State Capacity, Democracy, and Human Development

*The Significance of Conceptual Distinctions and Concept-consistent Measurement*

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Note:
This paper is very preliminary. Not all the robustness checks are made yet. We plan to check with other minimalist or electoral democracy measures. In addition, we consider modelling the dynamics (autoregressive modelling).

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Abstract

State capacity, *the state’s capacity to penetrate the society and implement policies*, is a widely used concept; and there appears to be many positive effects of state capacity, including positive effects on human development. However, we should only expect state capacity to have an effect, if the will to prioritize a certain phenomenon, e.g., human development, is in place. Existing studies indicate that democracy and state capacity are substitutes in creating economic and human development. Thus, the effect of state capacity is mainly present in highly authoritarian regimes, and the effect of being a democracy is largest in countries that lack state capacity.

Due to methodological weaknesses and incomplete theoretical arguments, we argue that we should doubt these findings. Instead, we expect a complementary relationship: Both the will and ability to enhance human development are crucial. The incentives, and thus, the will, to enhance human development are larger in democracies compared to autocracies; and state capacity captures the ability to implement policies.

Though most scholars agree on the overall definition, the subcomponents and measures of state capacity vary much across studies. Many of the subcomponents and measures are often inconsistent with the overall definition of state capacity. Frequently, the measures capture the *content* of the policy rather than the *capacity to implement* the policy. This implies that the existing results are not necessarily reliable. In addition, many scholars assume that corruption and partiality in the public administration undermine state capacity, which, we argue, is not necessarily the case. Following this, we argue for a conceptualization of state capacity that is independent of corruption and partiality. We suggest improved measures of state capacity to capture the phenomenon more accurately.

We employ these measures on country-level data from 1970-2010 to show that state capacity indeed has a positive effect on human development, and that democracy enhances this effect. Thus, state capacity and regime type are complements rather than substitutes.
Introduction

State capacity is a widely used concept that has been associated with a variety of positive effects (Knutsen, 2013; Hanson, 2015; Andersen et al., 2014b; Fortin, 2010; Fjelde & De Soysa, 2009; Deacon & Saha, 2005; Ward, Cao & Mukherjee, 2014). Most scholars agree that state capacity in a broad sense should be understood as the state’s ability to effectively implement policies (Mann, 2008; Hanson, 2015; Fortin, 2010; Andersen et al., 2014b).

Hence, from this definition we should also expect state capacity to have a positive effect on many phenomena, but only as long as there is a will to prioritize these phenomena. Scholars in the state capacity literature have largely omitted this condition. However, Jonathan Hanson (2015) and Carl Henrik Knutsen (2013) have investigated if state capacity and democracy (which can be viewed as a motivation-proxy) are complements or substitutes on the effect on human development and economic growth respectively. Surprisingly, they both found the two variables to be substitutes, which means that the effect of democracy is smaller when state capacity is high and vice versa. However, we have reasons to believe that these findings are not definitive.

Except for this theoretical caveat, there are conceptual and methodological problems in the state capacity literature. There is agreement about state capacity consisting of at least two dimensions: monopoly of violence and administrative capacity (Andersen et al., 2014a; Seeberg, 2014; Carbone & Memoli, 2015). However, from here the consensus stops. The more specific conceptualization, and hence measurement, varies from study to study. This makes it extremely difficult to compare results; and in addition, these more specific definitions and operationalizations of state capacity are not always consistent with the overall concept. Below, we outline two serious problems in the literature.

One problem is that many scholars assume (either implicitly or explicitly) that impartiality and absence of corruption in the state are included in state capacity (Bäck & Hadenius, 2008; Englehart, 2009; Charron & Lapuente, 2010; Fortin, 2010; Melville & Mironyuk, 2016). This often leads to the use of corruption and partiality measures, when trying to measure state capacity. Our concern is that impartiality and absence of corruption are not per se a part of the state’s ability to effectively implement policies. It might be a cause, but it is not a part of the concept. In addition, one can imagine situations where corruption have no effect – or even
a positive effect – on the ability to implement policies. Systematic and controlled corruption and partiality might tie the elites and the bureaucracy and enhance business-state cooperation (Johnston, 2008). In addition, some have argued that corruption may grease the wheels in inert and inefficient bureaucracies (Meôn & Sekkat, 2005; Aidt, 2003). In such cases, the state capacity is underestimated, when using the corruption and partiality measures. Countries will be ‘punished’, because they have a corrupt state apparatus, even though it does not affect their state capacity. On this basis, we recommend the use of a corruption and partiality neutral measure of state capacity to better capture the phenomenon.

The other problem is that the measurement of state capacity, in general, has been weak (Saylor, 2013; Hendrix, 2010). Many studies have used measures that do not capture the essence of state capacity. Instead, they capture a political decision, and not the capacity to implement them (Fjelde & De Soysa, 2009; Albertus & Menaldo, 2012; Andersen et al., 2014b; Cheibub, 1998; Englehart, 2009; Gizelis, 2009; Fortin, 2010; Ward, Cao & Mukherjee, 2014; Melville & Mironyuk, 2016). We present examples of these measures and argue that they are not worth using.

In addition to our conceptual and methodological contribution, we develop the conditional argument about the effect of state capacity and test is on human development. Thus, we investigate – with our more fine-grained conceptualization and measurement – the impact of state capacity interacted with regime type on human development. We find that the measurement makes a difference. Our results indicate that the effect of state capacity is conditioned by the will to enhance human development. In addition, administrative capacity seems more important than impartiality and absence of corruption.

First, we argue how we should understand state capacity, and why corruption should not be part of the concept. Afterwards, we develop our theoretical argument. Then, we review the possible measures of different aspects of state capacity in order to use the most appropriate ones. Thereafter, we present and discuss our models and results. The last section concludes.
What is state capacity?

Many studies have found positive effects of state capacity on a variety of macro phenomena as for example, economic growth (Knutsen, 2013), mortality rates (Hanson, 2015), regime stability (Andersen et al., 2014b), democratization (Fortin, 2010), civil war (Fjelde & De Soysa, 2009), collective goods provision (Deacon & Saha, 2005), human rights (Miller, 2015), and environmental investments (Ward, Cao & Mukherjee, 2014). However, this does not mean that these questions are settled, since many studies use different conceptualizations and operationalization of state capacity – often some that are inconsistent with the core of the concept.

Most scholars have based the definition of state capacity on Michael Mann’s (2008) definition of infrastructural power, which can be interpreted as an institutional ability to penetrate the society and implement policies. Despite the consensus about the definition, there are disputes about the subcomponents of the concept. In general, one can distinguish three dimensions in the literature: monopoly of violence, administrative capacity, and legitimacy (Andersen et al., 2014a; Carbone & Memoli, 2015). The use of the concept becomes even more diverse, when looking at the variety of conceptualizations and operationalizations of the subcomponents.

Especially the interpretation and measurement of administrative capacity vary a lot across studies. A particular problem is that some scholars apply corruption and partiality neutral measures (Fortin, 2010; Englehart, 2009; Bäck & Hadenius, 2008), and some do not (Hanson, 2015; Knutsen, 2013). As will be explained below, these phenomena are conceptually distinguished from, and might have different causes and effects than, administrative capacity. Following Sebastián Mazzuca (2010), such arguments should lead to the separation of these phenomena. Ryan Saylor (2013) criticizes the conceptual heterogeneity in the field and emphasizes the importance of accounting for the theoretical dimensions of the concept. Below, this is what we do.

Our conceptualization of state capacity

Following the literature, we base our conceptualization on Mann’s insight, and we define *state capacity as the state’s ability to penetrate the society and implement policies*. Two points should be noticed. First, this does not per se imply any specific working procedures or
organization. Thus, it does not per se imply uncrupt and impartial processing. Second, state capacity relates only to the implementation of policies and not to the content; hence, it implies no normative assumption about ‘good’ policies.

We decompose state capacity into two subcomponents: one that relates to monopoly of violence, and one that relates to administrative capacity. Monopoly of violence is the state’s control with its population and territory; hence, it refers to internal monopoly of violence. Administrative capacity is the effectiveness of the administration – how efficiently it implements policies. Below, we present three arguments for this decomposition.

First, we do not find it appropriate to view the potential third component, legitimacy as a component of state capacity. Instead, it can be a cause (it is difficult to implement policies, if the population obstructs implementation, which they might do, when the state lacks legitimacy) or an effect (performance legitimacy) of state capacity. Thus, note we do not require the monopoly of violence to be legitimate on contrary to others (e.g., Weber, 1947). Another reason for not including legitimacy is that it is exogenous to the state institutions.

Second, we should define administrative capacity independently from corruption and partiality. Corruption in broad sense includes bribery, embezzlement, and theft in higher and lower levels of the state administration. Many scholars have included corruption (and partiality) components in state capacity. An example is Jessica Fortin who bases her definition of state capacity on Mann (Fortin, 2010: 656), but includes absence of corruption in her state capacity measure arguing that it reduces the ability to implement policies (ibid: 664f). However, in her examples, she only refers to arbitrary and uncontrollable corruption, where individuals just siphon money off from the state. On contrary, Michael Johnston (2008) argues that in some cases, more controlled corruption can bind elite groups and the bureaucracy together and thereby actually increase efficiency. Similarly, some scholars have argued that bribery sometimes increases efficiency by ‘greasing the wheels’ in very inefficient and inert systems (Aidt, 2003; Meón & Sekkat, 2005). Thus, it is not certain that corruption in the state always reduces the ability to effectively implement policies. It is about the way policies are implemented and not the capacity. Hence, the incorporation of corruption as a part of administrative capacity is problematic. It might affect administrative capacity, but it is not a defining property. Administrative capacity should be understood as
the ability to effectively implement policies, no matter how it is done (Hanson, 2015: 306; Seeberg, 2014).

Third, we do not distinguish administrative from extractive capacity as some scholars do. Extractive capacity is narrowly understood as the capacity to extract resources form society, mainly taxes. In contrast, the broader concept of administrative capacity captures the capacity to accomplish broader tasks. We restrict the decomposition to monopoly of violence and administrative capacity, because they cover the content of extractive capacity, and the latter is not in itself of specific importance for state capacity. The resources can be extracted by administrative tax collection or tariffs, or by coercion, for example, expropriation.

**Theory**

State capacity and democracy as complements: will and ability

It is no surprise that state capacity appear to have positive effects on a variety of factors. As state capacity per definition is the ability of the state to implement policies, it should have a positive effect on anything that needs to be implemented, for example, on human development, which is the focus of this paper. However, this should be only be the case under the condition that human development is prioritized. Few scholars in the field have considered this.

Human development captures many different phenomena of development including standard of living, but not only material needs. Education, literacy, and knowledge are also included. The rationale for the impact of state capacity is straightforward. If there is a will to reduce human development, for example certain policies, the ability to implement the policies is needed to realize the intended outcome. State capacity is the ability to implement.

As indicated above, we expect the effect of state capacity to be conditioned by the will to create certain outcomes such as human development. Many scholars have argued that democracy has a positive impact on human development, because it creates incentives to increase the standard of living more broadly in the population compared to autocracies (e.g., Baum & Lake, 2001; Powell-Jackson et al., 2001; Mulligan, Gil and Sala-i-Martin, 2004; Touchton & Wampler, 2014; Hanson, 2015; Jensen & Skaaning, 2015; Miller, 2015;
Welander et al., 2015). The most prevalent theory – though in different variations – in the literature concerns the differences in constituency across democracies and autocracies. In democracies, the leaders’ power depend on the support from more and poorer people compared to autocratic leaders’ power. This constrains the democratic leaders. There are constraints on how much they can exploit the population. They have to distribute more resources to the population – also to the poorer part – compared to autocrats. In contrast, autocratic leaders’ power depends on a comparably smaller and richer fraction of the population. Thus, the leaders can extract more resources for their own use, and they only need to share the resources with the small and rich group of supporters. Hence, because democratic leaders are more constrained by the general population compared to autocratic leaders, democratic societies should be more equal and have higher levels of human development compared to autocratic societies (Melzer & Richard, 1981; Olson, 1993; Boix, 2003; Niskanen, 2003; Bueno de Mesquita et al., 2003; Acemoglu & Robinson, 2006). Since these arguments touches upon the size of the constituency and the electoral core of democracy, we apply a minimalist definition of democracy (Schumpeter, 1974 [1942]), which implies ex-ante uncertainty, ex-post irreversibility, and repeatability (Przeworski et al., 2000). Hence, it does not include a variety of rights and freedoms.

Existing studies indicate that democracy and state capacity are substitutes in creating economic and human development (Hanson, 2015; Knutsen, 2013). Thus, the effect of state capacity is mainly present in highly authoritarian regimes, and the effect of being a democracy is largest in countries that lack state capacity. Hanson argues that state capacity in itself should increase human development, and then there is nothing left for democracy to add. The bureaucracy provides knowledge of problems with human development in the same way as democracies do (albeit from the bottom-up channel) (Hanson, 2015: 312). In this way, the argument only touches on the ability to discover the problems. However, the ability to discover lacking human development and people suffering is probably not the reason why human development is lacking many places in the world. Instead, it might be due to lacking will to prioritize human development or lacking ability to implement human development policies. However, Hanson also have an argument that touches upon the motivation. He argues that due to performance legitimacy, autocrats may also prioritize human development, just as democracies do (ibid: 312). He might be right that autocrats are not against human development; however, due to the arguments presented above, we should still expect human development to be prioritized more in democracies due to the direct dependency on a larger
and poorer part of the population. Thus, we would still expect a difference in the effect of regime type across the two regime types.

The substitute argument does also imply that state capacity does not matter much in democracies. However, neither Hanson or Knutsen provides arguments for why democracy should have an effect (without state capacity), which is quite problematic for the substitute-argument.

Hence, we argue the opposite of Hanson (and Knutsen), namely that democracy and state capacity are complements rather than substitutes, because both will and ability are needed to enhance human development. We expect the incentives, and thus, the will, to enhance human development is larger in democracies compared to autocracies; and state capacity captures the ability to implement policies.

Below, we consider how the two different dimensions of state capacity affect human development, and compare these mechanisms to the ones for corruption and partiality. As for the overall concept, both subcomponents concerns the ability to increase human development. Thus, the mechanisms are conditioned by the presence of the priority to enhance human development.

Subcomponents of state capacity (and corruption)

We expect monopoly of violence to have a positive effect, because if there is war and violence in a society, it is ceteris paribus more challenging to make business and implement policies such and development policies. In addition, the people who suffers the most will probably be the ones living in the war zones, and hence, the people who are most difficult to reach.

Administrative capacity should have a positive effect on human development, because the effectiveness of the administration and public officials in general should make the implementation more efficient (Englehart, 2009; Hanson, 2015). An example is that a more effective administration would build hospitals easier and faster, and especially run them better and with less waste of funds. This would reduce the mortality rate through better and faster treatment (Hanson, 2015). Thus, in general, there should be a positive effect.
We expect corruption and partiality to have an overall negative effect. However, as mentioned above, we expect possible opposing effects depending on the type of corruption (and partiality). Generally, we expect corruption and partiality to lead to inefficient allocation of resources (Aidt, 2003), for example, investments in specific projects and licenses to private businesses. In contrast, some scholars have argued that sometimes corruption can grease the wheels and make sluggish bureaucracies more efficient (Aidt, 2003; Meón & Sekkat, 2005). In other instances, corruption and partiality can tie together elite interests, including the bureaucracy (Johnston, 2008). Because of the opposing mechanisms, we expect that the overall effect of corruption and partiality on human development is relatively smaller (reversed sign) compared to administrative capacity.

As mentioned above, we expect the effect of the subcomponents to be conditioned by regime type.

**Methods and data**

We investigate the impact of the two components of state capacity and corruption and partiality on human development from 1962-2009 across sovereign states in time-series cross-sectional analyses. We include all countries above one million inhabitants, but only some microstates are included. The long time span and the many countries included increase the generalizability of the results. In addition, the TSCS structure of the data allows us to use sophisticated techniques, which increase our ability to make causal claims.

**The dependent variable: human development**

Human development is measured by infant mortality rate, which is quite commonly used in the literature (Hanson, 2015; Powell-Jackson et al., 2011; Kudamatsu, 2012; Touchton & Wampler, 2014; Miller, 2015; Welander et al., 2015). Infant mortality rate is defined as number of infants who die before the age of one per thousand born. We use the World Bank’s World Development Indicators, which is composed of several measures from different sources (World Bank, 2016a). Because we expect a floor effect on infant mortality rate, this measure is log-transformed.
**The independent variables**

*Monopoly of violence* is often measured by military personnel or military expenditures per capita (Fjelde & De Soysa, 2009; Albertus & Menaldo, 2012; Andersen et al., 2014b). This is unfortunate, since there are several problems with these measures. There is a large risk that these indicators measure something very different from (internal) monopoly of violence, the capacity to control the state territory and population.

Military personnel only measures the share and not the quality of the personnel. In some places, the personnel might be efficient, while elsewhere it may be very inefficient and poorly trained. These differences are very important regarding capacity. As an example, Powell (2012) argues that a coup-proofing strategy is to make the military unnecessarily large and thereby reduce the efficiency.

Furthermore, military employment and military hardware can be used for cooptation and patronage (ibid), which do not necessarily increase the effectiveness, e.g., positions to family members and friends. This argument also applies as an objection to military expenditures as a measure of internal monopoly of violence. Furthermore, both measures include the military hardware and personnel that are not or cannot be used for securing internal monopoly of violence, e.g., foreign military bases, intercontinental missiles, and other hardware and personnel used for national defense, military interventions, or interstate wars (Andersen et al., 2014b). Another important objection to using the measures is that – especially in the most developed countries – it is mainly the police and not the military who is responsible for the internal monopoly of violence. However, the two measures only captures the military and not the police. Nevertheless, in many autocracies, the military still play a role. The use of this measure might explain, why David Andersen et al. (2014b) find a positive effect of coercive capacity for regime stability in autocracies, but not in democracies.

Despite these problems, scholars have frequently applied the measure, because good alternatives have been lacking. However, in January 2016 the Varieties of Democracy Project (V-Dem) released their new dataset, which is a good alternative measure. V-Dem contains expert evaluations of a variety of aspects of the regime and state across most countries in the world. The dataset covers yearly data from 1900 and onwards. The dataset offers two alternative measures of monopoly of violence: the percentage of the territory (control of territory) and the percentage of the population controlled by the state (control of population).
A caveat of this measure is that it does not cover the degree of control (full or partly control), but only the scope. The experts have evaluated the extent of control in scope, but the control does not have to be perfect (V-Dem, 2016). Hence, monopoly of violence in a certain area is estimated on the bases of a certain threshold (‘effective control’), and thus, it is evaluated dichotomously. This means that areas falling just below the threshold and areas completely out of control are coded alike. This is problematic, since such a difference will probably have an effect on human development.

Applying expert evaluations as data has been criticized, because there is a risk of biased assessments, problems with comparability across experts and countries, and problems with insufficient knowledge. However, V-Dem has tried to counter these potential problems by, for example, using five country experts to code each country independently, and by using inter-coder tests (Coppedge et al., 2015).

In spite of the potential problems discussed above, the V-Dem indicators are by far preferable to the measures applied in most literature measuring monopoly of violence. In order to get a single measure of monopoly of violence, we construct an index of the two indicators. Considering the definition of internal monopoly of violence, control of population and territory seem equally important, and accordingly we give them equal weight in the index. If both are strictly important, it would make sense to create a multiplicatory index. But to avoid punishing countries who do not control uninhabited areas, we create an additive index. In practice, it does probably not change the results, since the two measures are highly correlated (Pearson’s R = 0.84). The indexes is coded from 0 to 1, where 1 is 100 % control.

Administrative capacity is measured in many different ways in the literature. Because many scholars have included (absence of) corruption and partiality in their definition of administrative capacity, many measures includes corruption indicators. But even when disregarding these, there are several possible measures. Nevertheless, since administrative capacity is such a disputed concept and difficult to measure, many of the measures are problematic (Saylor, 2013; Hendrix, 2010).
Tax revenue per GDP and Jacek Kugler’s Relative Political Capacity\(^1\) are widely used proxies for the ability to extract taxes, and thus, administrative capacity (Cheibub, 1998; Englehart, 2009; Fjelde & De Soysa, 2009; Gizelis, 2009; Fortin, 2010; Andersen et al., 2014b; Ward, Cao & Mukherjee, 2014). Despite the wide use of the measures, they are potentially very problematic, since the measures depend on the tax rate, which is decided politically – and therefore it does not necessarily reflect differences in capacity. In fact, this seems to be a problem, since the United States and Canada have similar or even lower levels than most countries in Africa, despite the administrative capacity – including the extractive capacity – being higher in the US and Canada than in most African countries. In addition, Norway and South Africa have the same tax revenue per GDP in 2013, which again indicates that the measure is not a good proxy for administrative capacity (World Bank, 2016b).

Another proxy frequently used (Knutsen, 2013; Hanson, 2015) is Louis Putterman’s State Antiquity Index (Statehist) that measures if and how long time a supra-tribal polity have existed in a country from year 1-1950\(^2\). All countries are scored every half century in the period. The data is created in different versions varying from 0 to 50 on the relative weight of the years, where the weight for most influence in the latter years are 50 (Putterman, 2003). When using the measure as a proxy for administrative capacity and state capacity today, a very strong path dependency must be assumed – even when applying the highest weight. This seems implausible, even though administrative capacity is probably an inert variable (Fortin, 2010; Hanson & Sigman, 2013). In several countries, the administrative capacity has developed in opposite directions despite the same starting point (Edin, 2004; Hanson & Sigman, 2013; Knight, 2014). An additional critique is that Statehist does not measure administrative capacity as such, but instead the existence of a polity. These considerations indicate that Statehist is an ill-suited measure of administrative capacity.

Yet another widely used measure of administrative capacity is Bureaucratic Quality (BQ) from Political Risk Services (Bäck & Hadenius, 2008; Knutsen, 2013). It measures the institutional strength and quality of the state regarding independence of political change. It is the extent to which day-to-day tasks are managed by the state and do not change with a change of government. In addition, the measure attaches importance to established

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\(^1\) There exist several variants. We use Relative Political Extraction (RPE) based on GDP per capita.

\(^2\) Evaluation of three questions in each half century: “(a) existence of a government, (b) the proportion of the territory covered, and (c) whether it was indigenous or externally imposed”.
procedures\(^3\) of recruitment and training (PRS-Group, 2016). Hence, it captures the consistency and strength of the administrative apparatus, but impartiality and absence of corruption is not per se a part of the measure.

The World Bank’s measure of statistical capacity is another possible measure of administrative capacity. It is an index consisting of objective measures of the quality of public statistics across a variety of fields (World Bank, 2016a). The statistical capacity does not seem to be politically influenced, since any politician should be interested in statistics about the population and the country, since this is information to act on (either to control or to improve policies and implementation). Furthermore, the statistical capacity should reflect the administrative capacity – at least to some extent. A similar proxy is census frequency; but because of its very early loft effect (roughly one census per year), it is inferior to statistical capacity.

We conclude that the best available corruption and partiality neutral measures of administrative capacity are BQ and statistical capacity. However, the data is only available from 1984 and 2004 respectively. It would be more ideal to have longer time series. Jonathan Hanson & Rachel Sigman have created a state capacity index (HSI) with data from 1960 and onwards. The index is constructed by using factor analysis with 24 different proxies for state capacity, and hence, it is rather atheoretical. Nevertheless, Hanson & Sigman argue that the weighting and the scores of the indicators in the factor analysis indicate that their measure captures the administrative component of state capacity as a latent variable (Hanson & Sigman, 2013). The measure contains some of the variables discussed above – also some of the weaker measure. But we can still use the measure in our analyses if it correlates well with BQ and statistical capacity and less with the other indicators – including the corruption indicators.

One way to check this is by running a factor analysis (Fortin, 2010; Hanson & Sigman, 2013). But as we have relatively few data points on some of the data and a low degree of overlap across the variables, the factor analysis would only include very few observations. Instead, we run pairwise correlations (Fortin, 2010) (see Table 1).

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\(^3\) It is not explicit, if this implies meritocratic recruitment.
Table 1. Bivariate correlations between indicators of state capacity

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<td>(1.480)</td>
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<td>0.6099</td>
<td>0.4005</td>
<td>0.3530</td>
<td>0.7258</td>
<td>0.3821</td>
<td>0.1051</td>
<td>0.2233</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mil. exp.</td>
<td>0.5321</td>
<td>0.1061</td>
<td>0.3429</td>
<td>0.4345</td>
<td>0.2975</td>
<td>0.1459</td>
<td>0.1748</td>
<td>0.2165</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(6.351)</td>
<td>(6.658)</td>
<td>(490)</td>
<td>(2.906)</td>
<td>(1.349)</td>
<td>(5.782)</td>
<td>(7.126)</td>
<td>(7.848)</td>
<td>(7.848)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mil. pers.</td>
<td>0.3360</td>
<td>-0.0729</td>
<td>-0.0026</td>
<td>-0.0130</td>
<td>0.0581</td>
<td>0.0749</td>
<td>0.1264</td>
<td>-0.0033</td>
<td>0.2290</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MoV-idx.</td>
<td>0.4799</td>
<td>0.4534</td>
<td>0.4031</td>
<td>0.4437</td>
<td>0.2061</td>
<td>0.1063</td>
<td>0.1787</td>
<td>0.3708</td>
<td>0.1263</td>
<td>0.0828</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Pearson's r correlation coefficients. Country years in parenthesis.

First column shows that HSI has the highest correlation with BQ and statistical capacity (0.80 and 0.75), though the correlation with the corruption and partiality measure (see construction below) is somewhat high (0.61). However, we should also expect some correlation, since most western countries have high levels of administrative capacity and not much corruption. Based on these considerations, we consider HSI to be the best available measure of administrative capacity and use it in our analysis. HSI is coded with a mean of 0 and a standard deviation of 1 (Hanson & Sigman, 2013)\(^4\). Table 2 gives an overview of the countries scoring highest and lowest on HSI in 2009. The content in the table is not surprising, and thus, it provides some face validity to the HSI measure as a proxy for administrative capacity.

\(^4\) From the original dataset.
Table 2. Bottom 10 and Top 10. HSI in 2009.

<table>
<thead>
<tr>
<th>Country</th>
<th>HSI</th>
<th>Country</th>
<th>HSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somalia</td>
<td>-3.09</td>
<td>Denmark</td>
<td>2.35</td>
</tr>
<tr>
<td>Central African Republic</td>
<td>-1.88</td>
<td>New Zealand</td>
<td>2.34</td>
</tr>
<tr>
<td>Chad</td>
<td>-1.87</td>
<td>Norway</td>
<td>2.24</td>
</tr>
<tr>
<td>Haiti</td>
<td>-1.87</td>
<td>Switzerland</td>
<td>2.12</td>
</tr>
<tr>
<td>Sudan</td>
<td>-1.83</td>
<td>Australia</td>
<td>2.09</td>
</tr>
<tr>
<td>Iraq</td>
<td>-1.81</td>
<td>Finland</td>
<td>1.99</td>
</tr>
<tr>
<td>Comoros</td>
<td>-1.76</td>
<td>Netherlands</td>
<td>1.89</td>
</tr>
<tr>
<td>Liberia</td>
<td>-1.70</td>
<td>Sweden</td>
<td>1.86</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>-1.66</td>
<td>Chile</td>
<td>1.82</td>
</tr>
<tr>
<td>Congo (Brazzaville)</td>
<td>-1.65</td>
<td>Ireland</td>
<td>1.81</td>
</tr>
</tbody>
</table>

Corruption and partiality

Many scholars have used corruption and partiality measures as indicators of state capacity or administrative capacity, especially when the concept has been conflated with the concept of good governance. More specifically, Transparency International’s Corruption Perception Index (CPI) and the World Bank’s Worldwide Governance Indicators have been widely used as measures (Englehart, 2009; Fortin, 2010; Melville & Mironyuk, 2016). But a problem with the use of these measures in our analysis is that there is no data before 1995. Instead, we apply five indicators from V-Dem: four indicators of administrative corruption, bribery, and embezzlement, and one indicator of partiality. We choose the former four to be able to cover different aspects of corruption in the administrative apparatus and to increase reliability ($\alpha = 0.94$). Two indicators cover the public sector in general (“Public sector corrupt exchanges” and “Public sector theft”), and two cover the executive and its agents (“Executive bribery and corrupt exchanges” and “Executive embezzlement and theft”) (V-Dem, 2016). The two latter also include ministers, and thus, politicians and not only administrative staff. But we choose to include them anyway, because administrative staff in the top of the hierarchy is the main part of the measure, and hence, we capture the level of corruption at the highest administrative level. V-Dem offers only one measure of partiality in the state that does not include rule of law or judicial partiality (“Rigorous and impartial public administration”) (V-Dem, 2016).
We view corruption, bribery, and embezzlement as different from partiality, and thus, we have two dimensions. These are weighted equally, since we have no reason not to (the four corruption indicators have the weight 1/8, and the partiality indicator is weighted 1/2). The index is coded from 0 to 1, and high values indicate low levels of corruption and partiality.

**Regime type**

We measure regime type with Barbara Geddes et al.’s (2014) data, where regime type is measured dichotomously. Democracy is coded 0 and autocracy 1. The measure fits our definition of democracy, since it is minimalistic. A country is coded a democracy if the regime won power in a relatively fair and contested election where the suffrage was at least 10% of the population. This implies that the military did not prevent anyone from running in the election. In addition, the formal and informal rules after the election had to be compatible with these election procedures (ibid).

**Controls**

All our models are country (and year) fixed effects models, and therefore, we automatically control for country specific time invariant confounders such as colonial heritage, and ethnic fragmentation (almost time invariant). In addition, we control for time trends in the variables with this model. In addition, we have controlled for time variant potential confounders inspired by earlier studies in the field (e.g., Hanson, 2015).

*Economic development* might lead to increases in state capacity and reductions in infant mortality rate (Hanson, 2015), hence, we control for this. Our proxy is GDP (fixed prices) per capita (World Bank, 2016a).

It is not clear why *economic crises and upturns* should have an effect except for the effect captured by economic development. However, Hanson (2015) finds an effect on human development, why we control for economic fluctuations. An effect seems most likely from a couple of years with economic crisis or upturn, why we use three-year running averages of growth in GDP per capita (World Bank, 2016a).

---

5 The measure also contains a residual category. We include it to avoid losing of data, but we do not report it.
*Population size* might have an effect on both state capacity, regime type, and human development. The larger the population, the more difficult it is to create or sustain high state capacity. In addition, a large population might reduce identification and solidarity across the population, which might reduce incentives to enhance human development. *Urbanization* might have similar effects. The more urbanization, the closer people live together, the higher state capacity. Urbanization is measured as the share of the population living in urban areas.\(^6\) Data on population size and urbanization are from the World Development Indicators (World Bank, 2016a).

In addition, we control for *natural resources*. According to the rentier-state literature, easy access to natural resources avert the incentives for state building and creating state capacity (Tilly, 1985; Ross, 2001; Krasner, 2005). In addition, it might affect human development negatively (Robinson et al., 2006; Andersen & Aslaksen, 2013). Scholars in the rentier-state literature view oil as the most important natural resource (Andersen & Aslaksen, 2013; Ross, 2015). In addition, data on oil is more extensive than data on other natural resources. Based on this, we use Haber & Menaldo’s ‘real value of oil production per capita’ from their dataset from 2011 (Haber & Menaldo, 2011).

Furthermore, it is relevant to control for war – both *intra- and interstate war* – because of the likely effect on both state capacity and human development (Andersen et al., 2014b). However, in the models with monopoly of violence as the explanatory variable, it might not be prudent to control for intrastate war, because it is likely to be an effect of a weak monopoly of violence (though it could also be a cause). We control for the two types of war with PRIO’s data (Peace Research Institute Oslo, 2016). However, the data covers relatively few countries, why the number of observations decreases drastically, when the control is included. Therefore, we excludes these controls in our main analyses. This does not seem to be a problem as our robustness checks indicate that none of the war types has a statistically significant impact on infant mortality rate; nor does the inclusion change the other results.

Table 3 below shows descriptive statistics of the variables in our main analyses.

\(^6\) The areas are determined by national standards.
Table 3. Descriptive statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Average</th>
<th>Min.</th>
<th>Maks.</th>
<th>Std. dev.</th>
<th>Country years</th>
<th>Countries</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant mortality rate</td>
<td>59.75</td>
<td>1.60</td>
<td>269.50</td>
<td>48.91</td>
<td>7643</td>
<td>164</td>
<td>1960-2013</td>
</tr>
<tr>
<td>Monopoly of violence</td>
<td>0.90</td>
<td>0.325</td>
<td>1.00</td>
<td>0.11</td>
<td>8457</td>
<td>169</td>
<td>1960-2015</td>
</tr>
<tr>
<td>Adm. capacity</td>
<td>-0.03</td>
<td>-3.51</td>
<td>2.63</td>
<td>0.98</td>
<td>6680</td>
<td>158</td>
<td>1960-2009</td>
</tr>
<tr>
<td>Corruption + partiality</td>
<td>0.52</td>
<td>0.00</td>
<td>1.00</td>
<td>0.27</td>
<td>8414</td>
<td>169</td>
<td>1960-2015</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>7110.59</td>
<td>69.58</td>
<td>69094.75</td>
<td>11504.49</td>
<td>6591</td>
<td>160</td>
<td>1960-2014</td>
</tr>
<tr>
<td>Growth GDP per capita</td>
<td>3.88</td>
<td>-64.05</td>
<td>106.28</td>
<td>6.19</td>
<td>6588</td>
<td>163</td>
<td>1961-2014</td>
</tr>
<tr>
<td>Regime type</td>
<td>0.62</td>
<td>0.00</td>
<td>2.00</td>
<td>0.53</td>
<td>6509</td>
<td>147</td>
<td>1960-2010</td>
</tr>
<tr>
<td>Oil production</td>
<td>398.21</td>
<td>0.00</td>
<td>78588.80</td>
<td>2576.52</td>
<td>6360</td>
<td>157</td>
<td>1960-2006</td>
</tr>
<tr>
<td>Population</td>
<td>3.43e+07</td>
<td>6.07e+04</td>
<td>1.36e+09</td>
<td>1.21e+08</td>
<td>7534</td>
<td>164</td>
<td>1960-2014</td>
</tr>
<tr>
<td>Urbanization</td>
<td>47.09</td>
<td>2.19</td>
<td>99.16</td>
<td>23.68</td>
<td>7534</td>
<td>164</td>
<td>1960-2014</td>
</tr>
</tbody>
</table>

Estimation and model specification

We use linear regression with country-clustered standard errors. We use country- and time-fixed effects. All the independent variables are lagged three years, because we expect it to take time for policies to be made and implemented, and thus, affect infant mortality rate. In addition, from the appearance of the first effects, a year has to pass before the full impact is reached, because the infant mortality rate includes infants less than one years old. We run robustness checks with 5-years lags.

In many TSCS analyses, a lagged dependent variable is included to counter problems with serial autocorrelation and country-fixed effects (Hanson, 2015; Touchton & Wampler, 2014; Englehart, 2009). However, when using fixed-effects models, this creates a Nickell bias, because it violates the moment condition of the fixed-effects model (Nickell, 1981; Angrist & Pischke, 2009: 243ff). But the country-fixed-effects model takes country-fixed effects into account, so only potential problems with autocorrelation are left, which might reduce efficiency. But as the inclusion of the lagged dependent variable might create bias, we do not include the lagged dependent variable.
Results

We discuss our findings concerning our three independent variables, and then we compare the impact of the three.

Table 4. State capacity and infant mortality in 1964-2009, fixed-effects linear regression.

<table>
<thead>
<tr>
<th>Model</th>
<th>Monopoly of violence</th>
<th>MoV x autocracy</th>
<th>Adm. capacity</th>
<th>Adm. capacity x autocracy</th>
<th>Corruption + partiality</th>
<th>Corr./partial. x autocracy</th>
<th>Autocracy</th>
<th>Growth (3-year average)</th>
<th>Oil income per capita</th>
<th>GDP per capita</th>
<th>Population</th>
<th>Urbanization</th>
<th>Constant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-0.184</td>
<td>0.742</td>
<td>-0.181***</td>
<td>0.135***</td>
<td>-0.262*</td>
<td>0.210</td>
<td>0.0704</td>
<td>-0.00178</td>
<td>3.17e-05***</td>
<td>-2.51e-05***</td>
<td>-1.40e-10</td>
<td>-0.00268</td>
<td>4.741***</td>
</tr>
<tr>
<td></td>
<td>(0.285)</td>
<td></td>
<td>(0.377)</td>
<td>(0.0339)</td>
<td>(0.107)</td>
<td>(0.215)</td>
<td>(0.0398)</td>
<td>(0.00177)</td>
<td>(6.67e-06)</td>
<td>(5.52e-06)</td>
<td>(2.69e-10)</td>
<td>(0.00568)</td>
<td>(0.331)</td>
</tr>
<tr>
<td>2</td>
<td>-0.756</td>
<td>0.706</td>
<td>-0.756</td>
<td>0.135</td>
<td>-0.398*</td>
<td>0.170</td>
<td>-0.601</td>
<td>-0.00202</td>
<td>3.12e-05***</td>
<td>-2.43e-05***</td>
<td>-1.14e-10</td>
<td>-0.00218</td>
<td>5.254***</td>
</tr>
<tr>
<td></td>
<td>(0.490)</td>
<td></td>
<td>(0.490)</td>
<td>(0.0354)</td>
<td>(0.170)</td>
<td>(0.210)</td>
<td>(0.326)</td>
<td>(0.00156)</td>
<td>(6.28e-06)</td>
<td>(5.31e-06)</td>
<td>(2.66e-10)</td>
<td>(0.00554)</td>
<td>(0.495)</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>-0.255</td>
<td>0.255</td>
<td>-0.114*</td>
<td>0.0864</td>
<td>0.0544</td>
<td>-0.000755</td>
<td>3.03e-05***</td>
<td>-1.89e-05***</td>
<td>-9.13e-11</td>
<td>-0.00014</td>
<td>4.358***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.0398)</td>
<td>(0.0388)</td>
<td>(0.0864)</td>
<td>(0.215)</td>
<td>(0.0398)</td>
<td>(0.00150)</td>
<td>(5.91e-06)</td>
<td>(4.75e-06)</td>
<td>(-9.13e-10)</td>
<td>(0.00150)</td>
<td>(0.214)</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.0933*</td>
<td>-0.00114</td>
<td>2.73e-05***</td>
<td>-1.48e-05***</td>
<td>-4.51e-11</td>
<td>-0.00114</td>
<td>4.358***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.0266</td>
<td>-0.00211</td>
<td>3.10e-05***</td>
<td>-2.40e-05***</td>
<td>-1.17e-10</td>
<td>-0.00211</td>
<td>4.736***</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td>-0.262</td>
<td>0.262</td>
<td>-0.0674</td>
<td>0.210</td>
<td>0.0266</td>
<td>-0.00211</td>
<td>3.06e-05***</td>
<td>-2.35e-05***</td>
<td>-1.61e-10</td>
<td>-0.00213</td>
<td>4.801***</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>(0.107)</td>
<td>0.0674</td>
<td>-0.00211</td>
<td>(6.01e-06)</td>
<td>(5.14e-06)</td>
<td>(2.32e-10)</td>
<td>(0.00532)</td>
<td>(0.226)</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.398*</td>
<td>-0.00211</td>
<td>3.06e-05***</td>
<td>-2.35e-05***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.170)</td>
<td>-0.398*</td>
<td>(0.210)</td>
<td>(6.01e-06)</td>
<td>(5.14e-06)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: *, **, ***: P < 0.05; P < 0.01; P < 0.001. Unstandardized regressions coefficients with country clustered standard errors in parenthesis. The dependent variable is log-transformed. All independent variables are lagged three years. Democracy is the reference category in all models. Furthermore, this variable includes a residual category (e.g., warlord regimes) for which the output is not reported.
**Monopoly of violence**

Table 4 shows the effects of the two subcomponents of state capacity and corruption and partiality on human development. Model 1 shows the relationship between monopoly of violence and infant mortality rate. Surprisingly, there seems to be no statistically significant effect of monopoly of violence on infant mortality rate (nor in the interaction model, Model 2). However, it seems very likely that monopoly of violence in any area is necessary for successful development policies and human development in the area. For example, access to clean water and vaccines, and well-functioning hospitals would seem to require monopoly of violence in the area. In addition, lack of monopoly of violence decreases the physical security.

Despite our results, these expectations might still be true. Monopoly of violence may be a necessary condition for human development, but not sufficient. In addition, the spread on monopoly of violence is rather small. The 10th percentile is 0.78, the median 0.93 on a scale from 0-1. Furthermore, since we use fixed-effect models, we only look at the within variation – the variation across time within each country. This variation is very small, as the standard deviation is 4% of the range, which may cause the large standard errors, and thus, the insignificant results (Wooldridge, 2014: 387ff). Another explanation for the ‘no finding’ may be the operationalization discussed above.

**Administrative capacity**

We expected administrative capacity to have a positive effect on human development, thus a negative effect on infant mortality rate. The idea is that effective implementation should increase the benefit of development and health policies (and policies in general). However, we also expected that this effect would exist only, where there is a will to introduce and implement these types of policies. Many have argued that this will or incentives exist more often in democracies compared to autocracies. Hence, we expect the effect of state capacity to be larger in democracies. This is exactly what we find in Model 3 and 4. There is a negative statistically significant relationship between administrative capacity and infant mortality rate (Model 3), and the effect is larger in democracies (Model 4). The marginal effects are shown in Figure 1. State capacity reduces infant mortality rate in both regimes, which might mean that autocracies also want to increase human development, but that the motivation for it is even higher in democracies. To evaluate the substantive impact, we calculate the effects of an interquartile range change in administrative capacity on human
development. This change reduces the infant mortality rate with 12.9 infants per 1000 infants in democracies, and 6.5 infants in autocracies.

**Figure 1.** Marginal effects of administrative capacity in democracies and autocracies

![Graph showing marginal effects of administrative capacity in democracies and autocracies](image)

Note: Based on results from Model 4, Table 4.

Hence, we find that both administrative capacity (the ability) and democracy (the will) are important in enhancing human development. Thus, the two effects are complementary. This is in contrast to other studies that found that the two were substitutes, for example Hanson (2015) and Knutsen (2013). The reason for the diverging results might be explained by several factors. Hanson also investigates infant mortality rate, but he applies Statehist and Polity2 as measures of state capacity and regime type, respectively. As we have argued before, Statehist is quite problematic. Polity2 is also a problematic measure, since it includes several components unrelated to the electoral institutions, such as political violence. In addition, the content and aggregation rules are not transparent (Munck & Verkuilen, 2002). These issues adds to the problems with his theoretical argument. Knutsen also uses Statehist in one of his analyses, and he uses Freedom House as measure of regime type. But our study is in general difficult to compare to his, because his dependent variable is economic growth and not human development (or infant mortality rate).

**Corruption and partiality**

We also expect that impartiality and low corruption increases human development overall, but that opposing mechanisms exist, because systematized corruption might allow to tie elites
and bureaucracy together, and in inefficient and inert systems, it might ‘grease the wheels’ (Johnston, 2008; Aidt, 2003; Meón & Sekkat, 2005). In addition, we expect a moderating effect of regime type (the motivation to increase human development). Model 5 shows a negative statistically significant relationship between corruption and partiality and infant mortality rate. The sign is negative, which means that impartiality and low corruption reduces infant mortality rates. This supports our expectations. Model 6 shows that there is no statistically significant difference across regime type. However, when looking at the marginal effects in Figure 2, it appears that the effect in autocracies is not statistically significant, but that there is a positive statistically significant effect in democracies. The reason for this could be our expectation that autocracies do not prioritize human development to the same extent as democracies do, which is the expectation form our will-ability argument.

**Figure 2.** Marginal effects of corruption and partiality in democracies and autocracies

![Image](image_url)

Note: Based on results from Model 6, Table 4.

Yet, another explanation is that the type of corruption differs systematically across regimes. In autocracies, systematized and controlled corruption is possible, which might enhance economic and human development. However, this is not possible in democracies, because (state) corruption is not legitimate. Thus, the only corruption possible here is petty corruption, which have no development-enhancing effects (Johnston, 2008; Kelsall, 2011).
Since there is no statistically significant effect in autocracies, we only interpret the effect in democracies. The effect of an interquartile range decrease in corruption and partiality reduces the infant mortality rate by 5.5 infants per 1000 infants.

**Comparing effect sizes**

Surprisingly, monopoly of violence does not seem to have an effect on human development, though it might seem that way because of low variation on the measure, and monopoly of violence just being a necessary condition for human development.

Administrative capacity seems to reduce the infant mortality rate in both democracies and autocracies, but most in the former. The effects are respectively 12.9 and 6.5 infants per change in interquartile range. Corruption and partiality lead to increases in infant mortality rates in democracies, but there is no effect in autocracies. The effect in democracies is 5.5 infants per interquartile range change. Hence, the effect of administrative capacity is markedly larger in both regime types compared to the effect of corruption and partiality. This indicates that there might be opposing effects of corruption and partiality.

Another way to compare the effects is to include all three explanatory variables in the same model (not shown). Since we expect corruption to have an effect on human development through administrative capacity, we should expect the two effects to decrease – but mainly the effect of corruption. This is what we find. Only administrative capacity remain statistically significant (P < 0.001).

Another relevant finding is that there seem to be no independent effect of regime type in any models except for Model 4. We can interpret this as the will not being enough to enhance human development alone (without state capacity).

**Conclusions**

The central goal of this paper has been to show that state capacity is a multidimensional concept, and that it is important to distinguish the different elements due to both theoretical and empirical arguments. In addition, we argued that state capacity is not important by itself,
but only when the specific goal, e.g., human development, is prioritized. Our results support this.

Our first contribution is the conceptual discussion of why impartiality and absence of corruption should not be a part of administrative capacity, because it does not relate to the ability to implement policies, but rather the way it is done. Corruption and partiality might be causes of (lacking) administrative capacity, but are not a part of the concept itself.

Our second contribution is the more concept-consistent measurement of the different components of state capacity.

Our third contribution is theoretical and empirical. We argued that state capacity has an effect on certain phenomena, but only if they are prioritized. Hence, to affect a phenomenon, we both need the will and the ability. Many scholars have argued that the will to enhance human development is larger in democracies compared to autocracies, why regime type is a proxy for the motivation to increase human development.

We find that administrative capacity seems to have the largest impact – compared to monopoly of violence and corruption and partiality – on human development across both regime types. Surprisingly, there seem to be no effect of monopoly of violence. However, this conclusion is tentative due to the operationalization concerns and the low variation on the variable. The effect of impartiality and low corruption seems only to be present in democracies, and here the effect is only half of the effect of administrative capacity.

In contrast to other studies, we find that the effects in general are largest in democracies compared to autocracies, which supports the argument that both will and ability to enhance human development is important; thus, state capacity and democracy are complements rather than substitutes.

Hence, if one prioritizes enhancing human development, administrative capacity in general is important – and it seems to be more important than reducing corruption and partiality, especially in autocracies, where there seems to be no effect of corruption and partiality. Therefore, reforms of this part of the state apparatus may not be as important as the good-governance literature indicates (e.g., Grindle, 2011). Instead, we should focus on educating
public officials and other aspects that enhances the capacity (independent of corruption and partiality). Studies indicate that an educated administration and structures guiding incentives have increased China’s state capacity considerably, which in turn have led to their dramatic development the last 20-30 years (Edin, 2003; Knight, 2014).

However, fighting corruption might still increase human development, but only in democracies. This might be because of a lack of preferences for human development in autocracies. However, this might not be the (only) explanation, since human development seems to be prioritized in autocracies, since there is an effect of administrative capacity here. Instead, the type of corruption may be the explanation. Some systematic and controlled corruption may happen in autocracies, and it might actually increase the ability to implement policies, and thus, increase state capacity.

However, our conclusions are subject to a couple of qualifications. First, our measure of administrative capacity is not entirely independent of corruption, despite our attempt to find such a measure. Thus, it is unclear how much of the effects of administrative capacity that is actually caused by corruption. Additionally, we have only investigated the overall relationship, and not the mechanisms. We made this decision to increase the generalizability, though it decreases the internal validity of the results. However, studying the mechanisms may be an avenue for future research.

Overall, the paper contributes to the literature on state capacity, since it offers a more meaningful conceptualization and more concept-consistent measurement of state capacity. In addition, we find that state capacity improves human development – more in democracies than in autocracies (perhaps because human development is prioritized more in the former than in the latter). Despite the qualification, we believe that our results are valid.
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