0.02	-0.13 – 0.08	0.675
Political Trust*Criminal Networks	-0.03	-0.07 – 0.00	0.055

Random Effects

σ^2	2.37		
$\tau_{00 \text{ country}}$	0.37		
$\tau_{11 \text{ country.political\_trust}}$	0.05		
$\rho_{01 \text{ country}}$	0.14		
ICC	0.14		
N $_{\text{country}}$	83		
Observations	128839		
Marginal R^2 / Conditional R^2	0.042 / 0.177		

Table L

Model with Foreign Actors

Predictors	Moral Attitudes		
	Estimates	*CI*	*p*
Intercept	8.62	8.49 – 8.75	<0.001
Political Trust	0.06	0.00 – 0.11	0.032
Country-Level Political Trust	-0.14	-0.53 – 0.26	0.499
HDI	-1.16	-3.50 – 1.17	0.329
Gender	0.06	0.05 – 0.07	<0.001
Age	0.01	0.01 – 0.01	<0.001
Education	0.04	0.04 – 0.05	<0.001
Income	-0.00	-0.01 – 0.00	0.099
GDP	0.34	0.09 – 0.58	0.006
Voice	0.03	-0.23 – 0.29	0.804
Stability	-0.01	-0.29 – 0.26	0.921
Foreign Actors	-0.12	-0.21 – -0.03	0.006
Political Trust*Foreign Actors	-0.05	-0.09 – -0.02	0.003
Random Effects			
σ^2	2.37		
$\tau_{00 \; country}$	0.34		
$\tau_{11 \; country.political\_trust}$	0.05		
$\rho_{01 \; country}$	0.06		
ICC	0.13		
$N_{\; country}$	83		
Observations	128839		
Marginal R^2 / Conditional R^2	0.052 / 0.176		

Table M

Model with all Subcomponents

Predictors	Moral Attitudes		
	Estimates	CI	p
Intercept	8.62	8.50 – 8.74	<0.001
Political Trust	0.06	0.01 – 0.10	0.020
Country-Level Political Trust	-0.13	-0.52 – 0.27	0.527
HDI	-0.35	-2.73 – 2.03	0.773
Gender	0.06	0.05 – 0.07	<0.001
Age	0.01	0.01 – 0.01	<0.001
Education	0.04	0.04 – 0.05	<0.001
Income	-0.00	-0.01 – 0.00	0.099
GDP	0.31	0.05 – 0.57	0.019
Voice	-0.04	-0.33 – 0.25	0.776
Stability	-0.08	-0.37 – 0.21	0.591
Foreign Actors	-0.11	-0.19 – -0.02	0.019
State-embedded Actors	-0.05	-0.16 – 0.06	0.360
Criminal Networks	0.07	-0.04 – 0.18	0.192
Mafia Actors	-0.06	-0.14 – 0.01	0.096
Political Trust*Foreign Actors	-0.04	-0.07 – -0.00	0.025
Political Trust*State-embedded Actors	-0.02	-0.05 – 0.00	0.080
Political Trust*Criminal Networks	0.02	-0.02 – 0.06	0.334
Political Trust*Mafia-style Actors	-0.04	-0.06 – -0.01	0.009

Random Effects

σ^2	2.37		
$\tau_{00\ country}$	0.32		
$\tau_{11\ country.political\_trust}$	0.04		
$\rho_{01\ country}$	-0.03		
ICC	0.12		
$N_{country}$	83		

Observations	128839
Marginal R^2 / Conditional R^2	0.061 / 0.178