Does decentralization of national police systems help or harm physical integrity protection?

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Abstract

Police forces are the primary providers of law enforcement and public security, and they are also the main violators of physical integrity rights. There is a growing literature on police reform but little attention has been paid to the implications of how national police systems are organized for human rights change. This papers asks: how does decentralization of national police systems influence physical integrity practices? There is no inherent reason that centralized police forces would be more or less abusive than decentralized ones. Rather, the structure of a police system may have implications for implementing police reform and improving accountability for police violations. Broadly, decentralization is seen as a way to improve accountability to a wider set of stakeholders because it moves political control closer to local communities, while centralization is regarded as a way to provide greater control by national authorities because it removes policing from local concerns and accountability. National authorities committed to human rights can use their greater control in centralized systems to more easily implement reforms. Decentralized systems may provide multiple accountability, but here reforms are difficult to implement due to the presence of veto players. This paper tests these competing perspectives with cross-national statistical analysis, and tentatively finds that centralized police systems violate physical integrity less than decentralized ones. Due to data limitations, new analyses covering more countries and years and examining other aspects of police systems are needed.

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1 Introduction

Scholars are increasingly interested in politics of policing as a mediating factor in human rights change. As the primary coercive arm of the state, the police are tasked with upholding law and order and public security, and they are also the most likely to violate physical integrity.[1] Physical integrity rights are a subset of civil rights, including the rights not to be tortured, extrajudicially killed, disappeared or politically imprisoned. Abuses are institutionally sticky; once states violate, they are likely to continue to do so.[2] Human rights change requires the reform of institutions, through vetting of state agents, refocusing the mission and capacity of law enforcement agencies, and strengthening their legal accountability. The goal is "democratic policing," which is characterized by responsiveness to the needs of citizens and state, and accountability for police behavior through multiple mechanisms.[3] Police bureaucracies often oppose reforms with much political support.[4]

While there is a growing literature on police reform, little attention has been paid to the implications of how national police systems are organized for human rights. The structure of police systems is historically contingent, going back to the formation of states, and rarely changes in most countries. Yet, sometimes political leaders restructure police systems with the goal of improving police effectiveness or accountability. This paper asks: how does decentralization of national police systems influence physical integrity practices?

While centralization due to totalitarianism or the involvement of military forces in policing functions has been associated with human rights violations, there is no inherent reason that centralized police forces would be more or less abusive than decentralized ones. Rather, the structure of a police system may have implications for implementing reform and improving accountability. Broadly, decentralization is seen as a way to improve accountability to a wider set of stakeholders because it moves political control closer to local communities, while centralization is regarded as a way to provide greater control by national authorities because it removes policing from local concerns and accountability. National authorities committed to human rights can use their greater control in centralized systems to implement reforms. Decentralized systems may provide multiple accountability, but here reforms are difficult to implement due to the presence of more veto players.

The remainder of this paper conceptualizes decentralization, discusses the competing theoretical claims, and conducts a preliminary cross-national statistical test. The conclusion discusses limitations of the analysis and outlines plans for future study.

2 Theory

A national police system is the complex of organizations empowered by the state as the public police holding "the monopoly of legal and legitimate violence" with respect to internal law

[1] Chevigny, 1995; Tanner, 2000: 119; Goldsmith, 2003; Neild, 2003: 277; Uildriks, 2009; Conrad, Haglund, and Moore, 2013: 208–209.

[2] Poe, Tate, and Keith, 1999; Hathaway, 2002; Hafner-Burton and Tsutsui, 2005; Neumayer, 2005.

[3] Stone and Ward, 2000: 15.

[4] Tanner, 2000; Frühling, Tulchin, and Golding, 2003; Pereira and Ungar, 2004; Fuentes, 2006; de Mesquita Neto, 2006; Eaton, 2008; Uildriks, 2009; Lessa, 2011; Ungar, 2011; Prado, Trebilcock, and Hartford, 2012; Hollar, 2013: 117–118.

enforcement, as opposed to external defense.[5] As such, the unit of analysis is a country rather than a police force. The present study is concerned with general-purpose (including criminal) police, which makes up most police personnel,[6] and is the most important in terms of contact with the citizenry because they have "full powers of access, arrest, and investigation."[7]

For the purpose of this study, decentralization of police systems is of a political rather than administrative or fiscal nature. Political decentralization consists of the transfer of decision-making power from the central government to a lower level of government, and it implies at least some autonomy and democracy.[8] By contrast, administrative decentralization is about the "hierarchical and functional transfer of managerial responsibility" to lower levels of administration and government units, and "fiscal decentralization concerns the transfer of authority for revenue generation, allocation, and expenditure."[9]

Political centralization is about the chain of command. Command refers to the person or institution to which the police unit is directly subordinate in operational, personnel and budgetary matters.[10] In a centralized system, lower-level government authorities do not have decision-making power over police forces.[11] In a decentralized system, police units are responsible to the head of local or regional government in operational and personnel matters, and the local government has fiscal control. Decentralization requires de jure independence of command in lower-level units.[12]

Bayley notes that the concept of decentralization in policy discussions can be misleading because analysts often do not distinguish between multiplicity of autonomous police forces (or number of commands) and distribution of command responsibilities within forces; these are conceptually distinct.[13] Decentralization is possible in one or the other, or both. Building on Bayley's typology, Lowatcharin and Stallmann distinguish between vertical and horizontal decentralization. Vertical decentralization, the focus of the present study, refers to multiple autonomous police forces that are provided and controlled by different levels of government. According to Bayley, police forces are autonomous if "they are created, supported, and directed by units of government that cannot be directed with respect to policing by other units of government."[14] In a completely centralized system, the national government controls all policing. In a decentralized system, "responsibility for law enforcement is shared by various levels of government with specific assignments of duties and defined coordination."[15]

It is important to be clear about what is not included here in the concept of decentralization. The second component of Bayley's typology, the distribution of command responsibilities, concerns horizontal decentralization, or the number of police agencies that are controlled

[5]Devroe and Ponsaers, 2017: 2.
[6]Bayley, 1992: 517–518.
[7]Lowatcharin and Stallmann, 2017.
[8]Lowatcharin and Stallmann, 2017: 34.
[9]Lowatcharin and Stallmann, 2017: 33.
[10]Sadykiewicz, 2004.
[11]Sadykiewicz, 2004; also Bayley, 1990: 54.
[12]Bayley, 1990: 54; also Devroe and Ponsaers, 2017: 27.
[13]Bayley, 1990: 53-54, 58; 1992: 521-522.
[14]Bayley, 1992: 511.
[15]Lowatcharin and Stallmann, 2017: 30.

by any given level of government. Others refer to this aspect as fragmentation[16] or concentration.[17] Horizontal decentralization can occur along geographic and/or functional lines. This is particularly the case at the highest level of government. For example, special-purpose police forces tend to be authorized by the national government.[18] Bayley's typology has a third component, coordination, which is only relevant in countries with multiple autonomous forces, and concerns overlapping jurisdictions. In coordinated systems, one police force has jurisdiction over any given area.[19] The measure of decentralization used in this study does not reflect horizontal decentralization or coordination. It is also important to note that the assistance commonly provided by national governments to subnational polices forces and coordination and standardization of operations should not be mistaken for centralization, as it does not affect the location of command authority.[20]

Police systems are historically contingent, usually based on political settlements achieved at the time countries were formed and rarely change subsequently.[21] According to experts, centralized national police systems are more common than decentralized ones,[22] although data for such claims are quite limited.[23] Decentralized systems without national police headquarters are typical of English-speaking countries.

Does the structure of police systems matter to human rights outcomes? While Bayley notes that his three aspects of police organization provide the framework that constrains police work,[24] he argues that "[n]either the number of autonomous forces nor the extent of command centralization/decentralization within forces has any effect on human rights and political freedom,"[25] but he does not present systematic evidence for this claim. In fact, Bayley is deeply suspicious of causal claims: "First, 'centralization/decentralization' are code words for reform used by practitioners and scholars regardless of what is actually going on. Second, changes in the location of command both functionally and geographically are often undertaken as part of reform even though they have no vital, or even clearly perceived, connection with new organizational objectives. [...] But this does not mean that such circumstances are causal in an empirical sense."[26] Others disagree. Fichtelberg claims that "the structure of police has direct consequences for their capacities as well as their role in a society" and "simple structural formations that can help make a police force more democratic."[27] Despite Bayley's call for systematic studies of the effects of different national police system on police performance, there are still few generalizable comparative studies.[28]

Centralized police systems have a bad reputation, by association rather than grounded in systematic comparative analyses. The most centralized systems were found in totalitarian

[16]Sadykiewicz, 2004.
[17]Devroe and Ponsaers, 2017: 25–27.
[18]Bayley, 1992: 517–518.
[19]Bayley, 1990: 57–58; Lowatcharin and Stallmann, 2017: 35.
[20]Bayley, 1990: 63–64.
[21]Bayley, 1990: 60; 1992: 509, 531.
[22]Bayley, 1990: 56; Sadykiewicz, 2004.
[23]Bayley's sample is 48 countries.
[24]Bayley, 1992: 510.
[25]Bayley, 1992: 539.
[26]Bayley, 1992: 537.
[27]Fichtelberg, 2013: 18.
[28]Bayley, 1992; Lowatcharin and Stallmann, 2017: 31, 35.

political regimes, along with all their dismal implications for freedoms and human rights.[29] Militarized police forces are also always centralized, and they tend to be more difficult to hold accountable for abuses than civilian police forces.[30] Generally, centralized police systems are associated with authoritarian political regimes and decentralized ones with democracies.[31] In fact, a centralized police system has long been held to be inconsistent with democratic government, because any large armed force is a threat to democratic institutions: "At the very least, a centralized police force tends to become too remote and too insensitive to the communities it serves."[32] But more dangerously, a centralized police force is too "easily turned into a pawn of the political forces that may seek to use it for their political ends and may likewise make it too easy to cover up police misconduct."[33]

Political decentralization is generally considered to contribute to a number of benefits, such as public participation, political stability, accountability, and responsiveness.[34] It is seen as a key way of bringing police forces closer to the communities they serve, which should contribute to a more peaceful and safer society.[35] The key is that decentralization makes policing accountable to multiple stakeholders, including those directly affected by policing.

Greater local accountability is a double-edged sword, however, as it may also make police forces more responsive to undue pressures from dominant local interest groups.[36] Further, subnational governments are important potential veto players, whose consent is needed to alter policing policy. More numerous veto players increase the difficulty of making and implementing new policies.[37] For these reasons, it is not clear that greater accountability due to decentralization would necessarily lead to better human rights practices.

Importantly, reforming an institution to protect human rights first requires controlling its operations. Scholars have long noted greater political control by the national government due to police centralization,[38] and that it may be useful in curtailing misuse of force, though others question its effectiveness.[39] While effective reform also requires the executive to be committed to human rights, executive control over the police increases the chances for successful implementation. Berkley also claims various other benefits of centralization for democratic values of equal and impartial treatment. For instance, he argues that larger organizations due to centralization tend to "standardize and formalize methods and procedures" and thereby "curtail the opportunities for arbitrary behavior on the part of its members."[40]

Given these arguments, the following hypotheses have opposite expectations regarding the role of (de)centralization:

[29]Berkley, 1970: 309; Sadykiewicz, 2004.
[30]Weber, 2001: 41.
[31]Bayley, 1992: 534.
[32]Berkley, 1970: 309.
[33]Fichtelberg, 2013: 18.
[34]Lowatcharin and Stallmann, 2017: 34.
[35]Weber, 2001: 40.
[36]Berkley, 1970: 310; Fichtelberg, 2013: 18.
[37]Tsebelis, 2002.
[38]Berkley, 1970: 311.
[39]Bayley, 1992: 541.
[40]Berkley, 1970: 310.

H1 Decentralized police systems have less physical integrity violations than centralized systems.

H2 Centralized police systems have less violations than decentralized systems.

The analysis needs to account for other factors influencing state physical integrity practives. The next section discusses the measurement of the dependent and independent variables.

3 Dataset and methods

3.1 Dependent variable

A key inferential issue in human rights research is measurement bias due to information effects and changing standards of human rights accountability.[41] On one hand, the quality and quantity of information on physical integrity violations has increased as monitoring agencies have multiplied and gathered more accurate information on more violations in more places. On the other hand, in continually pressing governments to reform, activists have tended to classify more and more acts as human rights violations. As a result, human rights reports have become increasingly stringent assessments of state behavior over time. Standard-based measures commonly used in scholarship that are coded from such reports reflect a "dynamic standard of accountability,"[42] and may not respond well to actual changes in the level or types of abuses.[43] This makes it difficult to infer human rights practices based on such measures because these indicators are biased toward finding worsening abuses.[44]

The outcome variable in the present study is Schnakenberg and Fariss' latent physical integrity (LPI) rights measure. This measure is the most sophisticated effort to date to address concerns about measurement bias in quantitative human rights data. It is derived from a measurement model designed to take into account changing standards accountability, by combining a range of standard-based and events measures of repression and state mass violence and incorporating over-time effects.[45] While it primarily addresses the dynamic standard of accountability, it is also useful in addressing concerns about information effects, as it combines information from eight different physical integrity measures, several of which are based on different source materials.

One drawback of the LPI measure for the purpose of this study is that it uses event-based indicators of extreme violations (such as large-scale mass killings) as a baseline for comparing levels of standards-based measures.[46] This means it may reflect large-scale abuses and atrocities more than routine abuses during law enforcement.[47] Nonetheless, this measure is useful for the analyses because it is a sophisticated effort to directly address concerns about

[41] Keck and Sikkink, 1998: 195; Clark and Sikkink, 2013: 175–77; Fariss, 2014.
[42] Fariss, 2014.
[43] Clark and Sikkink, 2013.
[44] Clark and Sikkink, 2013: 568.
[45] Schnakenberg and Fariss, 2014; Fariss, 2014.
[46] Fariss, 2014.
[47] Cingranelli and Filippov, 2018.

systematic measurement bias. Moreover, the extreme violence baseline of the measure may bias the analyses toward null findings regarding hypotheses about violations in the course of policing, which means using this measure makes it more difficult to find support for the hypotheses. Thus, any supportive findings would need to overcome this bias, and as a result, would provide stronger evidence.

3.2 Decentralization

I use the police decentralization index (PDI) developed by Lowatcharin and Stallmann. They note that there is considerable variation among countries within each of the components of Bayley's typology. Their typology focuses on vertical decentralization, and not fragmentation or horizontal decentralization at any given level of government. This measure is consistent with the theoretical assumption that (de)centralization matters due to the nature of political control of the police.

Lowatcharin and Stallmann conceptualize decentralization based on three criteria. First, to what extent is there regional or local self-government? The *vertical governmental structure* measures decentralization of general-purpose government. This component ranges from one to five tiers of government: national, regional, and up to three levels of local government. Second, how many tiers of government control the police? *Political control* measures the extent of political and administrative decentralization of policing: "A government has political and/or administrative control over the police if it is: (1) responsible for the administration, supervision, and/or evaluation of the police; or (2) responsible for recruiting and/or appointing police executives and/or officers."[48] Third, how many tiers of government pay for policing? *Fiscal control* measures the degree of fiscal decentralization.[49]

The source material for coding the PDI showed few differences between political and fiscal control, but it also did not provide sufficient information about common revenue transfers for policing from one tier to another.[50] Since the third component provides little additional variation, the PDI is based on the first two components and calculated as the number of government tiers which control police divided by the total numbers of government tiers. This means decentralization is measured relative to existing government structures. The resulting PDI is available for 72 countries and ranges from 0.25 to 1; the higher the index the more decentralized is the country's police system. This variable is time-invariant for most countries during the period of 2001-2012, for which the data are available.

3.3 Other independent variables

The analyses include several covariates to account for other factors influencing human rights practices. A key domestic institution for the protection of human rights is an independent judiciary, which is charged with enforcing individual rights in constitutional democracies.[51]

[48] Lowatcharin and Stallmann, 2017: 41.
[49] Lowatcharin and Stallmann, 2017: 42.
[50] Lowatcharin and Stallmann, 2017: 44.
[51] Larkins, 1996; Keith, 2012.

Many studies find that judicial independence[52] and effectiveness[53] are associated with better human rights protection, even in autocracies.[54]

Judicial independence requires judges to be free to make decisions based on their interpretation of the law and without political interference from the government in power.[55] Explanations for the importance of judicial independence to rights protection are "based on the assumption that an independent judiciary should be able to withstand incursions upon fundamental rights because (1) the courts' authority and institutional well-being are formally delineated and protected, (2) the courts have some ability to review the actions of other agencies of government, and (3) judges' jobs are constitutionally secured."[56] I use a measure of *lower courts independence* from the Varieties of Democracy dataset, because legal accountability for police abuses and enforcement of due process in criminal procedure should primarily be provided by lower-level courts. This latent measure is derived from a Bayesian item response theory measurement model that aggregates ordinal ratings by multiple subject-specific country experts and provides estimates of uncertainty due to disagreement and systematic measurement errors. The variable aggregates responses to the question: "When judges not on the high court are ruling in cases that are salient to the government, how often would you say that their decisions merely reflect government wishes regardless of their sincere view of the legal record?"[57] I expect judicial independence to be associated with decreased violations.

A categorical indicator of political regime type is coded based on the *polity2* and *regtrans* variables in the Polity IV dataset.[58] Its *polity2* variable aggregates component measures of competitiveness and openness of executive recruitment; competitiveness and regulation of political participation; and institutional constraints on executive power. Ranging from -10 to 10, it is commonly used to measure the level of autocratic and democratic institutions, with higher scores indicating more democracy. The category of new democracy is based on the *regtrans* variable, which indicates the extent of change in the *polity2* variable over three consecutive years: I code a regime as a new democracy when the *regtrans* variable for a given country-year indicates a *major* (change of six points or more) or *minor* (change of three to five points) democratic transition leading to a score of greater than six on the *polity2* variable, and for fifteen years thereafter, as long as there is no authoritarian reversion. When regimes are not new democracies according to this rule, they are coded as democracy when the *polity2* variable is greater than six, and as nondemocracy otherwise. This threshold is common in comparative politics and international relations research. The reference category in the analyses is non-democracy, and I expect democracies to violate physical integrity less than nondemocracies.

To account for national security threats as drivers of violations, I include two variables. As is common in quantitative studies of human rights, an indicator of internal (including

[52]Cross, 1999; Apodaca, 2004; Keith, Tate, and Poe, 2009; Keith, 2012; Mitchell, Ring, and Spellman, 2013; Hill and Jones, 2014; Crabtree and Fariss, 2015.

[53]Powell and Staton, 2009; Conrad and Ritter, 2013; Conrad, 2014.

[54]Conrad, 2014.

[55]Larkins, 1996; Keith, 2012; Ríos-Figueroa and Staton, 2014.

[56]Keith, 2012: 115.

[57]Coppedge et al., 2018: 153.

[58]Polity IV Project, 2016.

internationalized) armed conflict is coded from the UCDP/PRIO Armed Conflict Dataset; this variable distinguishes between low-level conflict (at least 25 battle-related deaths) and war (at least 1000 battle-related deaths)[59] I also include a count of terror events that occurred in a country in a given year, calculated from the Global Terrorism Database.[60] I expect that these variables will be associated with increased violations.

The natural log of real GDP per capita (in constant US dollars) controls for a country's level of national wealth. Population size, also logged, accounts for the greater opportunity to violate the rights of more people in larger populations. These data come from the World Development Indicators.[61] Finally, I include the GINI index,[62] because police violations of physical integrity may be related to socioeconomic inequality.[63] All covariates are lagged by one year to protect against reverse causality.

3.4 Dataset

The resulting dataset consists of 864 observations for 72 countries for the period 2001-2012.[64] Since all covariates are lagged by one year, the dependent variable covers the period 2002-2013. The sample of countries is determined by the availability of the police decentralization index, which mostly covers democracies and particular regions. Democracies and new democracies make up 64% and 18% of the country-year observations, respectively. Most observations are for countries in Western Europe (32%) and the Americas (30.5%), and other regions are not well represented (Eastern Europe and Central Asia, 12.5%; East and South Asia, 10%; Middle East and North Africa, 8.3%; Sub-Saharan Africa, 4%; and Oceania, 3%). Thus, the findings of this study should be considered as tentative. More extensive cross-national data on police systems are needed for stronger findings. In order to improve the research design in a future study, I am currently working on a dataset covering both more countries and a longer period of time.

I duplicate the dataset forty times, and consistent with the assumptions of the measurement models producing the LPI, lower courts independence and GINI measures, I use their estimated means and standard deviations to draw the values for these variables for each instance of the dataset from the normal distribution.[65] The statistical model is estimated for each dataset, and the resulting coefficients and standard errors are then aggregated to incorporate the additional uncertainty due to the measurement models.

[59] Themnér and Wallensteen, 2014.

[60] START, 2018.

[61] World Bank, 2018.

[62] Solt, 2016.

[63] Tanner, 2000.

[64] The countries included are (* means PDI changed during study period): Albania; Argentina; Australia; Austria; Azerbaijan; Bangladesh; Belarus; Belgium; Bolivia; Brazil; Bulgaria; Canada; Chile; Colombia; Costa Rica; Croatia; Czech Republic; Denmark; Dominican Republic; Ecuador; El Salvador; Estonia*; Finland; France; Georgia; Germany; Greece; Guatemala; Honduras; Hungary; India; Indonesia; Ireland; Israel; Italy; Jamaica; Japan; Jordan; Kazakhstan; Kenya; Latvia; Lithuania; Mauritius; Mexico; Moldova; Morocco; Netherlands; New Zealand; Nicaragua; Norway; Panama; Paraguay; Peru; Philippines; Poland; Portugal; Russian Federation; Slovenia; South Korea; Spain; Sweden; Switzerland*; Thailand; Trinidad and Tobago; Turkey; Uganda; Ukraine; United Kingdom; United States of America; Uruguay*; and Venezuela.

[65] Fariss, 2014; Crabtree and Fariss, 2015; Coppedge et al., 2018; Solt, 2016.

Table 1: Summary Statistics: 864 observations, 72 countries, 2001-2012

	min	max	mean	median	% missing
latent physical integrity (LPI)	-2.02	4.71	0.95	0.92	0.00
Lower courts independence	-2.21	3.50	1.15	1.24	1.40
Regime type					0.00
nondemocracy: 158					
new democracy: 153					
democracy: 553					
Internal armed conflict					0.00
none: 743					
conflict: 109					
war: 12					
Terror events	0	651	16.11	0	0.00
Population size	441525	1263065852	51103270.87	10402117	0.00
GDP per capita	419.34	111968.35	19888.87	9994.11	0.00
GINI	22.70	56.47	36.38	34.93	2.80
PDI	0.25	1	0.57	0.50	0.00
Police tiers	1	4	1.71	2	0.00

3.5 Methods

The country-year structure of the dataset entails dependence of observations within countries over time. Quantitative studies commonly rely on fixed effects models to control for potential unobserved (time-invariant) country heterogeneity. If covariates are correlated with such unit effects, a standard linear regression model can lead to poor fit and misleading estimates due to omitted variable bias. By estimating only within-unit effects, fixed effects models allow for dependence between the unobserved country effects and the observed covariates. However, fixed effects models have high sample dependence, meaning they are overly sensitive to random error in a given dataset, and estimates of within-unit effects may diverge from true effects, for instance when covariates vary little within units. In short, fixed effects models have increased variance of estimates due to the inclusion of a parameter for each unit. This is particularly a problem for this study because the key variable of interest is a rarely changing variable. Random or mixed effects models do not estimate parameters for units but assume that the unit effects are drawn from a modeled distribution. These models reduce the variance of estimates, and have other practical advantages, but they introduce bias under certain conditions. Thus, there is a bias-variance trade-off between fixed effects and random effects models. To avoid bias, random effects models rely on the strong assumption of no correlation between covariates and the unit effects. A recent study employing simulations has found, however, that "even in the presence of rather extreme violations of that assumption, the random-effects estimator can still be preferable to (or at least no worse than) the fixed-effects estimator," for estimating covariate effects in panel data.[66]

Importantly, random effects models allow for the inclusion of time-invariant or rarely changing variables, such as the PDI. Since the LPI measure is continuous, I specify a linear

[66]Clark and Linzer, 2015: 407.

model with random country intercepts to model the dependence of observations within countries. All covariates are lagged by one year to ensure that they are measured prior to the outcome variable, and I include the lagged dependent variable as a covariate in order to account for autocorrelation and the institutional stickiness of physical integrity violations.

4 Results

Table 2 shows the results of the random effects regression. As the LPI variable was reversed for the analysis, higher values mean increased violations. Thus, a negative coefficient for a covariate indicates a decrease in violations.

Table 2: Random effects model of latent physical integrity

Lagged dependent variable	**0.665 [0.100]**
Lower courts independence	**-0.056 [0.023]**
New democracy	**-0.182 [0.083]**
Democracy	**-0.216 [0.084]**
Internal conflict	**0.189 [0.089]**
Internal war	0.215 [0.165]
Terror events	0.034 [0.021]
Population size	**0.066 [0.029]**
GDP per capita	**-0.102 [0.050]**
GINI	**0.014 [0.005]**
PDI	**0.219 [0.097]**
Intercept	**-0.942 [0.442]**
n observations	828
n countries	71
years	2002-2013
random intercepts	country
log-likelihood	-380.85

estimates [standard errors]; significant at 0.05 alpha level in **bold**

Almost all the covariates confirm expectations and are statistically significant. The result for the lagged dependent variable shows that states are likely to violate physical integrity if they did so in the previous year. Judicial independence of lower courts is associated with improved physical integrity protection. Both new and established democracies have improved physical integrity, compared to the reference category of nondemocracies. Lower-level internal conflict is associated with increased violations, and so is war but the latter result is not statistically significant. Larger populations have more violations, while wealthier countries violate less. These findings confirm those of many previous quantitative human rights studies. While the coefficient for terror events has the expected sign, it is not statistically significant. Finally, income inequality measured by the GINI is associated with increased violations.

Turning to the variable of interest, the result for the police decentralization index provides support for H2 and against H1. Since higher values of the index indicate greater

decentralization, the positive coefficient shows that more decentralized police system are associated with more violations, or inversely, centralized systems have less physical integrity violations. Limitations of the research design and thus of this finding are discussed in the concluding section.

5 Conclusion

This paper has reviewed basic arguments about the role of decentralization and centralization of national police systems in physical integrity outcomes. The statistical model finds that decentralization is associated with increased violations. This is an interesting finding because it goes against received wisdom, but it needs further investigation.

The research design has several limitations. First, the data on police decentralization is limited to a small and relatively unrepresentative sample of countries. Second, the analysis examines only one aspect of decentralization, the location of command, and not other aspects such as fragmentation along geographic or functional lines, or jurisdictional overlap. The latter may have different effects. I am currently working on a new dataset to address these shortcomings.

Once these data limitations are addressed, the causal mechanisms need to be developed further. For instance, the assumptions of the centralization thesis need to be examined and tested. Is human rights improvement in centralized police systems linked to executive commitment to human rights? For this paper, I initially explored the role of constitutional and human rights treaty commitments, with null results, which may be due to the near universal commitments during the study period, thus not providing sufficient variation for analysis. In addition, such variables introduce additional inferential difficulties due to potential selection effects. Arguments about mediated impacts require investigation of the causal chain, not just aggregate effects.

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