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Legitimacy as Congruence: Matching Expert-Coded and Public Opinion Data

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Abstract

Legitimacy is one of the most crucial and most contested concepts in political science. Much of the controversy stems from the difficulty of aligning the concept and its measurement. Existing approaches to measure legitimacy suffer from three main forms of biases: a normative, a behavioral and a self-censorship induced bias. This paper sets out to overcome these biases and presents a conceptualization of *legitimacy as congruence* between rulers' legitimation claims – their *menus of legitimation* – and the values and preferences – *the appetites* – of the ruled. The concept is multidimensional in that it acknowledges five dimensions of legitimacy: personalist; performance; rational-legal; ideology; and traditional legitimacy. It is also relational in that it takes both the regime and the citizen side into account, and allows for both sides to vary. Rulers provide a menu of justifications for their regimes and citizens guided by their appetite either reject, have some, or all that is offered on the menu of legitimation. By matching expert-coded regime legitimation claims with citizens' appetite for each claim, I create a combined measure of regime legitimacy that is comparable across time and regime types. I show in an empirical analysis that consistent with theoretical expectations, legitimacy as congruence is positively related to political stability and negatively related to repression.

1 Introduction

The word legitimacy has its origins in Latin, meaning “to make legal”, yet in the social sciences the concept of legitimacy entails more than laws and rules. It concerns how authority can be exercised in ways that those subjected to it willingly accept. Given this, all rulers desire legitimacy. Legitimacy, or the lack thereof, has been attributed to affect tax compliance (Levi et al., 2009), voter turnout, the rise of populists (Doyle, 2011), protests, violence, and ultimately the breakdown or survival of both autocratic regimes (Burnell 2006; Kailitz and Stockemer 2017), and liberal democracy (Linz and Stepan 1996; Dalton 2004). In sum, it affects the cost of ruling (Alagappa 1995).

A key objection to the value of the concept stems from the apparent difficulty of measuring legitimacy in a reasonably unbiased way (e.g., Marquez, 2016; O’Kane, 1993). On top of the standard issues of empirical equivalence (Stegmueller, 2011), existing attempts at creating measures of legitimacy that are comparable across regimes are plagued by three main forms of biases: a *normative*, a *behavioral* and a *self-censorship* induced bias.

To build better measures of legitimacy these obstacles must be circumvented. First, to stay clear of normative bias the concept needs to be void of normative benchmarks introduced by the researcher. The conceptualization of legitimacy as congruence is therefore deliberately agnostic towards regime type. Second, behavioral indicators are excluded from my measure of legitimacy. It is not possible to impute “willing obedience” from action – especially not in autocratic countries. Unfortunately, the third bias stemming from self-censorship, cannot be as easily avoided as it is necessary to include the opinions of the population that grants a regime legitimacy. A third party, even a set of country experts, cannot make credible judgement calls on regime legitimacy. My strategy here is to avoid indicators most prone to self-censorship, such as trust in the executive and support for the ruling party (see Tannenber, 2022).

Making matters worse, existing approaches often exhibit a mismatch between concept and measurement. Conceptually, most accounts of legitimacy are relational, yet existing approaches to operationalization are not. Rulers of different regimes, democratic or not, can offer different institutions and can influence the citizens’ perceptions of what constitutes the most appropriate institutions with their *claims to legitimacy*. A relational approach to legitimacy must therefore take both the regime and the citizen side into account. To do this, I develop a conceptualization of legitimacy as the degree of *congruence* between a set of sources of legitimacy pursued by the rulers – their menus of legitimation – and the values and preferences - the appetite - of their citizens.

How is this operationalized? To account for the regime side in the equation, I employ measures of the types of legitimation claims rulers provide as justification for why they are entitled to rule (Tannenber et al., 2021). Note that these are measures of the strategies that rulers use to obtain legitimacy and not measures of legitimacy itself.

I rely on five primary legitimation strategies; personalistic, performance, rational-legal, ideology and traditional. On the citizen side, I create time-series cross-sectional measures of appetite for the five dimensions by combining public opinion data from well over 2 million survey respondents using a dynamic Bayesian latent variable model (Claassen, 2019). To estimate country-year-level appetite I utilize over 100 unique survey items included in 1662 nationally representative public opinion surveys fielded in 136 countries between 1981 and 2020. I proceed by operationalizing legitimacy along the five different dimensions by matching the expert coded data on regime legitimation claims with the estimated appetite data. In doing so I create a measure congruence in each dimension, and an additive measure of overall regime legitimacy that can be employed in comparative research at the country-level.

Lastly, I employ this measure in an empirical application to test the relationship between legitimacy as congruence and two key outcomes: political stability and repression. First, legitimacy should have a positive relationship with political stability: disaffected citizens are more likely to abandon within-system participation and engage in destabilizing activities in both democracies (Dalton, 2004; Norris, 1999) and autocracies (Burnell, 2006). Second, the existing literature have strong expectations that rulers who do not enjoy “willing compliance” need to apply more coercive and repressive measures to ensure obedience and regime stability (Alagappa, 1995; Beetham, 1991; Gerschewski, 2013). These tests are a validation of my approach. I show that in line with the theoretical expectations, rulers offering menus that match poorly with their citizens’ appetite are less stable and use more repression to stay in power. Conversely, rulers in regimes with a better match between menus and appetite enjoy more political stability and use less repression. I also compare the proposed measure to existing approaches and show how legitimacy as congruence differs from measures building on political trust. This conceptualization and operationalization shows that legitimacy as congruence have clear implications for the cost of ruling, and can help us to better understand the interactions between rulers and ruled.

2 Existing literature

Legitimacy is one of the most central concepts in political science (Barker, 1990; Beetham, 1991; Levi et al., 2009; Lipset, 1959; Weatherford, 1992). The word itself originates from Latin, meaning “to make legal”, and legitimate rule refers so to a form of political rule that is in accordance with the laws, that is non-arbitrary and free from despotism. In the social sciences, legitimacy goes beyond its etymological origins, it concerns how authority can be exercised in ways that those subjected to it accept, such that they willingly obey. It transcends trust or support for the incumbent as it is possible to neither trust nor support an incumbent, but at the same time recognizing his or her right to exercise authority.

In the classical works, legitimacy is viewed as a prerequisite of long-term survival for all political systems (Smith, 1970), and in the more recent literature, legitimacy (or the lack thereof) has been attributed to affect to cost of ruling (Alagappa, 1995), tax compliance (Levi et al., 2009), voter turnout, the rise of populists (Doyle, 2011), protests, violence, and ultimately the breakdown or survival of both autocratic regimes (Burnell, 2006; Kailitz and Stockemer, 2017), and liberal democracy (Linz and Stepan, 1996).

There is a distinction to be made between normative and empirical legitimacy. In democratic theory and in political philosophy, the concept refers to what a good political order should look like. Instead of pursuing what is a good rule, Weber ([1922] 1978) advocated an empirical usage of the concept. In Weber’s reasoning employing a universal measure of what is normatively legitimate (and what is not), misses the citizens’ varying beliefs of what are appropriate political institutions and processes (Weber, 1978). In other words, a normative approach that, for example, holds liberal democracy as the benchmark distorts research of legitimacy in autocracies as it overlooks that authoritarian regimes too can enjoy legitimacy, either among a broad range or subsets of the population (Burnell, 2006). Most political scientist studying legitimacy adopt the empirical approach (Booth and Seligson, 2009; Easton, 1965; Gilley, 2009; Lipset, 1959), yet as I show in this paper, the concept’s normative roots influence and bias both conceptualizations and operationalizations.

2.1 A relational concept

Legitimacy is relational. For example, Lipset defines political legitimacy as the degree to which the rulers of a regime manage to “engender and maintain the belief that existing political institutions are the most appropriate or proper ones for the society” (Lipset, 1960: 86). This definition of legitimacy has two consequences of particular interest to the study of legitimacy in a comparative perspective. First, it acknowledges that societies can prefer different institutional configurations, as some may not believe that democratic institutions are “the most appropriate ones”. Second, it recognizes that rulers of regimes, democratic or not, can influence the citizens’ perceptions of what constitutes “the most appropriate” institutions: they can offer and seek to invoke different forms of legitimacy. Legitimacy refers not only to the claims of the rulers but also to the reception of such claims by the ruled. It is therefore necessary to take *both* the regime and the citizen side into account to understand legitimacy of a system.

2.2 Types and dimensions of legitimacy

Weber ([1922] 1978) distinguished between three types of legitimate authority: rational-legal; charismatic; and traditional rule. Rational-legal authority is based on the existence of an extensive, binding, and consistent set of laws which regulate the exercise of power.

Under systems of rational-legal authority, rule is exercised by officials following a set of rules (the law). Those exercising power in a legal form of authority are usually selected by special means such as election (democracy or oligarchy). Still, even their authority is usually subject to constraint by the law. Citizens' obedience is thus owed to a legally established and predictable order. In contrast, charismatic rule rests "...on devotion to the exceptional sanctity, heroism or exemplary character of an individual person, and of the normative patterns or order revealed or ordained by him." (Weber [1922] 1978, 215). In a system based on charismatic legitimacy, obedience is owed to the person of the leader due to his or her extraordinary capabilities. Lastly, traditional rule is grounded "on an established belief in the sanctity of immemorial traditions and the legitimacy of those exercising authority under them" (Weber [1922] 1978, 215), and citizens' obedience is owed on the basis of tradition. These three are ideal-typical and are drawn in pure terms, so that they can be compared to an empirical reality as tools of measurement. As such, the types are conceptually orthogonal, but not mutually exclusive in reality.

Weber's three types of legitimacy are certainly present in today's world. Democracies typically rely heavily – and liberal democracies perhaps exclusively – on rational-legal legitimacy. Autocratic regimes draw upon this type of legitimacy as well, particularly those who manage to successfully manipulate elections (Rose and Mishler, 2009), but they also appeal to something beyond democratic procedures in claiming their right to rule (Brusis, 2015; Burnell, 2006; Dukalskis and Gerschewski, 2017; Holbig and Gilley, 2010; Nathan, 2003). Traditional rule would include God-given, natural and historic legitimation claimed by, for example, the monarchs across the Middle East that appeal to long historical traditions or the theocratic regime in Iran that invokes religious-based legitimacy (Yom and Gause, 2012). Yet, Weber's three ideal types do include all the types of legitimacy observed. For example, ideological legitimation for which the source of legitimacy lies in the future, beyond the history, the leader's charisma or the procedures of the regime, is absent in Weber's typology. Ideology, aims to produce legitimacy for the regime not because of what it has achieved in the past – nor its current performance – but because what it will do in the future in realizing some form of utopia (Hudson, 1977; Schlumberger, 2010). Given the importance that rulers have placed on nationalism, socialism and communism in creating a following amongst its citizenry (Dukalskis, 2017; Holbig, 2013; Linz, 2000), such forward-looking ideology deserves its place as a specific type or dimension in which rulers can claim and gain legitimacy.

Additionally, performance may cause large segments of the society to accept or support autocratic rule (Geddes and Zaller, 1989; Schlumberger, 2010; Zhu, 2011). Performance related sources of legitimacy are those that come from the success (or perceived success) of meeting the citizen's material needs. Performance-based support is generally attributed to the regime following economic growth, low unemployment, physical security etc., but can come to encompass additional dimensions depending on the values of the citizens

(e.g., environmental concerns, responsiveness). The central question here is whether citizens perceive rulers to meet their demands. For example, Russia's strong economic performance from 2000 and up until the global financial crisis of 2008 was a central source for legitimating Putin's early rule (Brusis, 2015).

There is disagreement as to whether performance legitimacy should be called legitimacy (Hechter, 2009; Von Soest and Grauvogel, 2017). From the classical perspective, legitimacy has to entail more than obedience on the basis of material or coercive incentives: loyalty may be hypocritically simulated on purely opportunistic grounds, or carried out in practice for reasons of material self-interest. Because the use of material rewards to secure compliance to authority is contingent on renewed rewards, the critics would see distinctions between obedience on this basis and on the basis of legitimacy (Bernhard, 1993; Gerschewski, 2013). However, this criticism does not take issue with the idea that poor performance can weaken legitimacy (Lipset, 1959), only that it cannot substitute for a set of beliefs. Acknowledging that it is likely more volatile than other dimensions of legitimacy, I follow Dukalskis and Gerschewski (2017) and consider performance-based legitimacy as a means for rulers of establishing a reciprocal social contract as described in the rentier state-literature (e.g., Skocpol, 1982), and include it as a dimension of legitimacy in the conceptualization of legitimacy as congruence.

Beetham (1991) has formulated an influential critique of Weber's typology of legitimate rule, arguing that Weber collapsed several dimensions into one typology. Beetham instead proposes to keep separate at least three dimensions: legality, justifiability, and explicit expressions of consent. Views of legality refer to that the regime has come to power and exercises authority in accordance with the accepted rules. The second dimension of legitimacy, views of justification, captures the citizens' response to the moral justifications of the regime's exercise of power and not the political system as such. Acts of consent on the other hand concerns actions that express citizens' recognition of the regime's right to rule. Beetham argues that legitimacy needs to be explicitly conferred, be it in the form of mass rallies, elections, or even swearing an oath (Beetham 1991). Later empirical work by Gilley, 2006 and (Power and Cyr, 2009) have adopted these dimensions in their measures of legitimacy, but I argue that two out of the three dimensions are problematic to apply in comparative work. The first risks introducing a normative bias when the researcher decides upon what are the accepted rules, and the third introduces a behavioral bias which conflates the concept with its purported effects. I elaborate more on the consequences of these biases under the sub-heading *Obstacles to Measurement*. My approach is close to the second dimension but focuses on the citizens' response to the rulers claims to their right to rule, including both the access to, and the exercise of power.

Easton (1965) offers another important understanding of empirical legitimacy which is normatively neutral and as such applicable across regimes. Easton distinguished between

diffuse and *specific* regime support. Diffuse support refers to “evaluations of what an object is or represents – to the general meaning it has for a person – not of what it does” (Easton 1975, 444). It is independent of the continuous input, but refers a “reservoir of favorable attitudes or good will” that enable the ruled to tolerate outputs they do not prefer (Easton 1965, 273). As such, diffuse support is more long-term oriented, identity-related, and often entails a full-fledged political ideology. Specific support, on the other hand, is a short-term evaluation of the performance of the political system. It is based on a cost-benefit calculus: if the incumbent regime delivers, people pay back with short-term support. If the regime fails to deliver, support is withheld (Easton, 1965).

In the literature, there is an ambiguity with regards to *types*, *dimensions* and *sources* of legitimacy. Going forward – in my own conceptualization – I will speak exclusively about dimensions of legitimacy. These are: personalist; performance; rational-legal; ideological; and traditional legitimacy. The overall congruence in these five dimensions constitutes regime legitimacy.

2.3 Measuring legitimacy

2.3.1 Existing approaches

Historically, there have been two primary traditions in measuring the legitimacy of political systems, that which Weatherford, 1992 calls “the view from above” and “the view from the grassroots”. The first, presumes that an outside observer “relying on fairly gross aggregate evidence” can assign a comparable metric to the legitimacy of a system (Weatherford 1992, 150). The second has largely come to replace the view from above and instead relies citizens’ evaluations of their system. These measures from below, come in many different forms ranging from single survey items (Kwak et al., 2012), to an aggregated set of related survey items (Doyle, 2011; Fisk and Cherney, 2017), and combination of some ten opinion-based and behavioral indicators (Booth and Seligson, 2009; Gilley, 2006).

The majority of existing work uses survey items probing for citizens’ trust in one or several of the following institutions to infer respondents’ legitimacy beliefs: the government, the president, the parliament, political parties, the police, the judiciary, and the tax authorities (Booth and Seligson 2009; Power and Cyr 2009; Moehler 2009; Gilley 2006b; Doyle 2011; Fisk and Cherney 2017; Ji and Jiang 2020). One concern with employing indicators of trust as proxy measures for legitimacy is that trust may mean different things in different regimes. In particular there is a risk that it reflects satisfaction with the incumbent government instead of support for the regime. This is more likely to be the case in democracies, whereas in autocratic countries trust is more likely to be an indicator of regime support as the incumbent and the regime are intertwined (Ji and Jiang, 2020). If true, employing such measures in comparative work would then – in Easton’s

(1965) terms – result in comparing specific support in democracies with diffuse support in autocracies. Satisfaction with democracy is yet another dimension this is sometimes used as a measure of legitimacy (Booth and Seligson, 2009; Chu et al., 2008; Gilley, 2006; Moehler and Lindberg, 2009). While a reasonable proxy in truly (and equally) democratic settings it does not allow for the concept of legitimacy to travel into the realm of autocracies.

Others have used questions related to the perceived right of state institutions to make binding decision and make people obey the law, either exclusively (Levi et al., 2009), or in combination with other items (Moehler and Lindberg 2009; Power and Cyr 2009). Yet another approach to measuring legitimacy stems from Beetham’s (1991) conceptualization in which explicit acts of consent constitutes one dimension. A number of behavioral indicators have been used to gauge expressions of consent (or lack thereof), such as voter turnout (Doyle 2011), tax payments, violent protests (Gilley 2006b), as well as cooperation in an experimental setting (Dickson et al., 2015). In sum, there exists many approaches to operationalizing legitimacy on the citizen side, each with their own strengths and weaknesses. In the next section I discuss why neither one, nor a combination, is suitable for comparative research if the goal is to compare legitimacy between more than one regime type.

A key line of critique against the use of legitimacy as a concept in the social sciences focuses on the methodological challenge to empirically capture the concept (Marquez 2016; O’Kane 1993). In their view, legitimacy can only be inferred from observable variables, such as political stability, when it is in sharp decline or once it has fully gone. Much of this critique is warranted and in the next section I detail these challenges and suggest how to overcome them. However, with effort it is possible to measure empirical legitimacy, and if it is as important as the classical literature suggests, we should be able to observe its effects.

2.4 Obstacles to measurement

Existing attempts at creating measures of legitimacy that are comparable across regimes are plagued by three distinct forms of biases: *normative*, *behavioral* and an *opinion/censorship* induced bias. In addition to these obstacles, the concept of legitimacy and measures of it, often suffer from two crucial discrepancies. First, legitimacy is conceptually thought of as *relational*, but empirically it is not treated as such. Second, the *multidimensionality* of the concept is often reduced to unidimensional measures.

A normative bias is introduced into the concept and the measurement of legitimacy when the researcher premieres a certain ideology and mode of governance over others, often that of liberal democracy. This is not necessarily wrong and certainly not surprising, legitimacy as a concept has a strong tradition within normative political philosophy. In this

tradition legitimacy is understood as the *rightness* of a regime's claim to rule as assessed from a normative standpoint. From this perspective a legitimate autocracy becomes an oxymoron (Gerschewski 2018). The key problem with a normative conceptualization of legitimacy is agreeing upon the reference point of what should constitute a legitimate system and exercise of power. Following Weber's (1978) reasoning, employing a universal measure of what is normatively legitimate, and what is not, is blind to variation in citizens' view of what constitutes normatively appropriate political systems and processes. Regardless of how appealing liberal democracy might be, a normative approach distorts research of public support and legitimacy in autocracies as it overlooks that authoritarian regimes can enjoy popular support among either a broad range or subsets of the population (Burnell 2006), and that this variation is not simply explained by levels of political liberalization (Nathan 2003). This normative bias is introduced into measures of legitimacy that includes citizens' evaluations "how well democracy is functioning in their society". Typically, this biases measures of legitimacy in favor of democratic regimes.

A behavioral bias is induced by the inclusion of acts of consent in the understanding of legitimacy. Previous research has utilized a set of behavioral indicators to inform levels of legitimacy, such as, election turnout rates, tax compliance, protests and crime levels (Gilley 2009; Levi, Sacks, and Tyler 2009; Power and Cyr 2009). This practice leads to a number of problems if we are interested in making comparisons between regimes and across time and space. The first issue is that including acts of consent conflates *regime legitimacy* with the (expected) effects of having a *legitimate regime*. It is a problem of empirical equivalence, as such acts can be driven by the system's capacity to monitor and sanction non-compliance, as well as by the regime's level of legitimacy. For example, if we see high tax compliance, we cannot ascertain if we are observing high legitimacy or high state capacity, or both. Similarly, the absence of mass protests can reflect the rulers' repressive capabilities rather than citizens' acquiescence (Grauvogel and von Soest, 2014). Second, the meaning of these acts may also be context dependent. For example, while demonstrations and protests can be viewed as a positive feature of democracies, in autocracies their occurrence are seen as an indication of legitimacy problems (von Haldenwang, 2017).

Self-censorship induced bias comes into play with the inclusion of opinion-based measures. As most conceptualizations of legitimacy center on the beliefs of the citizens to determine whether or not a regime is legitimate, operationalizations often rely on public opinion data. Typically, these are data obtained from direct survey questions regarding trust in, or support for the government, the national leadership, or various state institutions (cf. (Gilley 2009; Booth and Seligson 2009)). Given the theoretical work of (Kuran, 1997) on "preference falsification" we should be wary of the sensitivity of the questions and that they may cause respondents to misrepresent their true preferences. While existing empirical findings on self-censorship are quite mixed (see Frye et al., 2017;

Author/s	Normative	Behavioral	Self-censorship	Un-relational	Unidimensional
Weatherford (1992)	yes	no	yes	yes	no
Gilley (2006b)	yes	yes	yes	yes	no
Grimes (2006)	no	no	yes	yes	yes
Chu et al. (2008)	yes	no	yes	yes	yes
Levi et. al. (2009)	no	no	yes	yes	no
Booth & Seligson (2009)	yes	yes	yes	yes	no
Norris (2011)	yes	no	yes	yes	no
Power & Cyr (2009)	yes	yes	yes	yes	no
Moehler & Lindberg (2009)	yes	no	yes	yes	no
Doyle (2011)	no	no	yes	yes	yes
Chang et. al. (2013)	no	no	yes	yes	no
Fisk & Cherney (2017)	no	no	yes	yes	yes
Ji & Jiang (2020)	no	no	yes	yes	no

Table 1: Biases and conceptual mismatches in measures of legitimacy

Lei and Lu, 2017; Shen and Truex, 2020; Tang, 2016), a growing body of literature show self-censorship to be problematic for measuring public opinion in autocracies (Jiang and Yang, 2016; Kalinin, 2016; Robinson and Tannenber, 2019; Tannenber, 2022). It is important, to the extent possible, to stay clear of the indicators most prone to self-censorship bias, such as trust in the executive and support for the ruling party (see Tannenber 2022 for a discussion).

Most accounts of empirical legitimacy are conceptually relational, but existing operationalizations are not. Rulers of different regimes, democratic or not, can offer different institutions and can influence the citizens’ perceptions of what constitutes “the most appropriate” institutions (cf. Lipset (1960)). It is therefore important to take both the regime and the citizen side into account to understand legitimacy of a political system. Lastly, with few exceptions (cf. Rogowski, 2015), the majority of the literature treat legitimacy as a multidimensional concept (Easton 1965; Gilley 2009; Moehler and Lindberg 2009; Dukalskis and Gerschewski 2017). Yet, as Booth and Seligson (2009: 10-11) notes, many researchers still rely on unidimensional measures even if they conceptualize legitimacy as a multi-dimensional phenomenon.

Table 1 shows the prevalence of the three different forms of biases and the two common conceptual mismatches in existing measures of legitimacy. Note that all of issues highlighted in table 1 are not necessarily an issue for that particular study, rather these are would-be issues if their measure were to be employed in comparative work including countries with very different forms of political regimes.

3 Legitimacy as congruence

Eckstein, 1961 first introduced the concept of congruence in the 1960's, arguing that political regimes are stable only when the exercise of authority matches citizens' authority beliefs. This implies that autocracies are stable when the people buy into the power of unchecked authority, and correspondingly democracies are stable when citizens believe that the regime should be subjected to popular control. Building on Eckstein's view of congruence, I develop a conceptualization of legitimacy as the degree of congruence between five primary sources of legitimacy pursued by the rulers – their menu of legitimation – and the values and preferences - the appetite - of its citizens. This conceptualization of legitimacy, illustrated in figure 1, is relational in that it takes into account the actions and reactions of rulers and citizens. It is also multidimensional, in that it acknowledges various dimensions of legitimacy, on which I elaborate on below. Conceptually, multidimensionality is not new. As documented in the previous section, most of the existing literature treat legitimacy as a multidimensional concept (Weber 1978; Gilley 2009; Moehler and Lindberg 2009; Dukalskis and Gerschewski 2017), yet the authors suggest different dimensions to be key. Drawing from the rich literature in the field of legitimacy, I expand upon on Weber's original categorization of *rational-legal*, *personalism/charismatic* and *traditional* legitimacy, and add *forward-looking ideology*. I also include *performance* legitimacy as a possible dimension of legitimacy, in which governments can base their regime on reciprocal social contracts. Previous work has shown that rulers frequently invoke several overlapping claims that combine elements of different ideal-types at the same time to justify their rule (Alagappa 1995; Burnell 2006; Von Soest and Grauvogel 2017).

3.1 The menus and the appetites: legitimation claims and legitimacy beliefs

Rulers provide a menu of justifications for their regime and citizens guided by their appetite either reject or accept some or all that is offered on the menu of legitimation. The menu and appetite do not emerge in vacuum and are not independent from each other. Naturally, the menu and appetite are influenced by their respective political cultures (Eckstein 1961). Rulers can use propaganda and civic education to nurture appetite for the claims they employed to justify their particular regime, and appetites may also affect which particular legitimation strategies rulers choose to put on the menu and to what extent they are emphasized. This dependence, however, does not invalidate the measure. I am not attempting to measure the effect of claims on appetite and vis-a-versa, I simply state that the difference between them at any given time is what constitutes legitimacy. For that purpose, it does not matter how they influence each other, nor does it matter

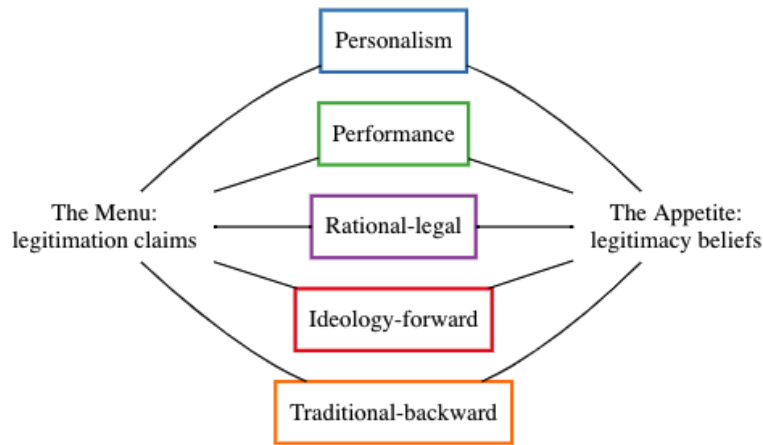


Figure 1: The Dimensions of Legitimacy

if appetite is the product of propaganda or civic education, as long as the sentiment is sincere.

One assumption that my approach rests on, is that citizens are able to gauge approximately where the rulers stand in terms of claims and the distance to their own appetite. This assumption is reasonable. After all, legitimation claims are by their nature designed to be known: this information is distributed in classrooms, the media and through official government information channels etc. (Dinas and Northmore-Ball, 2020).

Personalist claims are based on the extraordinary, supernatural or exceptional qualities of an individual leader. Although personalist legitimacy claims are commonplace among autocracies, the extent of these varies across time and space. This claim is not reserved for autocracies alone, rulers of democratic – or what once was – countries frequently invoke personalist claims. Duterte in the Philippines, Modi in India and Erdogan in Turkey are examples of this. A population that places greater weight on the importance of a strong leader will attribute legitimacy to a regime pursuing this type of legitimacy.

Performance related claims of legitimacy are those that emphasize the rulers' success of meeting the citizen's material needs. While usually focused on economic growth, low unemployment, physical security etc., it can encompass additional aspects of performance depending on the demands of the citizens. A population that places higher importance on, for example, economic development will be more likely have an appetite for the regime's success (or perceived success) in delivering that. Naturally, the vast majority of citizens want their leaders to perform in some capacity, but the key here is whether citizens perceive that that the incumbent's right to rule is conditioned on performance or not.

By evoking rational-legal legitimation claims, rulers contend that their right to rule comes from the adherence to a consistent and binding set of laws that regulate and disci-

pline the exercise of authority. The access to power and the exercise of power are based on a legally established and predictable order. A population that prioritizes accountability and checks on the exercise of power will attribute more legitimacy in a system relying on rational-legal rule.

Ideology-based claims purport that the ruler's right to hold power stems from upholding some form of forward-looking ideology, be it socialism, communism, fascism or forms of nationalism. Although nationalism in many instances is backward-looking it has forward-looking aims, as opposed to the next dimension - traditional legitimacy. Citizens who ascribe to the specific type of ideology promoted by their rulers are expected to attribute legitimacy in this dimension.

Traditional, backward-looking claims center around age-old, sanctified practices and immemorial traditions. The rulers are appointed on the basis of established customs (primogeniture or the election by small council) and obeyed on the basis of this status. Obedience is usually based on a common socialization that stresses the importance of customary practices and adherence to them. Historical accounts and foundational myths are important sources of the legitimacy in the present and can include claims of a natural hereditary rule (Burnell 2006). While absent in Weber's notion of traditional rule, religious claims are closely related. They too play up immemorial and not-to-be-questioned traditions, which often overlap with classic traditional claims. For example, by claiming descent from the Prophet, both the Moroccan and Jordanian royal families legitimate their rule through religion (Yom and Gause 2012). Citizens who place a greater affinity towards traditional and religious authorities will view political systems relying on such claims as more legitimate.

3.2 Congruence: appetite for the menu

I conceptualize legitimacy as congruence in the following way. Regime legitimacy is the sum of congruence in each of the five dimensions discussed above. We can think of this as rulers operating set menus restaurants. The degree to which citizens have an appetite for what is being served determines satisfaction. The better the menu matches the appetite, the higher the legitimacy. To some extent the items on the menu are compensatory: a terrific main course may forgive a bland starter, but it is more satisfying if both are terrific. It is also important to note that no one dimension is necessarily needed for a system to be perfectly legitimate. Some people do not want dessert, and its absence from the menu is then acceptable or even preferable. That is the core of congruence theory. Ultimately what matters is the match between the regimes' menu of legitimation and citizens' appetite.

Table 2 provides a stylized example of how various combinations of menus and appetites yield different levels of legitimacy in one particular dimension. For example, in the

Country	Menu	Appetite	Legitimacy
A	1	0	0
B	1	0.5	0.5
C	1	1	1
D	0.5	1	0.5
E	0	1	0
F	0	0	1

Table 2: Stylized example of congruence of menu and appetite in one dimension

personalist dimension, country A indicates a country in which the rulers heavily promote the person of the leader, but in which the citizens have little or no interest in strong-man rule, resulting in no legitimacy. In country B on the other hand, the citizens have a somewhat larger appetite for strong-man rule, resulting in a higher level of legitimacy as congruence in the personalist dimension. Importantly, countries can achieve equally high (or low) levels of legitimacy by pursuing completely different strategies, as illustrated by country C and F. Thus, my conceptualization of legitimacy is truly relational, both in terms of conceptualization and measurement, which is crucial for avoiding the problem of normative bias. This becomes clear if we revisit table ??, this time thinking about the rational-legal dimension, a dimension that with a non-relational measure often suffers from a normative bias. By accepting that a regime can be fully legitimate by both relying completely on rational-legal legitimation claims (country C) or by disregarding such claims completely (country F) my conceptualization of legitimacy is agnostic towards regime type. The task of bestowing legitimacy is left to the citizens, in relation to what is being offered.

I start by estimating congruence in each dimension separately. The theoretically highest possible value of legitimacy in each dimension is 1. From this, the degree of *incongruence* is subtracted. That is, the distance between what citizens want and what the regime provides. Incongruence is simply the absolute value of the menu *minus* the appetite. Thus, when fully congruent the menu and appetite cancel out, indicating full legitimacy in that dimension:

$$Legitimacy_i = 1 - |Menu_i - Appetite_i|$$

Overall regime legitimacy is simply the additive sum of congruence in each dimension, with i denoting the dimension:

$$Legitimacy = \sum_{i=1}^5 Legitimacy_i$$

The highest possible score of regime legitimacy is therefore 5. From this it follows that a regime can enjoy a relatively high levels of legitimacy even when being fully incongruent in one dimension, as long as a better balance is struck between menu and appetites in other dimensions.

4 Data: Measuring legitimacy as congruence

I proceed by operationalizing legitimacy in the five different dimensions by matching data on regime legitimation strategies with public opinion data, creating a measure of legitimacy as congruence covering 139 countries over 30 plus years.

4.1 The menus: Legitimation claims

To operationalize the menus of legitimation, I utilize previous work in which I and co-authors asked country-experts to rate the extent to which the government promotes or references the person of the leader, rational-legal procedures, its performance, and ideology in order to justify the regime in place (Tannenbergh et al., 2021). The questions are listed in table 3. We measure the extent to which governments utilize these legitimation strategies for their respective regimes using V-Dem’s expert coding methods for generating latent variables for 183 countries from 1900 to 2019 (Coppedge et al., 2021a,b; Marquardt and Pemstein, 2018; Pemstein et al., 2018). The *government* is understood as the chief executive along with the cabinet, ministries, and top civil servants, and the *regime* is understood as a set of formal and/or informal rules that govern the choice of political leaders and their exercise of power. Following the item on ideology, the experts were asked to categorize its nature as nationalist, communist/socialist, conservative/restorative, religious, and/or separatist. In this first application of the concept, I assign communist/socialist-based claims to *Ideology* and religious based claims to *Traditional*.

Dimension	Question item
Personalism	To what extent is the Chief Executive portrayed as being endowed with an extraordinary personal characteristics and/or leadership skills (e.g. as father or mother of the nation, exceptionally heroic, moral, pious, or wise, or any other extraordinary attribute valued by the society)?
Performance	To what extent does the government refer to performance (such as providing economic growth, poverty reduction, effective and non-corrupt governance, and/or providing security) in order to justify the regime in place?
Rational-legal	To what extent does the current government refer to the legal norms and regulations in order to justify the regime in place? This question pertains to legal norms and regulations as laid out for instance in the constitution regarding access to power (e.g. elections) as well as exercise of power (e.g. rule of law).
Ideology	To what extent does the current government promote a specific ideology or societal model (an officially codified set of beliefs used to justify a particular set of social, political, and economic relations; for example communism , socialism , [...]) in order to justify the regime in place?
Traditional	To what extent does the current government promote a specific ideology or societal model (an officially codified set of beliefs used to justify a particular set of social, political, and economic relations; for example Religious in order to justify the regime in place?

Table 3: Operationalizing the Menus of Legitimation

Figure 2, displays the distribution of legitimation claims in the five dimensions for the 136 countries for which I have corresponding appetite data, from 1981 to 2020, totaling 3254 country years. All claims are rescaled to range from 0 to 1, with higher values indicating higher emphasis of the claim. A wide range is available on the menu and there are data point covering the entire scale in each dimension. The distribution of performance and procedural claims are both skewed to the right: most rulers employ these in claiming their right to rule to a considerable extent.

The left-skewed distributions of Ideology and Religion are a product of the coding decision to transfer the full “extent of the claim” attributed by coders on question 4 to for example Religion, when the subsequent item on its character (as religious-based) was agreed upon by half or more of the experts. When fewer than half of the experts agree upon the character, the assigned estimate is depreciated by the share of experts who agree. For example, if the estimate on the overall extent of claim is 0.5, but only a quarter of the country experts qualify its character as religious the estimate is depreciated by 0.25, resulting in an estimate of 0.125 being assigned to traditional-based claims. The spikes at 0 for both Ideology-communism and Traditional-religion reflect that many rulers do not employ socialist/communist or religious claims. For a validation of the measures see Tannenber et al. (2021).

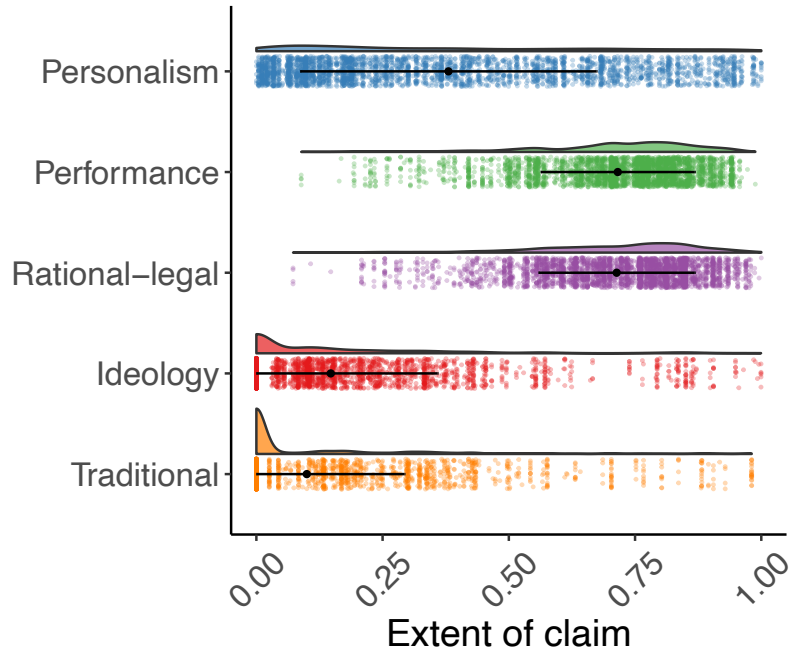


Figure 2: Distribution of extent of claims from the Menu of Legitimation

4.2 The appetites: Legitimacy beliefs

To measure appetites, I make use of existing public opinion data from the following cross-national survey projects: the Afrobarometer; the Arabbarometer; the Asianbarometer; the Latin American Public Opinion Project; the Latinobarometer; Pew Research Center; the European Values Survey; and the World Values Survey. With the goal of gathering *all* items tapping into appetite for the five dimensions of legitimacy, I compile a dataset including 109 distinct items from all these projects. In total, this appetites dataset contains data from 2 183 798 respondents, nested within 1 662 nationally representative surveys fielded across 136 countries, between 1981 and 2020. It is global in scope and spans 39 years.

The main challenge in creating measures of appetite that are comparative on a global scale, is to reconcile the wide range of disparate survey items tapping into appetite in each dimension. Differences in sample sizes, response scales, question wording, geographical and temporal coverage makes this a formidable task. Furthermore, even seemingly identical survey items can suffer from measurement non-equivalence (Stegmueller 2011), i.e., have different effects in different countries. In order to consolidate these diverse data, I follow Claassen’s (2019) approach to estimating smooth country-year panels of public opinion by modelling appetites as latent traits and estimating several dynamic Bayesian latent trait models. The IRT model developed in Claassen’s (2019) has successfully been used to estimate democratic mood (Claassen, 2020b), support for democracy (Claassen, 2020a), and political trust (Ji and Jiang, 2020) globally and attitudes towards immigration within Europe (Claassen and McLaren, 2021), using data which is fragmented over

space, time and survey items. The advantage of the IRT approach is that in contrast to traditional approaches of combining survey items from different sources, which requires semantic equivalence between question items, the IRT approach does not. This is crucial for estimating appetite for the five dimensions of legitimacy as there are not enough survey items that are plausibly equivalent when moving from a one well-harmonized barometer-project to the global scale.

To identify survey items, I searched through codebooks from all major comparative survey projects and have identified items tapping into appetite. For an item to be included it has to have been fielded in a minimum of two countries and in two separate years. Since the model is a binominal IRT model, the individual survey responses have to be recoded into binary responses. For the majority of the items, respondents were asked to what extent they agree with a statement and presented a four-point scale to respond. For example, for the item: “Would you disapprove or approve of the following? Elections and Parliament are abolished so that the president can decide everything”, respondents who either “Approve” or “Strongly Approve” with the statement are coded as 1. “Disagree”, “Strongly Disagree”, and “Don’t know” are coded as 0. For another large share of items, respondents are asked to choose between two statements, using a five-point scale. For example: “Which of the following statements is closest to your views? A: Since the President was elected to lead the country, he should not be bound by laws or court decisions that he thinks are wrong. B: The President/Prime Minister must always obey the laws and the courts, even if he thinks they are wrong.” For that item “Agree with A” and “Strongly agree with A” are coded as 1, indicating a latent appetite for personalism. “Strongly agree with B”, “Agree with B”, “Agree with neither” and “Don’t know” are coded as 0. Note that for this particular item, agreement with statement B is also used to measure latent appetite for rational-legal rule. An additional handful of items have a 7-point response scale. In such instances, the middle point is coded as 0 and either the top or bottom three are coded as 1. One exception to this pattern are items asking respondents for their ideological position on a scale where, for example, 0 is left and 10 is right. For these items, I arbitrarily introduce a cut-off at either the bottom 3 or bottom 2 (depending on the scale), to indicate appetite for socialist/communist rule. Appendix C, Table 11 to 15, details the question wording and the recoding criteria for each question item used to construct the appetite estimates. Table 4 lists a few example-items used to estimate appetite in each of the five dimensions.

4.2.1 Ideal items versus available items

Unfortunately, but unsurprisingly, none of the employed appetite items perfectly match its corresponding legitimacy claim. They were simply not designed for this purpose. But how far off are they from the ideal items, and do they tap into respondents’ latent

Dimension	N items	Example item	Response coded as 1
Personalism	22	We should get rid of parliament and elections and have a strong leader decide things	Agree; Strongly agree
Performance	20	I wouldn't mind if an undemocratic government came to power if it solved the economic problems of our country	Agree; Strongly agree
Rational-legal	28	The President must always obey the laws and the courts, even if he thinks they are wrong.	Agree; Agree Very Strongly
Ideology-Communism	12	The market economy is the only system with which the country can become a developed country	Very much disagree; disagree
Traditional-Religion	28	Men of religion should have influence over the decisions of government	Agree; Strongly agree

Table 4: Example of items used to estimate appetite

appetite in each dimension?

There is a wide arrange of items used to estimate appetite for personalism (see Appendix C, table 11, for all 22 different items): ranging from asking respondents about agreement with the abolition of electoral politics in favor for strong man rule, to suggesting that “as long as leaders are morally upright we can let the decide everything” or that “the president should ignore the supreme court whenever it hinders the work of our government”. A problem with several of the items in the personalist dimension is that they present the respondent with a forced trade-off, suggesting some dimensions to be mutually exclusive. For example, the main item on appetite for personalism forces respondents to choose between preference for a strong leader and preference for electoral politics. An ideal item in the personalist dimension would allow respondents to place a high premium on the person of the ruler while at the same time allowing the respondent to hold any view of whether elections and parliament should remain intact. Such an item might ask respondents to rate how much power should lie with the president vis-a-vis the parliament and/or other branches of government as such an item would tap into appetite for strong man rule without ruling out alternatives, as well as allowing appetite for an elected strong-man. Granted, the personalism items also includes “Since the President was elected to lead the country, he should not be bound by laws or court decisions that he thinks are wrong”, which allows for an elected but unfettered ruler. Despite the items wide range of focus and question wording, all items in the personalist dimension are strongly correlated (ranging between .43 to .86).

The problem of a forced trade-off also troubles the performance items, for which several asks respondents to choose between a government that “can get things done”

on the one hand, and “having influence over what it does” on the other. This may well be a false dichotomy: supposedly one can prefer to have influence over what a government does in order for it to get things done. An ideal item would ask how long the respondents can tolerate or accept the current regime (i.e. the rules of the game, not the incumbent government) if it does not deliver on economic growth, poverty reduction etc.? Importantly, the type of regime should be allowed to vary so that performance is not only pitted against democracy, but also against one-party, monarchical rule etc. A particularly questionable item is agreement with the proposition that “in a democracy the economy runs poorly”. Indeed, it is possible to have that view and still feel that it is worth having a democracy. That item is, however, correlated with support for expert/technocratic rule at the .89 level suggesting that, at least, it is not the case for most respondents. Accepting that the items in the performance dimension are the furthest from their ideal, I proceed to estimate appetite in this preliminary operationalization, but maintain caution in the interpretation of congruence in this particular dimension.

The items employed in the rational-legal dimension are closer to their ideal. The items typically probe for the diss/agreement with allowing the president and the government to side-step the law - the very manifestation of rational-legal rule - in the event of disagreement or when the country is facing a difficult situation. Responses to these items are particularly informative for appetite for predictable and law-bound regime. Another set of appetite items focus on having a preference for democracy over “a leader with all the power not limited by law”, or agreement with “democracy may have its problems but is better than any other form of government”. These latter items tap into the rational-legal appetite regarding access to power, while the former is better capturing preference of rational-legal exercise of power. An alternative approach is to separate the access and exercise of power into two subdimensions of rational-legal rule. In this first exercise of operationalizing legitimacy as congruence I do not distinguish between these. Depending on the set of items and survey project the rational-legal items correlate at the .25 to .82-level.

It is difficult to find good items in ideology dimension. Most items that plausibly capture nationalism are flawed in that they typically ask whether a respondent is proud of their country or if they primarily feel attached to a national identity over an ethnic identity. An ideal item would probe for the necessity that the rulers pursue a nationalist project or upholding the national pride. In this first application I will only measure legitimacy with regards to a socialist or communist ideology. To do this I searched for items asking for respondents’ preference for socialist or communist principles. An ideal item here would ask to what extent the rules of government should be designed for the pursuit of complete social and economic equality. Closest to this ideal is “If you had to choose between reducing economic inequality and protecting political freedom, which would you say is more important?” which is asked in the Asianbarometer. Similar items

include disagreement with the statement that “a free-market economy is best for the country” and that “government ownership over businesses should increase”. Another set of items I employ asks for self-placement on a left-right scale. These have the benefit of being available in several of the large survey projects such as the World Values Survey. For many countries in the African for some in the Asian context I have to rely on a suboptimal item. In the Afrobarometer surveys the only available item that may tap into support for communist rule is item on acceptance for one-party rule. There are two main objections to the use of this items. First, one could possibly desire socialism and communism under a multi-party system. Second, respondents may not have a communist or socialist party in mind when thinking of one-party rule. However, in the sample, only a handful of countries have experienced one party rule under a non-socialist or non-communist party. These are: South Korea; Taiwan, Philippines; and Indonesia which have experienced right wing one party-rule, as well as the Ivory Coast which period of one-party rule was rather non-ideological (Piccolino, 2018). Additionally, Singapore and Malaysia are still ruled by dominant center-right and right-wing ruling parties. Lastly, the item may not work in Cambodia either, where the ruling Cambodian People’s Party officially dropped its commitment to Marxism in the early 1990s. For these countries I do use the item of support for one-party rule. In the remaining countries in the sample, the assumption is that respondents have a communist regime in mind when answering the question. It should be an acceptable proxy in countries such as Mozambique, Zimbabwe, Tanzania etc. which have experienced one-party rule under a socialist or communist party. In sum, while far from optimal the item serves as an acceptable proxy to measure appetite in the ideological dimension. In the Asianbarometer sample, which include both the item on acceptance of one-party rule as well as an item on preference for economic equality over political freedom, show a positive correlation of .24 between the variables.

Lastly, in the traditional dimension, ideal items would ask for acceptance of hereditary rule, i.e., acceptance of monarchy to gauge appetite in the classic Weberian sub-dimension of traditional legitimacy. Items of that nature are not widely available, supposedly because few regimes are in fact monarchical. Due to data availability, I therefore only measure traditional legitimacy based on religion in this first application of legitimacy as congruence. For this sub-dimension an ideal item would ask whether or not it is paramount that the rulers are themselves religious leaders or that their rule is guided by religion. The available items are not too far off. Statements such as: “The country is better off if religious people hold public positions in the state”; “Religious leaders should not influence government” are particularly close. Another set of items are less direct and utilize the religiosity of the respondents to reveal latent appetite for religious rule. These items probe for the frequency of praying, religious service attendance, and devoutness. To the extent that people scoring high on these items still are in favor of a separation between religion and politics, the inclusion of such items lead to an overestimate in ap-

petite in this dimension. Given that the latter set of items are positively correlated with the former ranging between .26 to .46, I will retain them in this first operationalization of legitimacy as congruence.

4.2.2 Relying on less sensitive survey items

I have made a point of the importance to employ survey items that do not suffer from systematic bias due to the regime type. As a guiding principle, I use items for which the answer options do not force respondents to reveal their support or otherwise for the regime. To take an example, it is possible for a respondent to choose between the following two statements without revealing his or her support for the rulers: “Since the President was elected to lead the country, he should not be bound by laws or court decisions that he thinks are wrong.” and “The President must always obey the laws and the courts, even if he thinks they are wrong.”. A respondent can plausibly choose either one of the statements and still be a supporter (or non-supporter) of the regime. In contrast, choosing between having *trust* or *not having trust* in the President or the ruling party does not offer the respondent any opportunity to retain ambiguity regarding regime support. To ground this empirically, I evaluate the sensitivity of the appetite items by utilizing the research design from Tannenbergh (2022) to compare the sensitivity of each item available in the Afrobarometer data round 2 to 8.¹ The other survey projects do not include information on perceived survey sponsor and hence do not allow for a test of autocratic bias. I benchmark the self-censorship bias of the appetite items against the estimated bias of a set standard items used in the literature to measure legitimacy. The trust items used in previous research suffer from an autocratic bias. The effect of respondents’ belief (fear) that the government has commissioned the survey is clear: in autocratic countries this belief is associated with more regime friendly responses, while in more democratic countries this belief has little or no bearing on respondents’ answers. In contrast to the items used in previous research to measure legitimacy, the items I employ are considerably less sensitive, if at all (for details see Appendix E, Figure 11).

4.2.3 Model specification and estimation

To extract the latent appetite in each dimension, I employ the method proposed by Claassen (2019) to estimate a dynamic Bayesian latent trait model.² In the model, survey items that are fielded by different projects are always treated as distinct even when the question wording is close to identical. This allows for the model’s item bias parameters to capture variation induced both by question wording and any idiosyncrasies in the methodology of the various survey projects. The item bias parameters are similar

¹The model is a multilevel linear random slope model with the two-level interaction term between individual-level suspicion of survey sponsor and country-level democracy.

²This is model 6 from Claassen (2019)

to intercepts in confirmatory factor analysis or item difficulty parameters in standard IRT models. The model also includes item by country bias parameters, which help to adjust for varying effects of survey questions across countries. This is important for a number of reasons, for example, translations may not always yield exactly the same question wording. Lastly, countries' latent estimates are allowed to evolve over time. For example, latent appetite for personalism in a particular country and year is treated as a function of the appetite estimated in the previous year plus some random noise. This dynamic component smooths opinion over time and allows the estimation of a particular country's appetite even in years for which no survey data are available (Claassen 2019). To take appetite for personalism as an example, I treat appetite as a binary outcome (either having appetite or no appetite), and model the observed number of respondents y_{ikt} having an appetite for a strong leader in country i , year t , and survey project item k as a variable with a binomial distributed count:

$$y_{ikt} = \text{Binominal}(s_{ikt}, \pi_{ikt})$$

where π_{ikt} is the probability that a response of appetite is provided. A beta prior is then used to model the probability parameter π , producing a beta-binomial distribution.

$$\pi_{ikt} \sim \text{Beta}(\alpha_{ikt}, \beta_{ikt})$$

The two shape parameters of the beta distribution can be expressed as an expectation parameter η and a dispersion parameter ϕ :

$$\begin{aligned}\alpha_{ikt} &= \eta\phi_{ikt} \\ \beta_{ikt} &= \phi(1 - \eta_{ikt})\end{aligned}$$

The expectation parameter η is then modelled as a function of the latent country-year estimates θ , the item parameters λ , and item-country parameters δ . θ is the key latent appetite estimate which I later use together with estimates of the menu to calculate levels of legitimacy in each dimension. λ captures the effects of item-specific bias (following from sampling, question wording etc.); δ adjusts the heterogeneity in item bias across countries, that is when the same item may have different meanings in different national contexts. I also include item-specific slope γ_k which allow the association between the latent trait θ and the observed responses to vary across items.

$$\eta_{ikt} = \text{logit}^{-1}(\lambda_k + \delta_{ik} + \gamma_k\theta_{it})$$

$$\lambda_k \sim N(\mu_\lambda, \sigma_\lambda^2)$$

$$\delta_{ik} \sim N(0, \sigma_{\delta}^2)$$

Lastly, adding a dynamic linear model allows for the latent appetite estimates to evolve over time. Current level of latent appetite is thereby a function of previous year’s level and some random noise:

$$\theta_{it} \sim N(\theta_{i,t-1}, \sigma_{\theta}^2)$$

Model estimation and convergence The five models are estimated using Bayesian Markov-Chain Monte Carlo (MCMC) methods via the CmdStanR package (Gabry and Češnovar 2021), which rely on the Stan software (Carpenter et al., 2017). For each model, four parallel chains were run for 1,000 samples each, with the first 500 samples in each chain used for warm up, and discarded. The number of iterations proved to be sufficient for convergence, with the R-hat diagnostic reaching a value of between 0.95 and 1.05 (which is the primary diagnostic for chain convergence) for all parameters and in all five models. Further, examining the trace plots for key parameters, shows that the estimated values stabilize after the warm-up iterations and that the four chains mix well. That is, no chains are consistently higher or lower than others.

Down-sides of estimating country-year appetite The approach of estimating country-year appetite with Claassen’s (2019) approach has the benefit of producing long and complete time-series of average appetite in each country-year observation. But this is not without cost. A downside is that the dichotomization of the appetite variables causes some information loss: I cannot distinguish those who “Agree” from those who “Strongly agree” with an item. This is unfortunate but necessary given the trade-off between model simplicity and information retainment.

4.2.4 Exploring the appetites data

Before combining the appetite estimates with the menus of legitimation, I briefly explore the appetites data to evaluate the face validity of the measures. Does it square with our expectations? All appetite estimates are normalized so that higher values represent higher appetite in each dimension, ranging from 0 to 1.

Table 5, shows the correlations between appetite in the five dimensions. It is largely in line with expectations. Appetite for personalism is positively correlated with appetite for performance at the .52 level, while strongly negatively correlated with appetite for rational-legal rule at -.77. These relationships are not surprising given the personalism items either explicitly (or at least implicitly) asks for support for a strong leader to solve the countries problems (i.e., deliver some type of performance). Moreover, several of the items used to measure personalism prompted respondents to choose between a strong

leader on the one hand and either electoral politics (one form of rational-legal rule) or procedural law-bound-rule on the other. Appetite for rational-legal rule is negatively correlated with appetite in all other dimension, suggesting that it should be difficult for a regime to be legitimate by relying heavily on this dimension in combination with others. Appetite for performance-based rule is strongly and positively correlated with appetite for communist (Ideological) rule. This should not be surprising given the emphasis on performance in many communist regimes (Holbig 2013).

	Personalism	Performance	Rational-legal	Ideology
Personalism				
Performance	0.52****			
Rational-legal	-0.78****	-0.54****		
Ideology	0.45****	0.52****	-0.46****	
Traditional	0.26****	0.26****	-0.25****	0.46****

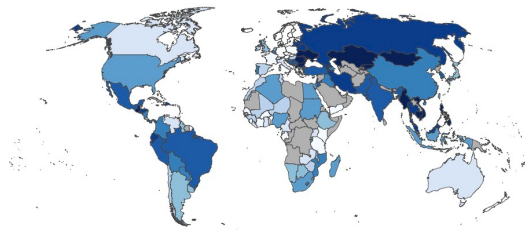
Table 5: Correlation matrix of appetite

Next, I explore the face validity of the appetite estimates. Figure 3, plots the average appetite across all available countries for 2015 to 2020, for each dimension. Darker colors denote higher appetite while white indicates no or low appetite. Countries for which there is no data are colored grey. Appetite for personalism is estimated to be the highest in Mongolia, Thailand, Philippines, and comparatively high in Brazil, Mexico and India where we have seen a rise in legitimation claims based on the person of the ruler in the in the last 5-year period. Appetite for performance is particularly high in southern and eastern Europe in countries such as Hungary, Bulgaria, Romania, Serbia and Russia, as well as in North Africa and South East Asia. Appetite for Rational-legal rule is high where we expect it to be: in northern and western Europe, Australia, Canada etc. On the African continent, it is particularly high in democratic Ghana, Botswana, Mauritius and the Ivory Coast. A comparatively low appetite for rational-legal rule is noted in Russia, Brazil, Mexico and throughout North Africa and the Middle East, with the exception of Tunisia and Morocco where appetite is somewhat higher. Appetite for communist or socialist rule is high in some of the countries we would expect such as China, Vietnam and Mozambique, and is comparatively high throughout Latin America. Lastly, appetite for religious based rule is the highest in Iran, Pakistan, and Indonesia, and comparatively high throughout Africa, Central America and South East Asia. In sum, the appetite estimates largely make sense.

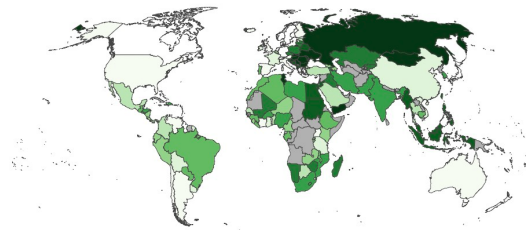
Average appetite in each dimension 2015 to 2020

Darker color indicates higher appetite in each dimension. Missing data = grey

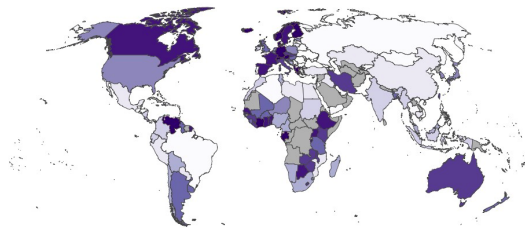
Personalism



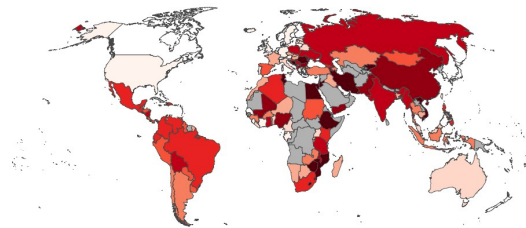
Performance



Rational-legal



Ideology-Communism



Traditional-Religion

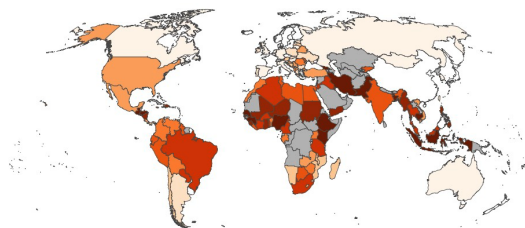


Figure 3: Average appetite around the world 2015 to 2020

5 Legitimacy as congruence

Having estimated appetite, I next create measures of congruence in each dimension. I first subtract the country-year estimates of appetite from the country-year values of the claims to estimate incongruence. The degree of incongruence is then subtracted from the highest possible value of congruence of 1, leaving an estimate of congruence between menu and appetite in each dimension. I then take the sum of the five dimensions to create estimates of overall congruence. Legitimacy as congruence in each country year is calculated as: $\sum_{i=1}^5 1 - |Menu_i - Appetite_i|$, with i denoting the dimension of legitimacy.

5.1 Exploring the legitimacy data

Before moving to the empirical application, I explore the data and the sources of in/congruence at the country-level to evaluate the face validity of the measure. Figure 4, 5 and 6 plot the country average appetite in each dimension on the x-axis against the average extent of the legitimization claims on the y-axis for the years 2015 to 2020. The diagonal dotted line represents *the line of perfect congruence*. Observations above the line are incongruent because of too much emphasis on the particular claim in relation to citizens' appetite. Observations below the line represents appetite that is not satisfied. In the personalist dimension the plot highlights how the world's longest ruling dictator (who is still in power) Paul Biya of Cameroon, the (at the time) dictator of Zimbabwe Robert Mugabe are among those most out of touch with their subjects' appetite. In contrast, equally personalist rule in Cambodia, Thailand, and in the Philippines enjoys a high congruence due to higher appetite. On the other side of the spectrum, regimes that hardly promote personalism, such as the Nordic countries, Greece, Germany, Ghana are equally congruent due to low appetite strong-man rule. Mongolia and Romania are striking outliers in the opposite direction, where incongruence is due to appetite for personalism that is not being met. These countries may be particularly susceptible to future personalist politicians.

In the performance dimension, most incongruence stem from rulers claiming legitimacy on the basis of performances to a greater extent than what citizens have appetite for. See for example Singapore and Venezuela. Countries such as, China, India and Brazil display a high congruence in this dimension with middling to high claims, which are on par with their populations' appetite. The graph highlights a likely issue with the validity of the performance claims measure. In particular the extraordinary high reliance on the claim among liberal democracies like Sweden, Norway, Denmark, Netherlands, Australia etc. These countries exhibit some of the lowest congruence in this dimension as appetite for performance is typically low, hurting their overall legitimacy estimates.

Figure 5, plots the menu and appetite in the rational-legal and in the ideological dimension. First, the left-hand panel shows high congruence due to high appetite being

Relationship between Menu and Appetite 2015 to 2020

Dotted diagonal line indicates line of perfect congruence

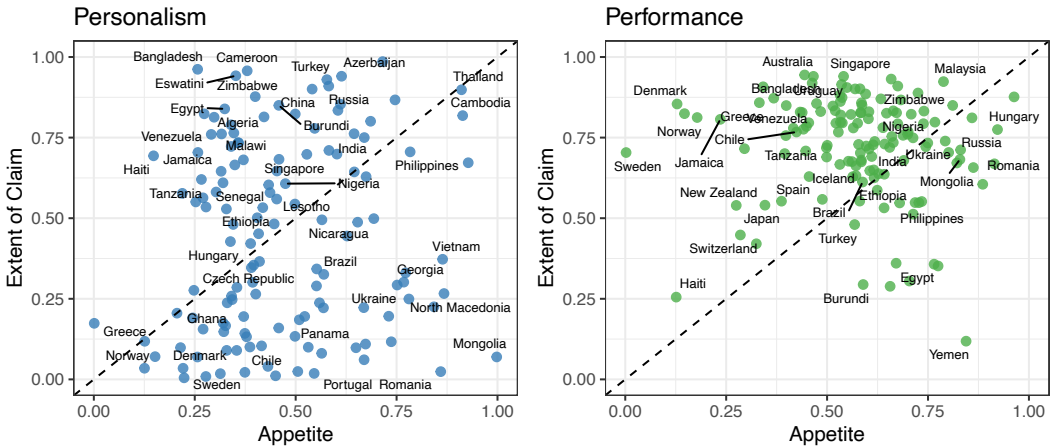


Figure 4: Source of (in)congruence: Personalism and Performance

met in countries such as Greece, Denmark and Botswana, while high congruence due to low demand and provision is observed in Azerbaijan, Turkey, Egypt and Thailand. In countries such as Iran, Venezuela, and Bangladesh the source of incongruence is appetite is which is not being met with corresponding claims. Much of the incongruence is driven by an overreliance on claims in the rational-legal dimension vis-a-vis appetite. This is most apparent in Ukraine, Georgia, North Macedonia and Moldova.

Next, the right-hand panel shows that among countries relying on a socialist or communist ideology, there is high congruence with citizens' appetite in Vietnam, Bolivia and Tanzania. High congruence is also achieved in countries such as Japan and Norway where both the claims and appetite is low, and in Cameroon, Bangladesh and South Africa where claims and appetite are at middling levels. Incongruence, due to over-provision is notably found in Venezuela and Belarus. On the other side of the spectrum, incongruence due to under provision is observed in Cambodia, Romania, Montenegro, Tunisia etc.

In the dimension of traditional-religious based rule, Figure 6, shows how Iran display congruence between appetites and claims at high levels. Other Countries such as Iraq, Sudan, India and Morocco are also close to fully congruent with semi-high provision and appetite, whereas we find an equally high congruence in countries such as China, New Zealand and Norway where both claims and appetite are low. In countries such as Georgia, Indonesia and Guinea, incongruence stems from a high appetite which is not met by the claim. With the approach taken in this paper, it is only Turkey that over provides in this dimension.

Relationship between Menu and Appetite 2015 to 2020
Dotted diagonal line indicates line of perfect congruence

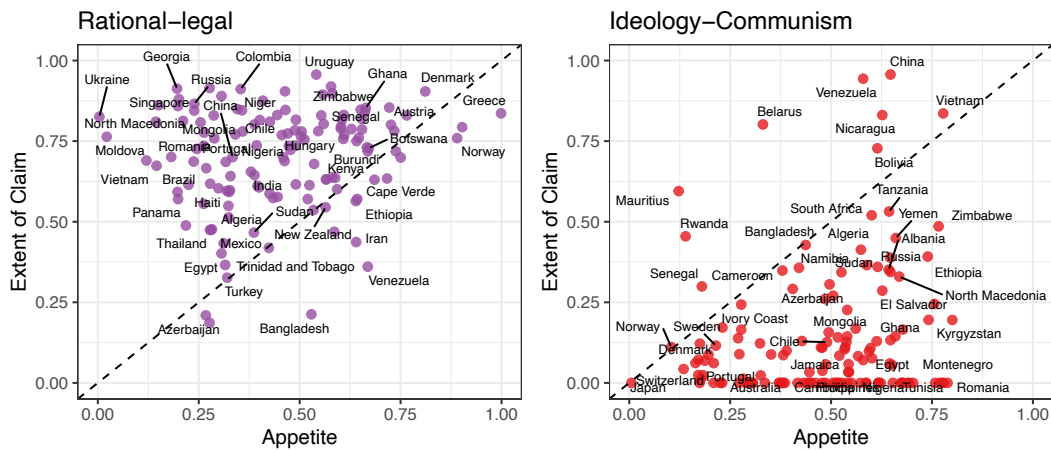


Figure 5: Source of (in)congruence: Rational-legal and Ideology

Relationship between Menu and Appetite 2015 to 2020
Dotted diagonal line indicates line of perfect congruence

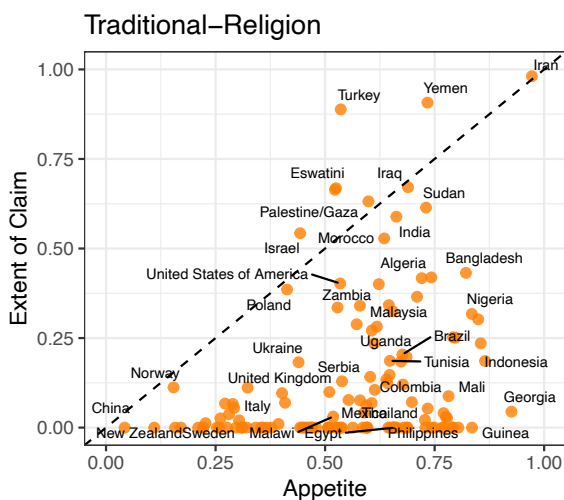


Figure 6: Source of (in)congruence: Traditional-Religion

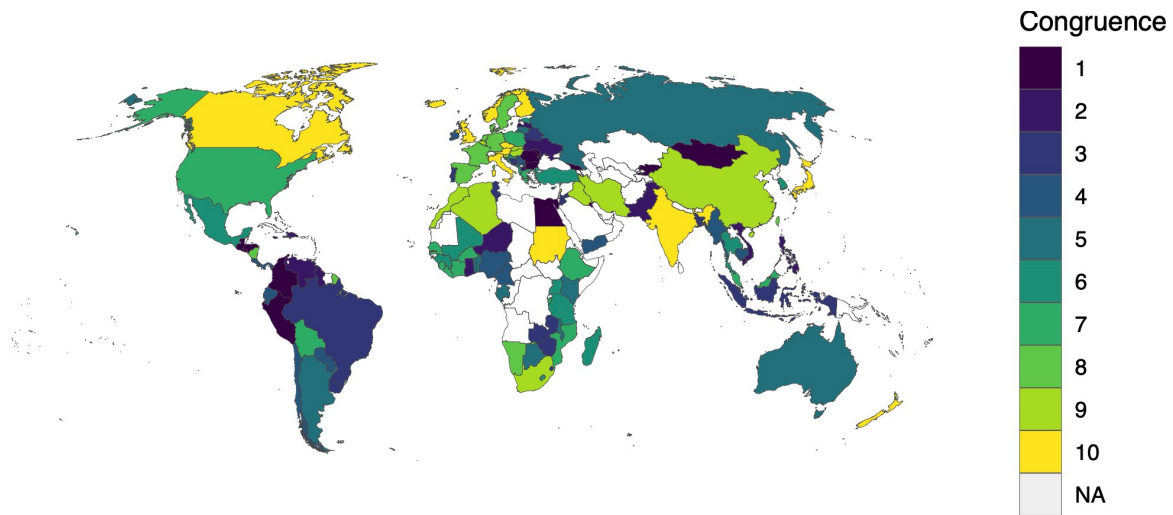


Figure 7: Average congruence around the world 2015 to 2020

Lastly, I look at the country ranking of the combined legitimacy as congruence measure. Figure 8, maps the average combined congruence between 2015 and 2020 for the 122 countries for which I have observations in all dimensions for the time-period. In the top three deciles we find many of the liberal democracies often thought to enjoy high legitimacy, such as Germany, New Zealand, Japan, Canada, the United Kingdom, Italy, etc., as well as often cited as highly legitimate autocracies such as China (Holbig and Gilley, 2010). Of course, no objective yardstick to which the measure can be compared exists, but the inclusion of Sudan, Algeria and Iraq in the top deciles stand out as a challenge to the validity of the measure given the developments in these countries during the time period, which includes coups, mass protest and war. The compounding effects of measurement error, or even the estimation of average appetites (hiding polarization) may lead to these unexpected values. Another explanation is that the measure comes from a different time and that there are changes prior to said events that are not accounted for. It may, however, also be that while legitimacy should be expected to strengthen states in general, it does not offer an impregnable armor to protect against unrest. Among the least legitimate countries we find countries such as Bulgaria, Egypt, Venezuela, Ukraine, and Pakistan, as well as several of the Central American and Caribbean states, such as Honduras, El Salvador and Haiti.

5.1.1 Issues with face validity and limitations

Overall, the face validity of congruence in the five dimensions is good, but there are nevertheless some problems with the measures that needs to be discussed. First is how to approach unfulfilled claims. It is one thing for rulers to claim their “right to rule” in one dimension but it is another to actually fulfill that claim. For example, both Singapore and Venezuela rely heavily on performance-based rule, yet in the past decade

it is only Singapore that seems to have delivered in this dimension. It likely matters for the perception of the population if the claim is credible, yet with the approach I take in this paper I cannot distinguish credible from uncredible claims. These phenomena of hollow claims are perhaps most notable in the performance dimension but can occur in any of the five dimensions. Zimbabwe provides an example of this. The country achieves high congruence in the rational-legal dimension because of a match between the citizens' high appetite for procedural rule and the rulers' strong emphasis on such claims. Yet, there is a clear discrepancy between the claims and reality: Zimbabwe scores very low on measures of rule of law and electoral democracy which indicate actual commitment to the two subdimensions of rational-legal rule. A potential future solution might be code claims in the performance dimension as un/credible using data on economic growth in recent years, or in the rational-legal dimension through discrepancies to measures on the rule of law etc.

The graph detailing performance claims, highlights another likely issue with the validity of the measure: an unexpected high reliance on performance among most liberal democracies. The population in liberal democracies typically display low appetite for performance-based rule, resulting in very low congruence, impacting overall legitimacy estimates negatively. This does not square with our expectations, so what is going on here? While it is certainly true that leaders in these countries believe their regime (that is, the rules of the game and not the incumbent) is beneficial for performance, it is most likely that few of them would condition the regime on performance. I.e., continued performance is not argued to be the basis of the continuation of the regime. I suspect that some experts have conflated the regime and the incumbent government when coding the question.³ Certainly, most governments in these countries would claim that they should be (re)elected on the basis of their ability to deliver, which may explain the unintuitive coding in many of the liberal democracies. In this first application of legitimacy as congruence, I retain the original estimates but future applications may consider rank-ordering claims so that, for example, a higher reliance on a claim in one dimension necessitates a lower score in the next, and yet lower in the third highest dimension and so on. Appetite could be rank-ordered as well, and congruence would then be calculated as the fit between the lists. It would come at the cost of information loss as the nuance in the continuous measure would be lost.

Despite these potential problems, the measure does appear to capture meaningful between and within country variation of legitimacy, but is it empirically useful and does it display the relationships with outcomes that the classical literature would suggest?

³To avoid this we explicitly mentioned in the coding instructions that "The regime is understood as a set of formal and/or informal rules that govern the choice of political leaders and their exercise of power. The government is understood as the chief executive along with the cabinet, ministries, and top civil servants."

6 Empirical application

In a first empirical application of legitimacy as congruence I test the measure’s relationship to two key outcomes for which the classical literature has particularly strong expectations: political stability and repression. First, legitimacy is expected to have a negative relationship with political stability. Citizens disaffected from the regime are more likely to turn away from within-system participation and engage in protests or even rebellion in both democracies (Norris 1999; Dalton 2004) and autocracies (Burnell 2006) leading to political instability. Second, the existing literature claims that the lack of legitimacy necessitates repression (Beetham 1991; Alagappa 1995), particularly in autocracies (Gerschewski 2013). Legitimacy should have a negative relationship with repression: rulers that do not enjoy voluntary and willing compliance need to apply more coercive and repressive measures to ensure compliance and regime stability. Thus, this exercise can be viewed as a construct validation of my approach to conceptualizing and measuring legitimacy as congruence.

6.1 Dependent and control variables

To measure political stability, I employ the World Bank’s Worldwide Governance Indicator on “Political Stability and Absence of Violence/Terrorism”, which is a composite indicator that measures perceptions of the likelihood of political instability and/or politically motivated violence (see Kaufmann et al., 2009 for details). To get at political repression, I follow Frantz et al., 2020 and use the inverse of Fariss’ (2014) human rights protection score as a measure repression. (Fariss, 2014) uses an IRT model to estimate human rights protection using a large number of datasets including data on political killings, imprisonment, torture, mass repression, executions etc. The updated repression data includes estimates up until 2019. In the main model specifications, I include the “usual suspects” of control variables in structural models of repression (see Hill and Jones 2014): GDP per capita (logged), population size (logged), democratic institutions, internal and external conflict. In addition to these, I also include an indicator of economic growth, as prior research has shown economic growth to have a stabilizing effect for political regimes (Kennedy, 2010). For further information on the control variables see Appendix A.

Figure 8, displays the bivariate relationship between the two dependent variables and legitimacy as congruence, with panel A showing a positive correlation between legitimacy and political stability (at .29) and panel B a negative correlation between legitimacy and repression (at -.36). To account for the time-series cross-sectional structure of the data I estimate ordinary least square models for panel data treating country–year observations as the unit of analysis and clustering standard errors at the country-level. This approach is preferable to the snap-shot, cross-sectional design which is often used in the literature on

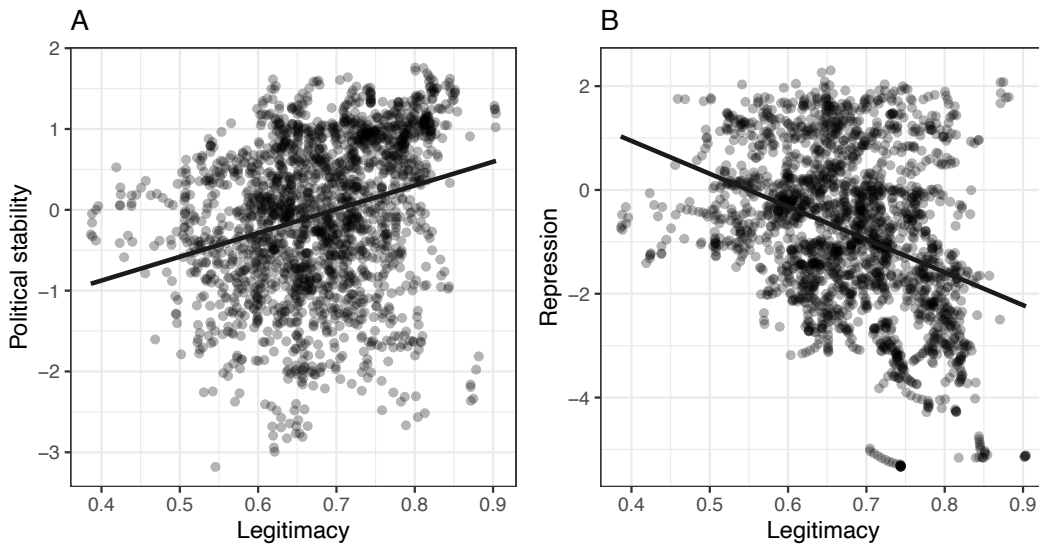


Figure 8: Relationship between the dependent variables and legitimacy

legitimacy (cf. Gilley (2006a)). The panel structure allows for estimating both dynamic panel models with a lagged dependent variable and two-way fixed-effects models. This helps to address some important unobserved temporal and country-specific confounders, such as country’s culture, geography, and historical experiences as well as general time-trends.

Table 6, details the results from the four main models. Model 1, shows legitimacy to be positively associated with political stability when controlling for potential confounders and a lagged dependent variable using a pooled sample. The relationship is corroborated by model two, that show that the relationship holds in an alternative specification (model 2), including country and year fixed-effects to account for stable country factors and global trends of political stability and legitimacy. Next, model 3 and 4 show that the expected relationship between legitimacy and repression holds in both specifications. That is, higher legitimacy is associated with lower state repression. I note that except for international conflict, the control variables display the expected relationships to the dependent variables. In model 1 and 3 the lagged dependent variable (LDV) is lagged 3 years, but the model is robust to alternative lag structures such as 1- or 5-year lags. In sum, even in competition with the common predictors of political stability and state repression, legitimacy - as conceptualized and operationalized in this paper - holds predictive power and should be considered in future models of these and similar outcomes, such as regime survival.

Table 6: Regression Results

	<i>Dependent variable:</i>			
	Political stability		Repression	
	(1)	(2)	(3)	(4)
	PCSE	Two-way FE	PCSE	Two-way FE
Legitimacy	0.162** (0.079)	0.819*** (0.161)	-0.496*** (0.093)	-2.258*** (0.215)
GDP p.c.(log)	0.065*** (0.008)	0.360*** (0.015)	-0.075*** (0.010)	-0.445*** (0.020)
GDP growth	1.350*** (0.173)	1.194*** (0.225)	-1.202*** (0.189)	-0.540* (0.298)
Population (log)	-0.024*** (0.005)	-0.112*** (0.010)	0.054*** (0.006)	0.413*** (0.014)
Electoral Democracy	0.238*** (0.038)	1.350*** (0.077)	-0.424*** (0.045)	-2.248*** (0.106)
Civil conflict	-0.192*** (0.023)	-0.631*** (0.038)	0.189*** (0.024)	0.676*** (0.050)
International conflict	-0.0001 (0.063)	0.223** (0.098)	-0.102 (0.067)	0.072 (0.131)
LDV	0.796*** (0.012)		0.861*** (0.010)	
N countries	111	112	111	112
Observations	1,690	2,008	1,861	2,083
R ²	0.918	0.630	0.960	0.726

Note:

*p<0.1; **p<0.05; ***p<0.01

6.2 Robustness test and relationships with alternative measures

How does legitimacy as congruence compare to existing measures of political legitimacy? First, I look at the relationship to the most cited cross-sectional measure of legitimacy: Gilley’s (2006) dataset of state legitimacy in 72 countries in the late 1990s to early 2000s, and an updated version of the dataset including 52 countries in the 2006 to 2010 period (Gilley 2012). I constrain the legitimacy data to the two time periods and take the mean value for the years that Gilley collapses in each dataset. The relationship between the measures, and the correlation with the two key outcome variables, political stability and repression, are displayed in the two correlation tables below (table 7 and 8). Legitimacy as congruence is strongly positively correlated with the cross-sectional legitimacy measures. I note that Gilley’s legitimacy scores display higher correlations with the two outcome variables, although this should come as no surprise given that his measures *include* indicators on violent protests and evaluation of respect for human rights, which clearly are not separate from the outcome measures.

Table 7: Comparison with Gilley (2006)

	Legitimacy	Gilley (2006)	Political stability
Legitimacy			
Gilley (2006)	0.48***		
Political stability	0.48***	0.58****	
Repression	-0.51****	-0.53****	-0.91****

Table 8: Comparison with Gilley (2012)

	Legitimacy	Gilley (2012)	Political stability
Legitimacy			
Gilley (2012)	0.49***		
Political stability	0.32*	0.65****	
Repression	-0.38**	-0.59****	-0.90****

A more interesting comparison is to look at the performance of my legitimacy measure vis-à-vis measures that rely on indicators of trust or confidence in the government, and various state institutions (e.g., Doyle (2011); Fisk and Cherney (2017); Ji and Jiang (2020)). In contrast to Gilley’s measures, trust-based measures are not conflated with outcomes of legitimacy. To enable a fair comparison and to utilize the time-series cross-sectional nature of my data, I use Claassen’s (2019) approach to create smooth panels of country-year estimates of political trust.⁴ Details on the items used, coding decisions, model convergence etc., are available in appendix D.

Figure 9 provides visual representation of estimated political trust (compare with legitimacy as congruence in figure 7). There is quite some overlap. With many of the countries in the top deciles of legitimacy, also displaying high levels of trust. The same correspondence is true in the lower deciles and the measures are positively correlated at the .28-level. However, there are several important differences to highlight. First, many

⁴This is very similar to what Ji and Jiang (2020) do in their working paper, however, since their data is not released yet, I estimate this myself using data from the same survey projects that I utilized to estimate appetites.

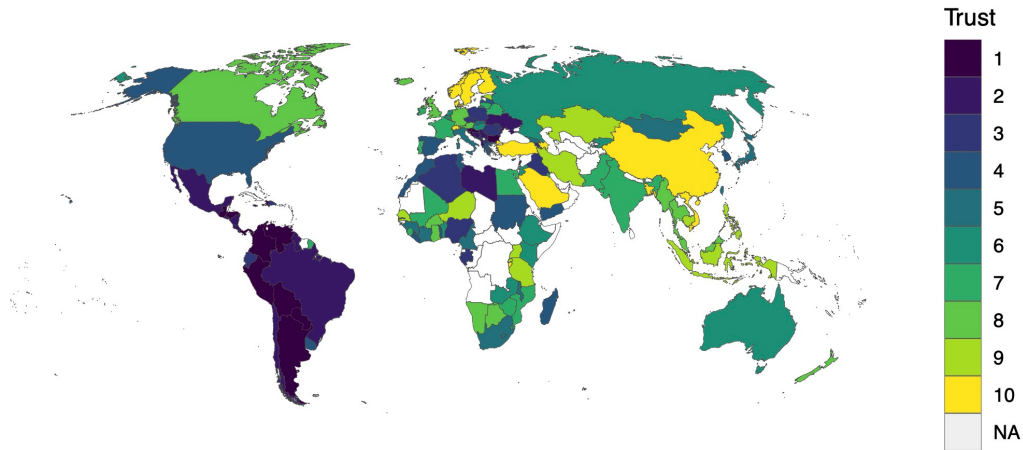


Figure 9: Average political trust around the world 2015 to 2020

liberal democracies, such as Japan, South Korea, New Zealand, Canada, Italy, Austria etc., score considerably higher on the legitimacy as congruence than on the trust-based measure. These are countries most observers would believe to be legitimate systems. Given that it is possible to neither trust nor support an incumbent or an institution, and at the same time recognize their right to exercise authority (i.e., view them as legitimate) this should perhaps not be surprising. Second, several closed autocracies and electoral autocracies with a capacity for political repression score unexpectedly high on the trust-based measure. See for example, Vietnam, Cambodia, Uzbekistan, Zimbabwe, Burundi, Saudi Arabia, Egypt and Turkey. This is consistent with recent research that show trust and confidence indicators to suffer from an autocratic bias (Tannenberg 2022; Robinson and Tannenberg 2019). How do these differences play out when predicting expected outcomes of legitimacy?

In table 9, I replicate all models from the main empirical application by replacing legitimacy as congruence with the trust-based measure, and then include both measures as a robustness test. First, like congruence, the trust-based measure exhibits the predicted empirical associations: higher trust is associated with more political stability and lower levels of repression (see model 1, 3, 5 and 7). Model 2, 4, 6, and 8 show that the measure of legitimacy as congruence is robust to the inclusion of trust in three out of the four models, and vice-versa for the trust measure. While both measures remain significant in the two-way fixed effects models (model 4 and 8), the PCSE-models (2 and 6) suggest that the trust-based measure is a better predictor of political stability and that the legitimacy as congruence-measure better predicts repression.

Table 9: Robustness tests: results with political trust

	<i>Dependent variable:</i>							
	Political stability				Repression			
	PCSE		Two-way FE		PCSE		Two-way FE	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trust	0.293*** (0.043)	0.263*** (0.044)	1.283*** (0.066)	1.200*** (0.072)	-0.158*** (0.046)	0.018 (0.048)	-1.517*** (0.087)	-1.120*** (0.100)
Legitimacy		0.033 (0.082)		0.399*** (0.154)		-0.475*** (0.094)		-1.906*** (0.212)
Lagged DV	yes	yes	no	no	yes	yes	no	no
Controls	yes	yes	yes	yes	yes	yes	yes	yes
N countries	121	111	134	112	138	112	138	112
N	1,822	1,683	2,349	1,995	2,430	1,854	2,843	2,070
R ²	0.914	0.917	0.641	0.673	0.952	0.959	0.756	0.739

Note:

*p<0.1; **p<0.05; ***p<0.01

7 Discussion

The empirical application shows that legitimacy as congruence can help us to better understand the interactions between rulers and ruled as it has clear implications for the cost of ruling. Rulers offering a menu that matches poorly with their citizens' appetite are less politically stable use more repression to stay in power. I have demonstrated that this is a promising measure that is not just another correlate of democracy, which mean it can offer additional precision to models predicting repression, political stability and related outcomes such as regime survival. Moreover, it is different from trust-based measures as is evident by comparing figure 10 and 12.

The measure is potentially useful for several sub-fields of political science. For example, it may help researchers of regime change to understand and predict successful episodes of autocratization or democratization (e.g., Lührmann and Lindberg, 2019). While not systematic evidence, it is plausible that the autocratization that has occurred (and is occurring) in India, Brazil and Hungary has been facilitated by the increase in legitimacy as congruence following Modi's, Bolsonaro's and Orban's emphasis on religion as well as their own personas. Furthermore, researchers studying protest behavior and repression, particularly in autocracies, may want to examine the effects of congruence in key dimensions for their regimes of interest. For example, there may be particular configurations of congruence that are more or less susceptible to pressure during crisis. We can imagine that countries relying on performance claims (and where the people have

appetite for this) to be particularly vulnerable to economic crisis. And are countries that boost a socialist or communist ideology more likely to face backlash in the event of rising inequality or increased unemployment? These are empirical questions that now can be tested.

Naturally, given that this is the first take at operationalizing legitimacy as congruence there are several limitations and issues that should be addressed in future research. I briefly discuss the most pressing ones here. First, the equal weight placed on the five dimensions in my conceptualization may not hold true in the real world. Some claims may matter more than others, and which those are may be culturally dependent. While, I have focused on the five most important dimensions drawing from the classical and more recent literature on legitimacy, it is possible that additional dimensions or very niche sub-dimensions are what really matters in a specific country and that these are better measured with different data. And of course, a Weberian purist may prefer a model including only congruence in the personalist, ration-legal, and traditional dimension.

Second, the approach in this paper does not allow for estimates of individual-level appetite which is necessary to investigate the effects of congruence on individual-level behaviors and attitudes. On the country-level, this approach forces me to calculate congruence by subtracting *aggregated appetite* from the legitimation claims. It would have been preferable to subtract individual-level appetite from the legitimation claim and then *aggregate congruence* to the country-level, as this latter approach is better suited at incorporating polarized attitude into the measure.⁵ Consider an extreme example of two countries. In country A half of the population really like religious based rule, while the other half detest it. In country B everyone has a middling appetite for religious rule. Both country A and B claim legitimacy for their regime through religion just above a middling level. With an approach that *aggregates appetite*, country A and B are measured to be equally legitimate. With an approach that instead *aggregates congruence*, B is measured to be very legitimate, whilst A is not. Real world data is unlikely to be as polarized as in country A, yet the consequences of the two different approaches to calculating congruence deserve focus in future research.

Third, the country-level estimates of appetites impose a tyranny of the majority-problem on the measure. Not only does this risk hide polarization which is when we may actually expect the most trouble to hit rulers, driving up the cost of ruling, but it also masks potential differences of legitimacy beliefs among minority groups. Since we know that disgruntled minorities can pose substantial threats to rulers, such information may be particularly important. This is a weakness of the approach taken in this paper, but

⁵Legitimacy in any each dimension of legitimacy would then be estimated by: $Legitimacy_i = \frac{1}{N} \sum_{j=1}^N 1 - |Menu_i - Appetite_{ij}|$ where i indicates the dimension of legitimacy, N is the number of citizens, $Menu_i$ is the rulers claim in the i^{th} dimension and $Appetite_{ij}$ is the estimated appetite in the i^{th} dimension of the j^{th} citizen. Whereas overall legitimacy is simply: $Legitimacy = \sum_{i=1}^5 Legitimacy_i$

it can be addressed in single-country studies or in subset of countries where the same appetite indicators are available. Appetite and the corresponding level of congruence can be estimated for each individual after which congruence can be aggregated to any groups of interest. For example, to socio-economic, ethnic, or geographically bound groups.

Forth, the congruence framework implicitly makes the assumption that incongruence due *not getting what you want* equals getting something you do *not* want. This may or may not be true. It should, however, be testable if legitimacy is estimated at the individual level. It would require a nominal coding of congruence in each dimension, separating 1) congruence due to high appetite and high menu; 2) congruence due to low appetite and low menu; incongruence due to high appetite and low menu; and 4) incongruence due to low appetite and high menu. If 1) and 2), or 3) and 4) show very different empirical associations, then this is a problem to address. A related problem, which is more difficult to test is the potential conflation of people who do not want something because they hate it and those who do not want it because they simply do not care about it. In the event that you want religious rule and all you get is rulers who strictly disregard religious considerations, you may be equally disaffected as if you do not want religion to be part of politics but unfortunately that is what you get. However, in the latter case, if you do not want religious rule simply because you do not care, you will likely be less disaffected by receiving it.

Lastly, an issue worth bringing forth is measurement uncertainty. On both the menu and appetite side I rely on the point estimates from the IRT different models to estimate congruence. Yet these are only the mean estimates and the models also produce credible intervals that could be utilized in future research to calculate upper and lower bounds on the degree of congruence. In this first application of legitimacy as congruence, I have refrained from incorporating this due to the exponential increase in complexity.

These issues notwithstanding, I have demonstrated that it is valuable to conceptualize and measure legitimacy as the congruence of menus and appetites in five key dimensions and that this approach to legitimacy deserves to be further developed.

8 Conclusion

This paper is an initial attempt at presenting a novel understanding of legitimacy that is well-suited for comparative research. I have argued for conceptualizing legitimacy as the *congruence* between rulers' legitimation claims – their *menus of legitimation* – and the values and preferences – *the appetites* – of the ruled. Rulers provide a menu of justifications for their right to rule based on five dimensions: personalism; performance; rational-legal; ideology; and traditionalism. If we think of rulers as operating set menu-restaurants, the extent to which citizens have appetite for what is being served determines satisfaction. The better the menu matches the overall appetite, the higher legitimacy.

Importantly, no one dimension is necessarily needed for a regime to be perfectly legitimate. Some people do not want dessert, and its absence on the menu is then preferable. That is the essence of congruence theory and as I show in the paper, it is a particularly useful feature for overcoming some of the issues of past approaches to operationalize the concept.

I have discussed how existing measures of legitimacy suffer from three biases: a normative, a behavioral and a self-censorship-induced bias. Due to the relational approach, legitimacy as congruence is agnostic towards regime type - i.e., a regime can be perfectly legitimate by either relying fully or not at all at rational-legal claims - and thereby avoids the normative bias. Second, it does not rely on any behavioral indicators because we cannot infer “willing obedience” from actions – particularly not in repressive regimes. The third bias, stemming from self-censorship, is harder to overcome as it is necessary to include the opinions of the population that grants legitimacy to a regime. To mitigate the impact of this bias, I avoid indicators most prone to self-censorship, such as trust in the executive or the ruling party, and instead rely on survey items that allow respondents to retain some ambiguity regarding her support for the incumbent rulers.

I have operationalized legitimacy as congruence by matching expert-coded data on regime legitimation claims with public opinion data tapping into citizens’ appetite for the five dimensions of legitimacy. After calculating the congruence in each dimension, I create an additive index of overall legitimacy as congruence which can be used for country-level analysis. I have employed this measure in an empirical application that tests legitimacy’s relationship with two key outcomes for which the literature has strong expectations: political stability and state repression. I show that in line with the theoretical expectations, rulers offering a menu that matches poorly with their citizens’ appetite are less politically stable and use more repression to stay in power. Conversely, rulers in regimes with a better match between menu and appetite are more stable and use less repression.

I consider the robust relationship with political stability and state repression as the ultimate validation of my approach. I have shown that it is possible to conceptualize and operationalize legitimacy as congruence, and I hope to have added to the rich field of research on legitimacy by opening up a new avenue of research on congruence and its consequences.

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Appendix A - Empirical application

Dependent variables

Repression: To get at general political repression I use the inverse of Fariss' (2014) human rights protection score to measure repression, which uses an IRT model to estimate human rights protection using a large set of datasets including data on political killings, imprisonment, torture, mass repression, executions etc. The repression data is available up until 2019. *Political Stability*: To measure political stability I use the World Bank's Worldwide Governance Indicator for "Political Stability and Absence of Violence/Terrorism", which measures perceptions of the likelihood of political instability and/or politically motivated violence, including terrorism, using some 25 underlying variables (see Kaufmann, Kraay, and Mastruzzi (2009) for details). The data is available up until 2019.

Control variables

GDP per capita, economic growth and Population size: Economic and demographic data are taken from the World Bank's World Development Indicators (World Bank 2020), including data up until 2019.

Electoral democracy: To control for democratic institutions I use V-Dem's Electoral Democracy Index which seeks to measure the extent to which the ideal of electoral democracy achieved. The index includes information on the freeness and fairness of elections, freedom of association and expression, and suffrage, with data available up until 2020. See Coppedge et al. (2021) for details.

Civil and International conflict: To control for civil and international conflict I follow Frantz et al. (2020) and recode the occurrence of civil and international conflict from the UCDP/PRIO Armed Conflict Dataset version 21.1 (Gleditsch et al. 2002) into country-year format where each variable takes 0 for no conflict or 1 for the existence of civil or international conflict. Data is available up until 2020.

Appendix B - Summary statistics

Table: Summary statistics

Table 10: Summary Statistics

Variable	N	Mean	Sd	Min	Max
Legitimacy	2281	0.679	0.088	0.386	0.904
Trust	3186	0.412	0.17	0	1
Political stability	2422	-0.054	0.947	-3.181	1.76
Repression	3053	-0.811	1.549	-5.336	2.358
GDP pc (log)	3080	9.365	1.034	6.48	11.35
GDP growth	2948	0.028	0.031	-0.198	0.214
Population (log)	3208	16.446	1.607	12.203	21.055
Electoral Democracy Index	3254	0.635	0.24	0.015	0.919
Civil conflict	3252	0.132	0.338	0	1
International conflict	3254	0.014	0.119	0	1
Appetite personalism	2621	0.454	0.18	0	1
Appetite performance	3080	0.574	0.175	0	1
Appetite procedural	2699	0.445	0.173	0	1
Appetite ideology	3193	0.449	0.195	0	1
Appetite religion	2472	0.549	0.18	0	1
menu personalism	3251	0.38	0.293	0	1
menu performance	3234	0.716	0.153	0.089	0.988
menu procedure	3234	0.714	0.155	0.073	1
menu religion	3254	0.1	0.194	0	0.981
menu ideology	3235	0.147	0.212	0	0.999
congruence personalism	2618	0.725	0.185	0.056	1
congruence performance	3060	0.776	0.16	0.24	0.999
congruence procedural	2695	0.708	0.187	0.14	1
congruence ideology	3174	0.664	0.196	0.156	1
congruence traditional	2472	0.542	0.199	0.065	1

Appendix C: Survey Questions

Survey Items and Coding Decisions

The following tables list all 111 unique survey items used to estimate appetite in the five dimensions: personalism; performance; rational-legal; ideology; and tradition. I gathered all plausible items tapping into the different dimensions from 8 major cross national survey projects. To be included, items have to have been fielded in a minimum of two countries in to separate years. Note that items that are fielded by different survey projects are always treated as distinct items, even when the question wording is identical or close to identical. This is to enable the inclusion of item-bias parameters in the model (see manuscript section *Model specification*). For the binominal IRT model individual survey responses have to be recoded into binary responses. The tables detail the coding decision for coding a respondents answer as 1 (i.e. having appetite in that particular dimension). For items where respondents are asked to choose between two statements I have highlighted to statement in *italic* with which agreement constitutes appetite.

Table 11: Items used to estimate appetite for personalism

Project	Question item	Responses coded as 1
Afro-barometer	There are many ways to govern a country. Would you disapprove or approve of the following alternatives? <i>Elections and Parliament are abolished so that the president can decide everything</i>	Approve; Strongly Approve
Afro-barometer	Which of the following statements is closest to your views? A: The members of Parliament represent the people; therefore they should make laws for this country, even if the President does not agree. <i>B: Since the President represents all of us, he should pass laws without worrying about what Parliament thinks.</i>	Agree with B; Agree Very Strongly with B
Afro-barometer	<i>Since the President was elected to lead the country, he should not be bound by laws or court decisions that he thinks are wrong</i>	Agree with A; Agree Very Strongly with A
Afro-barometer	Which of the following statements is closest to your view? Statement A: Parliament should ensure that the President explains to it on a regular basis how his/her government spends taxpayers' money. Statement B: <i>The President should be able to devote his/her full attention to developing the country rather than wasting time justifying his actions.</i>	Agree with B; Agree Very Strongly with B
Afro-barometer	Which of the following statements is closest to your views? Choose Statement A or Statement B. A: <i>The President of [country] should be able to serve as many terms in office as he wishes.</i> B: In [country], the President must obey the law, including the constitution, for example by serving no more than two terms in office.	Agree with B; Agree Very Strongly with B
Arab-barometer	Would you say it is a very good, fairly good, fairly bad or very bad way of governing [country]? <i>A strong non-democratic leader that does not bother with parliament and elections</i>	Very good; good

Project	Question item	Responses coded as 1
Arab-barometer	Would you say it is a very good, fairly good, fairly bad or very bad way of governing [country]? <i>A system that is a mixture of the above three [accountability, experts and strong non democratic ruler] under one ruler</i>	Very good; good
Arab-barometer	I will describe different political systems to you, and I want to ask you about your opinion of each one of them with regard to the country's governance – for each one would you say it is very good, good, bad, or very bad? <i>A political system with an authoritarian president (non-democratic) who is indifferent to parliament and elections.</i>	Very good; good
Asian-barometer	We should get rid of parliament and elections and have a strong leader decide things	Strongly agree; agree
Asian-barometer	If we have political leaders who are morally upright, we can let them decide everything	Strongly agree; agree
Asian-barometer	The most important thing for political leaders is to accomplish their goals even if they have to ignore the established procedure	Strongly agree; agree
LAPOP	There are people who say that we need a strong leader who does not have to be elected by the vote of the people	We need a strong leader who does not have to be elected by the vote of the people
LAPOP	When the Congress hinders the work of our government, our presidents should govern without the Congress. How much do you agree or disagree with that view?	> 4 (7=Strongly agree)
LAPOP	When the Supreme Court hinders the work of our government, our presidents should ignore it. How much do you agree or disagree with that view?	> 4 (7=Strongly agree)
Latino-barometer	A decisive leader to resolve our problems	Strongly agree; agree
Latino-barometer	In case of difficulties it is right for the president to control the media	Strongly agree; agree
Latino-barometer	I prefer democracy to a leader with all the power not limited by law	Strongly disagree; disagree
Latino-barometer	In case of difficulties: The president should not be limited by the law	Strongly agree; agree
Latino-barometer	The president puts the Congress and parties to the side. If the country experiences serious difficulties	Strongly agree; agree
PEW	Some feel that we should rely on a democratic form of government to solve our country's problems. <i>Others feel that we should rely on a leader with a strong hand to solve our country's problems. Which comes closer to your opinion?"</i>	Strong leader
PEW	For each one, would it be a very good, somewhat good, somewhat bad or very bad way of governing this country? <i>system in which a strong leader can make decisions without interference from parliament or the courts</i>	Very good; Somewhat good
European Values Study	Having a strong leader who does not have to bother with parliament and elections	Very good; fairly good

Project	Question item	Responses coded as 1
World Values Survey	Having a strong leader who does not have to bother with parliament and elections	Very good; fairly good

Table 12: Items used to estimate appetite for performance

Project	Question item	Responses coded as 1
Afro-barometer	Which of the following statements is closest to your view? Statement A: Parliament should ensure that the President explains to it on a regular basis how his/her government spends taxpayers' money. Statement B: <i>The President should be able to devote his/her full attention to developing the country rather than wasting time justifying his actions.</i>	Agree with B; Agree Very Strongly with B
Afro-barometer	Which of the following statements is closest to your view? 1: <i>It is more important to have a government that can get things done, even if we have no influence over what it does.</i> Statement 2: It is more important for citizens to be able to hold government accountable, even if that means it makes decisions more slowly.	Agree with 1; Agree Very Strongly with 1
Afro-barometer	Which of the following statements is closest to your view? 1: <i>It is more important to have a government that can get things done, even if we have no influence over what it does.</i> Statement 2: It is more important for citizens to be able to hold government accountable, even if that means it makes decisions more slowly*.	Agree with 1; Agree Very Strongly with 1
Arab-barometer	To what extent do you agree or disagree with the following statements? <i>Under a democratic system, the country's economic performance is weak.</i>	Strongly agree; agree
Arab-barometer	Would you say it is a very good, fairly good, fairly bad or very bad way of governing [country]? <i>Having experts rather than government make decisions according to what is best for the country</i>	Very good; good
Arab-barometer	To what extent you think these systems would be appropriate for your country? <i>A government that provides for the needs of its citizens without giving them the right to participate in the political process</i>	Completely Suitable; Suitable
Asian-barometer	If you had to choose between democracy and economic development, which would you say is more important?	Economic development is definitely more important; Economic development is somewhat more important
Asian-barometer LAPOP	We should get rid of elections and parliaments and have experts make decisions on behalf of the people In your opinion, what should be given higher priority—protecting the environment, or promoting economic growth?	Strongly agree; agree Promote economic growth

Project	Question item	Responses coded as 1
LAPOP	Do you think that our country needs a government with an iron fist, or do you think that problems can be resolved with everyone's participation?	Iron fist
Latino-barometer	I wouldn't mind if an undemocratic government came to power if it solved the economic problems of our country	Strongly agree; agree
Latino-barometer	We should get rid of elections and parliaments and have experts make decisions on behalf of the people	Strongly agree; agree
Latino-barometer	If you had to choose between democracy and economic development, which would you say is more important?	Economic development is more important
PEW	If you had to choose between a good democracy or a strong economy, which would you say is more important?	A strong economy
PEW	Experts, not elected officials, make decisions according to what they think is best for the country	Very good; Somewhat good
European Values Study	In a democracy the economy runs poorly	Agree strongly; agree
European Values Study	Having experts, not government, make decisions according to what they think is best for the country	Very good; fairly good
World Values Survey	In a democracy the economy runs poorly	Agree strongly; agree
World Values Survey	Having experts, not government, make decisions according to what they think is best for the country	Very good; fairly good

Table 13: Items used to estimate appetite for rational-legal rule

Project	Question item	Responses coded as 1
Afro-barometer	Which of these three statements is closest to your own opinion?	Democracy is preferable to any other kind of government
Afro-barometer	Which of the following statements is closest to your view? Since the President/Prime Minister was elected to lead the country, he should not be bound by laws or court decisions that he thinks are wrong.	
	B: <i>The President/Prime Minister must always obey the laws and the courts, even if he thinks they are wrong.</i>	Agree with B; Agree Very Strongly with B

Project	Question item	Responses coded as 1
Afro-barometer	Which of the following statements is closest to your view? 1: It is more important to have a government that can get things done, even if we have no influence over what it does. Statement 2: It is more important for citizens to be able to hold government accountable, even if that means it makes decisions more slowly.	Agree with 2; Agree Very Strongly with 2
Afrobarometer	Which of the following statements is closest to your view? A: <i>We should choose our leaders in this country through regular, open and honest elections.</i> B: Since elections sometimes produce bad results, we should adopt other methods for choosing this country's leaders.	Agree with 1; Agree Very Strongly with 1
Arab-barometer	Democracy may have its problems but is better than any other form of government	Strong agree; Agree
Arab-barometer	Would you say it is a very good, fairly good, fairly bad or very bad way of governing [country]? Having a democratic political system (public freedom, equal political and civil rights, balance of power, accountability and transparency)	Very good; good
Arab-barometer	To what degree would you agree that the violation of human rights in [country] is justifiable in the name of promoting security and stability?	Not justified at all
Asian-barometer	Which of the following statements comes closest to your own opinion?	Democracy is always preferable to any other kind of government
Asian-barometer	When judges decide important cases, they should accept the view of the executive branch	Strongly disagree; disagree
Asian-barometer	It is ok for the government to disregard the law in order to deal with the situation, when the country is facing a difficult situation	Strongly disagree; disagree
Asian-barometer	The most important thing for political leaders is to accomplish their goals even if they have to ignore the established procedure	Strongly disagree; disagree
LAPOP	When the Supreme Court hinders the work of our government, our presidents should ignore it. How much do you agree or disagree with that view?	< 4 (1=Strongly disagree)
LAPOP	When the Congress hinders the work of our government, our presidents should govern without the Congress. How much do you agree or disagree with that view?	< 4 (1=Strongly disagree)
LAPOP	Do you think that our country needs a government with an iron fist, or do you think that problems can be resolved with everyone's participation?	Everyone's Participation
LAPOP	Others say that although things may not work, electoral democracy, or the popular vote, is always best.	Electoral democracy is the best
Latino-barometer	Which of the following statements do you agree with most?	Democracy is preferable to any other kind of government
Latino-barometer	When there is a difficult situation, it is ok for the government to disregard the law, parliament and/ or the institutions in order to deal with the situation	Strongly agree; agree
Latino-barometer	I prefer democracy to a leader with all the power not limited by law	Strongly agree; agree
Latino-barometer	In case of difficulties: The president should not be limited by the law	Strongly disagree; disagree

Project	Question item	Responses coded as 1
Latino-barometer	The president puts the Congress and parties to the side. If the country experiences serious difficulties	Strongly disagree; disagree
PEW	Which of the following statements comes closest to your own opinion? Democracy is preferable to any other kind of government	Democracy is preferable to any other kind of government
PEW	democratic system where representatives elected by citizens decide what becomes law	Very good; Somewhat good
European Values Survey	Having a democratic political system	Very good; fairly good
World Values Survey	Having a democratic political system	Very good; fairly good

Table 14: Items used to estimate appetite for socialist/communist ideology

Project	Question item	Responses coded as 1
Arab-barometer	Some people feel that labor strikes and demonstrations are legitimate tools for the workers to guarantee justice in the workers' relations with the employers. Some other people feel that labor strikes and demonstrations are sectarian demands that harm the economy needlessly, while others take a position in the middle between the two.	< 3
Asian-barometer	If you had to choose between reducing economic inequality and protecting political freedom, which would you say is more important?"	Reducing economic inequality is definitely [
Asian-barometer	Only one political party should be allowed to stand for election and hold of office	Strongly disagree; disagree
Afro-barometer	There are many ways to govern a country. Would you disapprove or approve of the following alternatives? Only one political party is allowed to stand for election and hold office	Strongly approve; approve
LAPOP	According to the meaning that the terms "left" and "right" have for you, and thinking of your own political leanings, where would you place yourself this scale?	
Latinobarometer	In politics, people normally speak of "left" and "right". On a scale where 0 is left and 10 is right, where would you place yourself?	
Latino-barometer	The market economy is the only system with which the country can become a developed country	Very much disagree; disagree
Latino-barometer	Market economy is best for the country	Disagree; Strongly disagree
PEW	Some people talk about politics in terms of left, center and right. On a left-right scale from 0 to 6, with 0 indicating extreme left and 6 indicating extreme right, where would you place yourself?"	< 2

Project	Question item	Responses coded as 1
LAPOP	Do you think that our country needs a government with an iron fist, or do you think that problems can be resolved with everyone's participation?	Iron fist
Latino-barometer	I wouldn't mind if an undemocratic government came to power if it solved the economic problems of our country	Strongly agree; agree
Latino-barometer	We should get rid of elections and parliaments and have experts make decisions on behalf of the people	Strongly agree; agree
Latino-barometer	If you had to choose between democracy and economic development, which would you say is more important?	Economic development is more important
PEW	If you had to choose between a good democracy or a strong economy, which would you say is more important?	A strong economy
PEW	Experts, not elected officials, make decisions according to what they think is best for the country	Very good; Somewhat good
European Values Study	In a democracy the economy runs poorly	Agree strongly; agree
European Values Study	Having experts, not government, make decisions according to what they think is best for the country	Very good; fairly good
World Values Survey	In a democracy the economy runs poorly	Agree strongly; agree
World Values Survey	Having experts, not government, make decisions according to what they think is best for the country	Very good; fairly good

Table 13: Items used to estimate appetite for rational-legal rule

Project	Question item	Responses coded as 1
Afro-barometer	Which of these three statements is closest to your own opinion?	Democracy is preferable to any other kind of government
Afro-barometer	Which of the following statements is closest to your view? Since the President/Prime Minister was elected to lead the country, he should not be bound by laws or court decisions that he thinks are wrong.	
	<i>B: The President/Prime Minister must always obey the laws and the courts, even if he thinks they are wrong.</i>	Agree with B; Agree Very Strongly with B

Project	Question item	Responses coded as 1
Afro-barometer	Which of the following statements is closest to your view? 1: It is more important to have a government that can get things done, even if we have no influence over what it does. Statement 2: It is more important for citizens to be able to hold government accountable, even if that means it makes decisions more slowly.	Agree with 2; Agree Very Strongly with 2
Afrobarometer	Which of the following statements is closest to your view? A: <i>We should choose our leaders in this country through regular, open and honest elections.</i> B: Since elections sometimes produce bad results, we should adopt other methods for choosing this country's leaders.	Agree with 1; Agree Very Strongly with 1
Arab-barometer	Democracy may have its problems but is better than any other form of government	Strong agree; Agree
Arab-barometer	Would you say it is a very good, fairly good, fairly bad or very bad way of governing [country]? Having a democratic political system (public freedom, equal political and civil rights, balance of power, accountability and transparency)	Very good; good
Arab-barometer	To what degree would you agree that the violation of human rights in [country] is justifiable in the name of promoting security and stability?	Not justified at all
Asian-barometer	Which of the following statements comes closest to your own opinion?	Democracy is always preferable to any other kind of government
Asian-barometer	When judges decide important cases, they should accept the view of the executive branch	Strongly disagree; disagree
Asian-barometer	It is ok for the government to disregard the law in order to deal with the situation, when the country is facing a difficult situation	Strongly disagree; disagree
Asian-barometer	The most important thing for political leaders is to accomplish their goals even if they have to ignore the established procedure	Strongly disagree; disagree
LAPOP	When the Supreme Court hinders the work of our government, our presidents should ignore it. How much do you agree or disagree with that view?	< 4 (1=Strongly disagree)
LAPOP	When the Congress hinders the work of our government, our presidents should govern without the Congress. How much do you agree or disagree with that view?	< 4 (1=Strongly disagree)
LAPOP	Do you think that our country needs a government with an iron fist, or do you think that problems can be resolved with everyone's participation?	Everyone's Participation
LAPOP	Others say that although things may not work, electoral democracy, or the popular vote, is always best.	Electoral democracy is the best
Latino-barometer	Which of the following statements do you agree with most?	Democracy is preferable to any other kind of government
Latino-barometer	When there is a difficult situation, it is ok for the government to disregard the law, parliament and/ or the institutions in order to deal with the situation	Strongly agree; agree
Latino-barometer	I prefer democracy to a leader with all the power not limited by law	Strongly agree; agree
Latino-barometer	In case of difficulties: The president should not be limited by the law	Strongly disagree; disagree

Project	Question item	Responses coded as 1
Latino-barometer	The president puts the Congress and parties to the side. If the country experiences serious difficulties	Strongly disagree; disagree
PEW	Which of the following statements comes closest to your own opinion? Democracy is preferable to any other kind of government	Democracy is preferable to any other kind of government
PEW	democratic system where representatives elected by citizens decide what becomes law	Very good; Somewhat good
European Values Survey	Having a democratic political system	Very good; fairly good
World Values Survey	Having a democratic political system	Very good; fairly good

Table 14: Items used to estimate appetite for socialist/communist ideology

Project	Question item	Responses coded as 1
Arab-barometer	Some people feel that labor strikes and demonstrations are legitimate tools for the workers to guarantee justice in the workers' relations with the employers. Some other people feel that labor strikes and demonstrations are sectarian demands that harm the economy needlessly, while others take a position in the middle between the two.	< 3
Asian-barometer	If you had to choose between reducing economic inequality and protecting political freedom, which would you say is more important?"	Reducing economic inequality is definitely [
Asian-barometer	Only one political party should be allowed to stand for election and hold of office	Strongly disagree; disagree
Afro-barometer	There are many ways to govern a country. Would you disapprove or approve of the following alternatives? Only one political party is allowed to stand for election and hold office	Strongly approve; approve
LAPOP	According to the meaning that the terms "left" and "right" have for you, and thinking of your own political leanings, where would you place yourself this scale?	
Latinobarometer	In politics, people normally speak of "left" and "right". On a scale where 0 is left and 10 is right, where would you place yourself?	
Latino-barometer	The market economy is the only system with which the country can become a developed country	Very much disagree; disagree
Latino-barometer	Market economy is best for the country	Disagree; Strongly disagree
PEW	Some people talk about politics in terms of left, center and right. On a left-right scale from 0 to 6, with 0 indicating extreme left and 6 indicating extreme right, where would you place yourself?"	< 2

Project	Question item	Responses coded as 1
PEW	Please tell me whether you completely agree, mostly agree, mostly disagree or completely disagree with the following statements-Most people are better off in a free market economy, even though some people are rich and some are poor	Completely disagree; Mostly disagree
European Values Study	In political matters, people talk of “the left” and “the right.” How would you place your views on this scale, generally speaking?	
European Values Study	How would you place your views on this scale? 1 = Private ownership of business should be increased; 10 = Government ownership of business should be increased	> 6
World Values Survey	In political matters, people talk of “the left” and “the right.” How would you place your views on this scale, generally speaking?	< 4 (1 = Left)
World Values Survey	How would you place your views on this scale? 1 = Private ownership of business should be increased; 10 = Government ownership of business should be increased	> 6

Table 15: Items used to estimate appetite for traditional-religious rule

Project	Question item	Responses coded as 1
Arab-barometer	In general, would you describe yourself as: Relegious; In between; Not religious; Other	Religious
Arab-barometer	How often do you read the Quran?	Everyday or almost everyday; Several times a week
Arab-barometer	Men of religion should have influence over the decisions of government	Strongly agree; agree
Arab-barometer	Men of religion should not influence how people vote in elections	Strongly disagree; disagree
Arab-barometer	It would be better for [respondent’s country] if more people with strong religious beliefs held public office	Strongly agree; agree
Arab-barometer	The government and parliament should enact laws in accordance with Islamic law	Strongly agree; agree
Afro-barometer	Excluding weddings and funerals, how often do you attend religious services?	About once a week; More than once a week
Afro-barometer	Could you tell me whether you are an official leader, an active member, an inactive member, or not a member: A religious group (e.g., church, mosque)?	Active member; Official leader
Afro-barometer	What extent you agree or disagree with each of the following statements: The country is better off if religious people hold public positions in the state?*	Strongly Agree; Agree
Afro-barometer	What extent you agree or disagree with each of the following statements: Religious leaders like imams, preachers and priests should not interfere in voters decisions in elections?	Strongly disagree; disagree
Asian-barometer	Would you describe yourself as very religious, moderately religious, lightly religious, not religious at all?	Very religious

Project	Question item	Responses coded as 1
Asian-barometer	About how often do you practice religious services or rituals these days?	Several times a day; Once a day; Several times a week; Once a week
Asian-barometer	The government should consult religious authorities when interpreting the law?	Strongly agree; agree
LAPOP	Could you please tell me how important is religion in your life?	Very important
LAPOP	Please tell me if you attend meetings of these organizations at least once a week, once or twice a month, once or twice a year, or never. Meetings of and religious organization? Do you attend them:	Once a week
Latino-barometer	How [religious] would you describe yourself?	Very devout
Latino-barometer	How [religious] would you describe yourself?	A religious person
Latino-barometer	How frequently do you go to church to attend a religious service, excluding christenings, weddings and funerals?	More than once a week
PEW	How important is religion in your life – very important, somewhat important, not too important, or not at all important?	Very important
PEW	People practice their religion in different ways. Outside of attending religious services, do you pray several times a day, once a day, a few times a week, once a week or less, or never?	Several times a day; Once a day
PEW	Aside from weddings and funerals how often do you attend religious services? more than once a week, once a week, once or twice a month, a few times a year, seldom, or never?"	More than once a week; once a week
European Values Study	Religious leaders should not influence government	Disagree strongly; Disagree
European Values Study	Religious leaders should not influence how people vote	Disagree strongly; Disagree
European Values Study	Politicians who don't believe in God are unfit for public office	Agree strongly; Agree
European Values Study	Better if more people with strong religious beliefs in public office	Agree strongly; Agree
European Values Study	Having a system governed by religious law in which there are no political parties or elections	Very good; fairly good
World Values Survey	Religious leaders should not influence government	Disagree strongly; Disagree
World Values Survey	Religious leaders should not influence how people vote	Disagree strongly; Disagree
World Values Survey	Politicians who don't believe in God are unfit for public office	Agree strongly; Agree
World Values Survey	Better if more people with strong religious beliefs in public office	Agree strongly; Agree
World Values Survey	Having a system governed by religious law in which there are no political parties or elections	Very good; fairly good

Appendix D

Survey items - Trust

In total, responses from 1.7 million respondents nested within 1217 nationally representative surveys fielded across 147 countries between 1989 and 2020, are utilized to estimate smooth country-year panels of political trust. 54 unique items are used to estimate latent trust, including data from all survey projects used for the appetite data, with the exception of PEW, which have not include trust or confidence items.

Table 16: Items used to estimate latent trust

Project	Question item	Responses coded as 1
Afro- barometer	The President / Prime Minister	Somewhat; A lot
Afro- barometer	Parliament	Somewhat; A lot
Afro- barometer	Your Metropolitan, Municipal or District Assembly	Somewhat; A lot
Afro- barometer	The Ruling Party	Somewhat; A lot
Afro- barometer	Courts of law	Somewhat; A lot
Afro- barometer	Police	Somewhat; A lot
Afro- barometer	Army	Somewhat; A lot
Arab- barometer	President/ Prime minister	Some trust; Great trust
Arab- barometer	Parliament	Some trust; Great trust
Arab- barometer	Local government	Some trust; Great trust
Arab- barometer	Regional government	Some trust; Great trust
Arab- barometer	Courts/legal system	Some trust; Great trust
Arab- barometer	Police	Some trust; Great trust
Arab- barometer	Army	Some trust; Great trust
Arab- barometer	National government	Some trust; Great trust
Arab- barometer	Civil service	Some trust; Great trust
Asian- barometer	The Executive (president or PM)	Quite a lot of trust; A great deal of trust
Asian- barometer	Parliament	Quite a lot of trust; A great deal of trust
Asian- barometer	Local government	Quite a lot of trust; A great deal of trust
Asian- barometer	Courts	Quite a lot of trust; A great deal of trust
Asian- barometer	Police	Quite a lot of trust; A great deal of trust
Asian- barometer	Army	Quite a lot of trust; A great deal of trust
Asian- barometer	The Civil service	Quite a lot of trust; A great deal of trust
Asian- barometer	National government	Quite a lot of trust; A great deal of trust
LAPOP	The Executive (president)	>4 (1 = "Not at all"; 7 = "A lot")
LAPOP	National legislature	>4 (1 = "Not at all"; 7 = "A lot")
LAPOP	The Government	>4 (1 = "Not at all"; 7 = "A lot")
LAPOP	Local Government	>4 (1 = "Not at all"; 7 = "A lot")
LAPOP	Regional Government	>4 (1 = "Not at all"; 7 = "A lot")
LAPOP	Judicial system	>4 (1 = "Not at all"; 7 = "A lot")
LAPOP	National police	>4 (1 = "Not at all"; 7 = "A lot")
LAPOP	Armed forces	>4 (1 = "Not at all"; 7 = "A lot")
Latino- barometer	President	Some; A lot
Latino- barometer	Parliament	Some; A lot
Latino- barometer	Government	Some; A lot
Latino- barometer	Local Government	Some; A lot
Latino- barometer	Judiciary	Some; A lot

Project	Question item	Responses coded as 1
Latino- barometer	Police	Some; A lot
Latino- barometer	Army	Some; A lot
Latino- barometer	Public administration	Some; A lot
Latino- barometer	The state	Some; A lot
European Values Study	Parliament	Quite a lot; A great deal
European Values Study	Local/regional government	Quite a lot; A great deal
European Values Study	Justice system/The courts	Quite a lot; A great deal
European Values Study	Police	Quite a lot; A great deal
European Values Study	Army	Quite a lot; A great deal
European Values Study	The government	Quite a lot; A great deal
European Values Study	Civil service	Quite a lot; A great deal
World Values Survey	Parliament	Quite a lot; A great deal
World Values Survey	Local/regional government	Quite a lot; A great deal
World Values Survey	Justice system/The courts	Quite a lot; A great deal
World Values Survey	Police	Quite a lot; A great deal
World Values Survey	Army	Quite a lot; A great deal
World Values Survey	The government	Quite a lot; A great deal
World Values Survey	Civil service	Quite a lot; A great deal

Appendix E

To enable a comparison, all variables are scaled by dividing by two standard deviations. For additional details on research design and model specifications see Tannenbergs (2021).

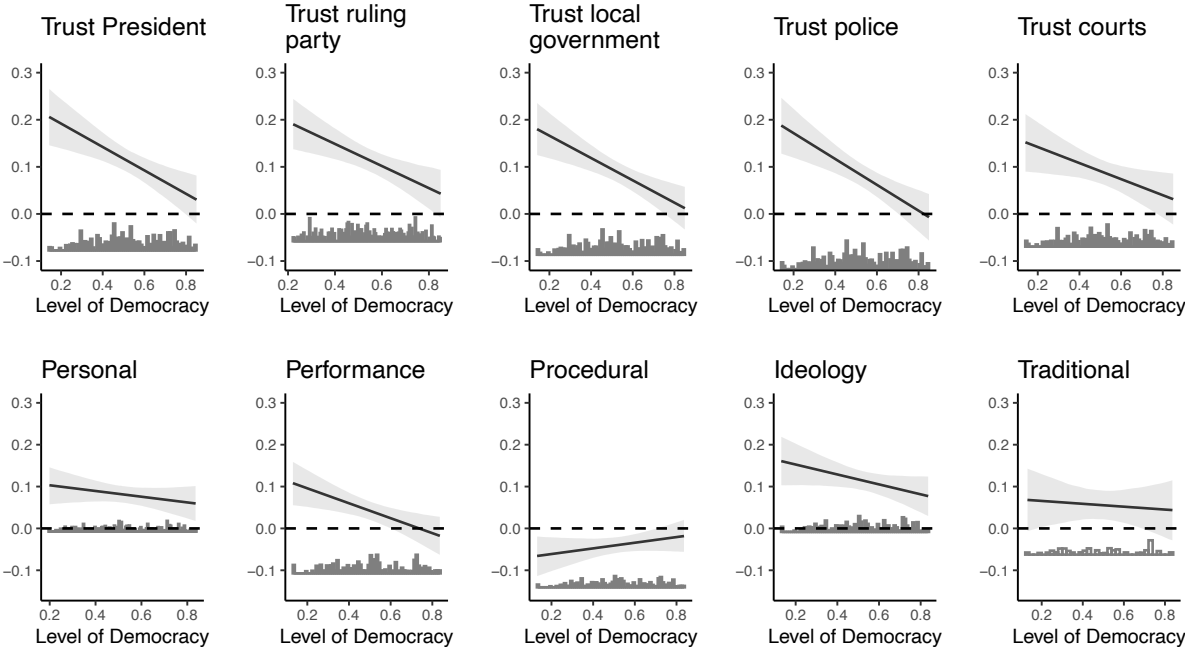


Figure 11: Self-censorship bias of measures used in the literature to measure legitimacy (first row) and the appetite measures (second row)