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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 Tannenberg, 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 (Tannenberg 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 premises 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

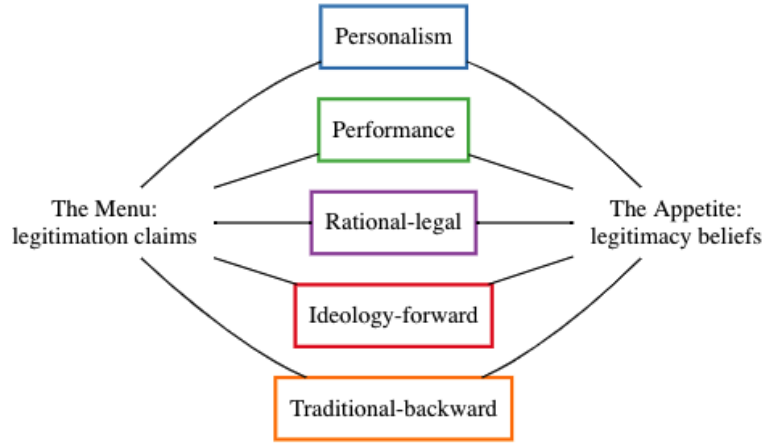


Figure 1: The Dimensions of Legitimacy

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 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 Tannenberget al. (2021).

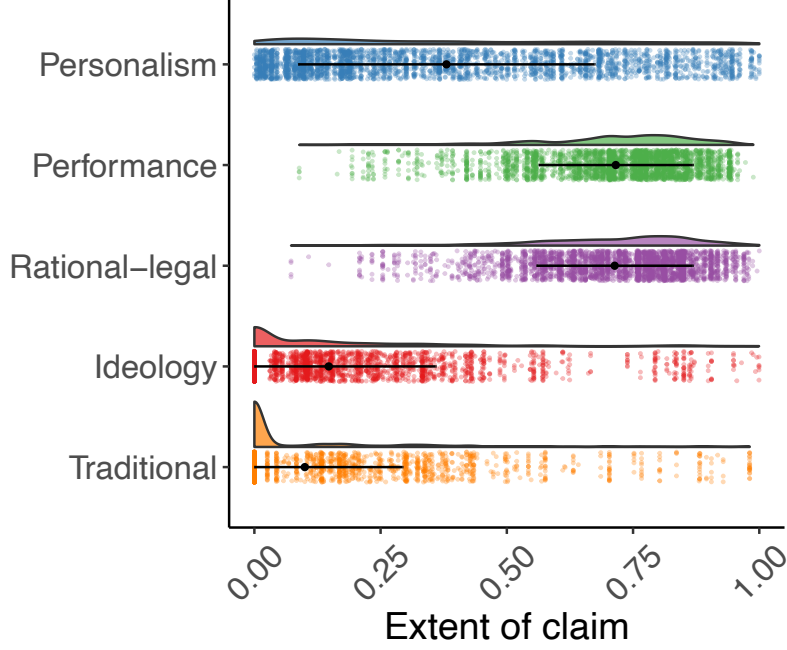


Figure 2: Distribution of extent of claims from the Menus of Legitimation

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

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 :

$$\alpha_{ikt} = \eta\phi_{ikt}$$

$$\beta_{ikt} = \phi(1 - \eta_{ikt})$$

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****

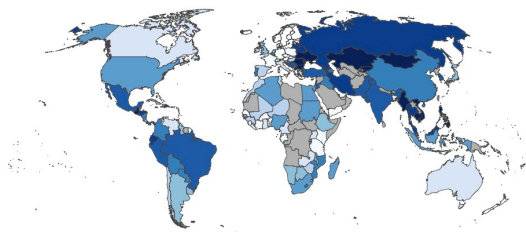
Table 5: Correlation matrix of appetite

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.

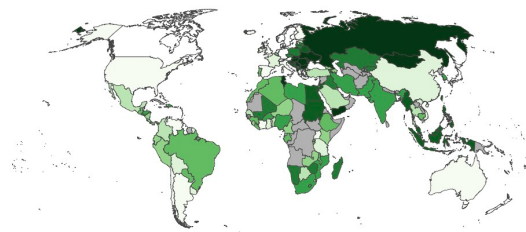
Average appetite in each dimension 2015 to 2020

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

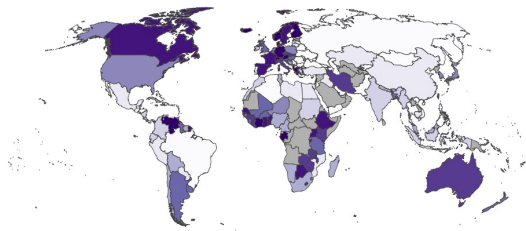
Personalism



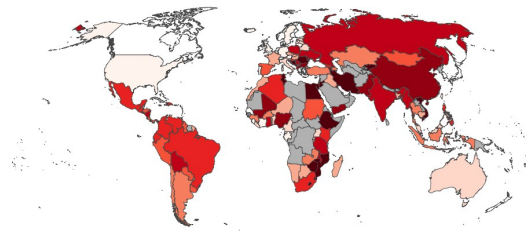
Performance



Rational-legal



Ideology-Communism



Traditional-Religion

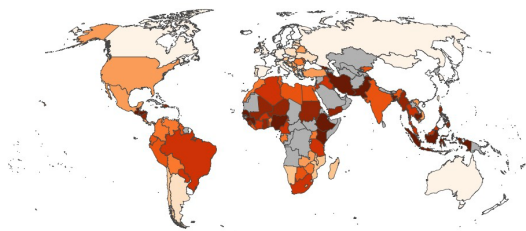


Figure 3: Average appetite around the world 2015 to 2020

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

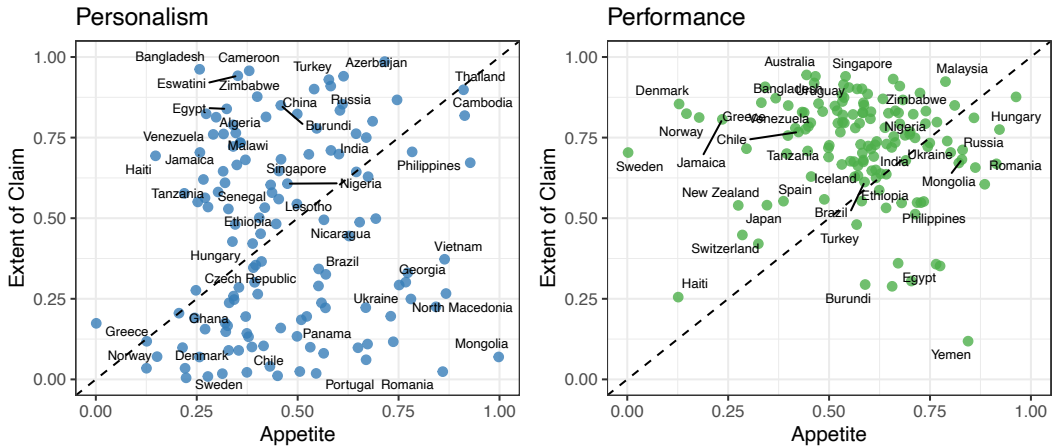


Figure 4: Source of (in)congruence: Personalism and Performance

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

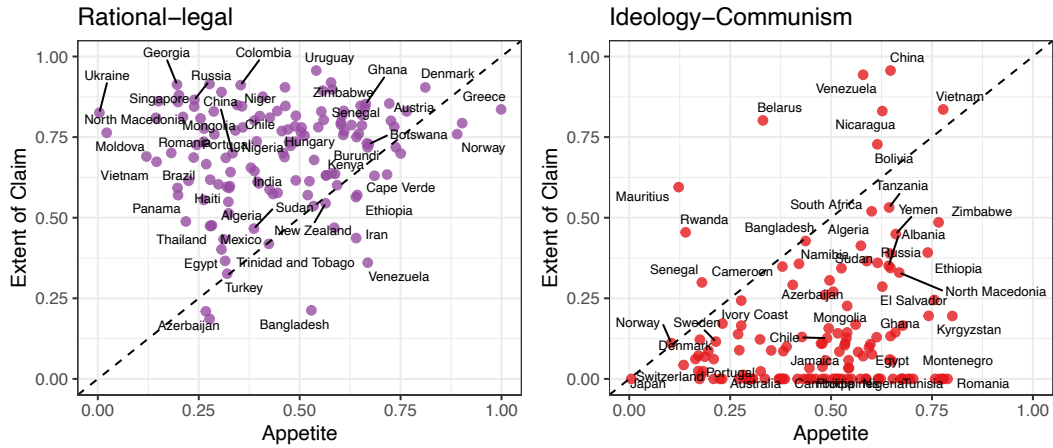


Figure 5: Source of (in)congruence: Rational-legal and Ideology

Relationship between Menu and Appetite 2015 to 2020

Dotted diagonal line indicates line of perfect congruence

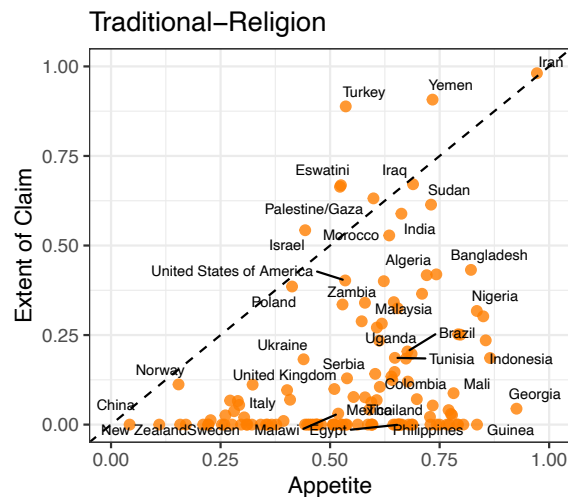


Figure 6: Source of (in)congruence: Traditional-Religion

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

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 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 Tannenberg (2021).

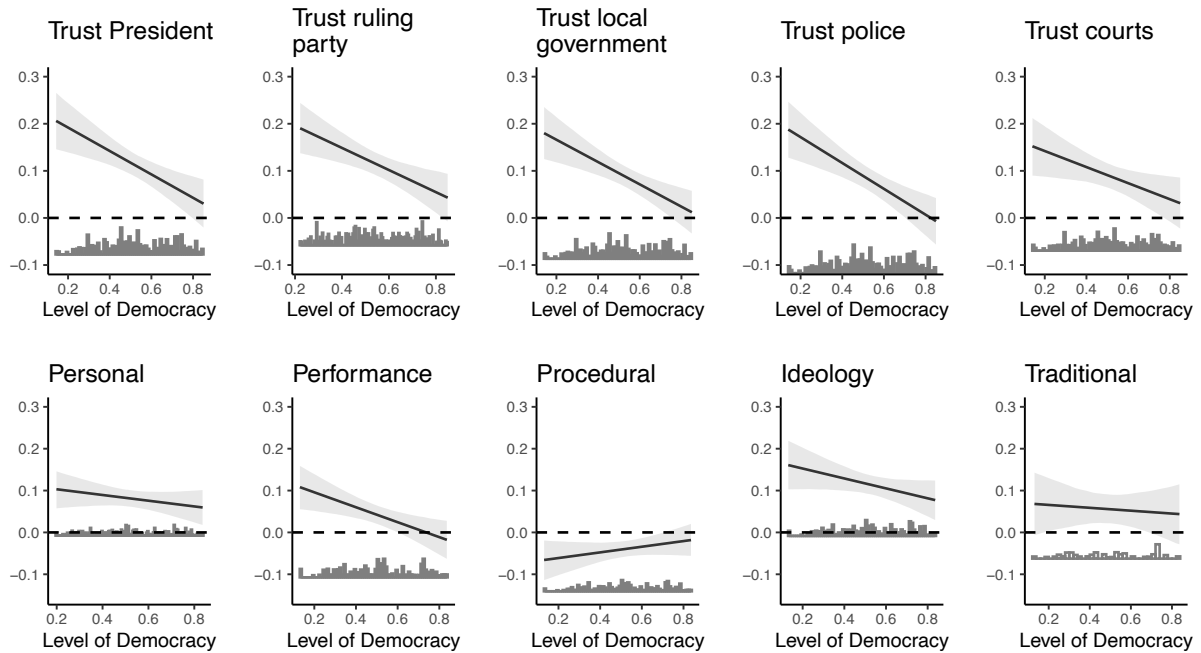


Figure 11: Self-censorship bias of measures used in the literature to measure legitimacy (first row) and the appetite measures (second row)