

Authoritarian regime types revisited: updated data in comparative perspective

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This article introduces a modified and updated version of the authoritarian regime type dataset first introduced by Hadenius and Teorell. The basic logic and merits of this dataset is presented, previously published criticism of the index is addressed and practical advice for potential users is provided. The dataset is also compared theoretically and empirically with the datasets provided by Cheibub *et al.*, and Geddes *et al.* It is argued that the choice of dataset is likely to have a substantial effect on the results of empirical research. The different datasets all have their respective strengths and weaknesses. However, our typology of authoritarianism distinguishes itself from the alternative categorisations in that it recognises the heterogeneous character of electoral regimes and provides a category corresponding to the theoretically interesting class of 'electoral authoritarian' regimes.

Keywords: authoritarian; democracy; dataset; regime type; classification

1. Introduction

Authoritarian regimes are often negatively defined as being regimes that do not meet certain criteria of democracy. Non-democratic regimes are not, however, a homogenous group, but employ different sets of institutions. These varying constellations of institutions may produce different outcomes and create distinct regime logics. For instance, research has suggested that some authoritarian regime types are more stable than others (Geddes 1999, Hadenius and Teorell 2007, Brownlee 2009), produce more economic growth (Wright 2008) or better quality of government (Charron and Lapuente 2011).

Several typologies exist for scholars interested in researching the differences between various authoritarian regime types (Cheibub *et al.* 2010, Geddes *et al.* 2012a). Much of this data has been made publically available and covers long periods of time. Although these resources can be very useful for a large variety of research projects, scholars must pay close attention to the theoretical and methodological peculiarities embedded in these different typologies.

In this article, we offer a new and updated version of the authoritarian regime dataset first introduced by Hadenius and Teorell (2007). Our new dataset (Hadenius *et al.* 2012, hereafter

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HTW) introduces some improvements on the original data and covers the time period 1972–2010. The article goes further than our previous work in explaining the theoretical underpinnings of the dataset and replies to some of the criticism that has been levelled against the typology. It also offers some concrete advice to scholars who wish to use this set of information in their own research.

Another aim of the article is to illuminate the theoretical and methodological differences between existing typologies of authoritarianism. The dataset is therefore compared to two other widely used classifications, those introduced by Geddes *et al.* (2012a) (hereafter GWF) and Cheibub *et al.* (2010) (hereafter CGV). The three typologies are also compared empirically. This inquiry shows that the choice of dataset is likely to have a significant impact on empirical results.

The article is organised as follows. We start by introducing the gist of our typology and respond to some criticism levelled against it. Second, we present our authoritarian regime types more thoroughly with respect to their theoretical foundation and in comparison to those proposed by GWF and CGV. Third, we discuss the issue of overlapping regime categories, or hybrids. Fourth, we present the results of a test on the empirical concurrence between our regime typology and those of GWF and CGV. We conclude by discussing some underdeveloped issues that deserve to be addressed in future work in this field.

2. Theoretical points of departure

At the core of our typology of different authoritarian regime types is a distinction between three different modes of accessing and maintaining political power, probably the three most prevalent throughout history: (1) hereditary succession, or lineage, (2) the actual or threatened use of military force and (3) popular elections. These three modes of power maintenance correspond to three generic types of regimes: monarchies, military regimes and electoral regimes. Within the third category, we also distinguish between different forms of electoral regimes, depending on varying institutionalisation of competition. Electoral regimes may allow multiparty competition (multiparty regimes), prohibit all parties from running (no-party regimes) or only allow the government party to take part in elections (one-party regimes).

Two features of this typological framework are particularly notable. The first is the typology's focus on the *institutional setup* of a regime. The identity or longevity of dictators is left out of the picture, as are the ideological stance of the regime and its source of legitimation (perceived or real). The second feature concerns the fact that the basic typology does not rely on a qualitative distinction between democracy and dictatorship. As stated above, an electoral regime that allows multiparty competition is a category that straddles this divide since it is based on a defining criterion that unites both democracies and multiparty autocracies. Yet, as this typology is focused on authoritarian regimes some additional criteria must be introduced to separate authoritarianism from democracy.

In this section, we elaborate these two points further and compare our typology to those of GWF and CGV.

2.1 Institutions under authoritarianism

Brownlee (2007) argues that our typology 'has the effect of fragmenting one regime into several' and that it 'departs from the conventional concepts of the comparative politics literature' (p. 520). Two examples in particular underlie this criticism: first, our distinction between a 'dominant' and a 'non-dominant' period of rule in Mexico under the PRI (Institutional Revolutionary Party); second, our division of the 'Marcos regime' in the Philippines into three periods

based on whether elections were held and, again, how 'dominant' the winning party was. Part of this argument could be dispelled by concentrating on the most parsimonious version of the regime classification, where no qualitative distinction is made between 'dominant' and 'nondominant' regimes, but where this difference is instead captured in continuous terms (see Section 4 below).

More importantly, Brownlee's (2007) criticism is predicated on the notion that the main characteristic of a 'regime' is the political identity of the ruling party (as in Mexico) or the dictator (as in the Philippines). Although the two examples used are probably an accurate depiction of how country-specific scholars conceive of 'regimes' in the cases of Mexico and the Philippines, this is not necessarily a good reason to hold on to that view when carrying out systematic, comparative research. Such an approach would imply, for example, that no regime change took place in Ghana in 1992, when the military dictator Rawlings ran in multiparty elections and won. In keeping with our institutional view, based on the way power is maintained, we thus contend that the name or identity of a party or a ruler is not a proper basis for regime classification.

With our institutional focus, we differ from both GWF and CGV in the very conceptualisation of what a regime is. Although GWF define regimes more generally as 'a set of basic formal and informal rules for choosing leaders and policies', it is clear from their practical applications of this conception that the 'identity of the group from which leaders can be selected' is at the core of the way they differentiate authoritarian regime types (Geddes *et al.* 2012b, p. 2, 26). CGV, in a similar vein, conceptualise regime types in terms of the 'inner sanctums where real decisions are made and potential rivals are kept under close scrutiny' (Cheibub *et al.* 2009, p. 18). Our approach, by contrast, is to determine regime type not so much in terms of the characteristics or social origins of the elites in question, but instead based on the *institutions* on which these elites rely in order to regulate the access to and maintenance of public authority. Such theoretical differences naturally give rise to the expectation that countries and regimes will be coded differently by the three approaches.

2.2 Separating democracy and autocracy

There has been a vivid debate on the theoretical and methodological merits of different measurements of democracy. One discussion has dealt with the question of whether democracy is a continuous or dichotomous variable (Collier and Adcock 1999, Elkins 2000, Munck and Verkuilen 2002). In our understanding, this is a controversy that can never be settled, as both approaches could be applied, for good reasons. The important thing is to recognise that they represent different aspects of reality.

From one perspective, democracy is an institutional quality that is principally a matter of degree. In this view, multiparty regimes can be placed on a democratic continuum, where the label 'authoritarian multiparty' represents a cluster of regimes on the lower end of the democratic spectrum, while 'democracies' are multiparty regimes at the higher end. This is normally the way the dependent variable is specified when changes in the relative level of democracy in various countries is under study (Teorell 2010, p. 32).

Yet from another perspective, a dichotomous approach would be called for. Studies of transitions from authoritarianism to democracy presuppose that some qualitative difference between the two forms of government can be established. This undertaking is hampered, however, by many difficulties. One has to do with the essential criteria for democracy and their contrariety.

2.2.1 Democratic criteria

GWF characterise undemocratic regimes as those where leaders and policies are chosen with

[A]ny means besides direct, reasonably fair, competitive elections in which at least ten percent of the total population was eligible to vote; or an indirect election by a body, at least 60 percent of which was elected in direct reasonably fair, competitive elections; or constitutional succession to a democratically elected executive. (Geddes *et al.* 2012a, p. 6)

For CGV, three criteria must be satisfied for a regime to be labelled democratic: (i) uncertainty, (ii) irreversibility and (iii) repeatability. To meet these criteria, a country must have a popularly elected legislature and chief executive (the latter must be at least indirectly selected). There must be more than one legal party and an alternation of power must have occurred under the same electoral rules that brought the incumbent into office (Cheibub *et al.* 2010, p. 69).

It is clear that these two sets of criteria imply different standards for democracy, both in regard to contestation and participation. For GWF, no large party should be prevented from running for election.¹ For CGV, however, it is enough if more than one party participates in elections. With respect to participation, CGV do not propose a lower threshold or a qualitative criterion regarding the actual size of the population which has the right to vote. For GWF, at least 10% of the population must be eligible to vote. Accordingly, a country could still be coded as democratic in both these typologies although a majority of the population is disenfranchised. In our view, not conditioning democracy on full suffrage is certainly a questionable position, hardly in line with conventional democratic theory (Dahl 1971, Hadenius 1992).

Both indices emphasise competition. GWF requires 'reasonably free and fair elections' for a country to be rated democratic. Among the criteria used to distinguish such elections, GWF mention that there should not be credible reports of vote fraud widespread enough to change election results, and the incumbent should not have dominated political resources to such an extent that observers consider an election unfair. These are appropriate conditions, but it is often difficult to make solid judgements about the fairness of elections, as conclusions must often be drawn based on fairly inconclusive modes of evidence (Hadenius 1992). It is problematic to rely on election reports to determine the fairness of elections. As argued by Kelley (2009), there are no shared standards for election monitors (neither between organisations nor for the same organisation over time). Highly flawed elections are often endorsed for a number of political reasons.

The 'alternation rule' suggested by CGV is questionable in itself. It might introduce both type I and type II errors to the measurement of democracy (Wahman forthcoming). On the one hand, this criterion could overstate the problems that exist. In most electoral systems – even under highly democratic conditions – incumbents tend to have an advantage (Erikson 1971, Cox and Morgenstern 1993). A long streak of electoral victories (as in the case of Franklin Roosevelt in the 1930s and 1940s) does not necessarily indicate electoral irregularities. On the other hand, the alternation rule may underestimate the actual problems. Even highly manipulated elections can result in alternation (Hadenius 1992, Bogaards 2007). Two examples illustrate this point. South Africa is still considered a civilian dictatorship in the CGV data (due to lack of alternation), whereas Kenya is regarded as having been a democracy since 1997, despite widespread accusations about the 2007 Kenyan election being stolen (Rutten and Owuor 2009). Moreover, despite CGV's aim of developing a parsimonious definition of democracy, the alternation rule negates the possibility of researching the connection between turnovers and democratisation in authoritarian regimes (Wahman forthcoming). In our view, the alternation rule is both

questionable in general terms and unreliable as a way of dealing with the problem of identifying electoral fraud.

2.2.2 The cutoff point

In addition to the lack of accord between the indices on the fundamental criteria for democracy vs. authoritarian rule, there is also no agreement about how the dividing line between the two, based on an aggregate of different components of democracy, should be determined. Drawing that line could therefore be a complicated undertaking. Yet important guidance might be found in the literature. To us, it makes sense to take stock of previous efforts to establish a cutoff point between authoritarian rule and democracy.

To find this threshold, we created a combined Freedom House (FH) and Polity scale. The scale represents the mean of the Polity and FH (political rights and civil liberty) scores, converted to a 0-10 scale (0 being the lowest level of democracy and 10 the highest). The reason for using both the FH and the Polity scales is to compensate for the respective weaknesses of these two indices (Hadenius and Teorell 2005). We then use this democracy scale to estimate the mean empirical cutoff point for five well-known categorical measures of democracy: Cheibub *et al.* (2010), Boix *et al.* (forthcoming) and Bernhard *et al.* (2001),² together with Polity's own categorical threshold for 'democracy' and FH's threshold for 'Electoral Democracy'. To determine the empirical threshold, we use our combined scale (i.e. the Polity/FH mean) to calculate the democracy level the year before a 'democratic breakdown' and the first year after a 'democratic transition'.

The results are presented in Table 1. As can be seen, the individual thresholds for the five sources vary from 6.57 (Cheibub *et al.* 2010) to 7.53 (Bernhard *et al.* 2001). The average threshold, across all measures, turns out to be 7.03 on the 0-10 combined Polity/FH scale. We therefore classify all countries with a democracy score of 7 or above as democratic and all countries with a democracy score below 7 as authoritarian.³

This threshold for democracy has been lowered since the original edition of our dataset (Hadenius and Teorell 2007), where the threshold was set to 7.5. The reason for this lower threshold is the replacement of some of the democracy categorisations used in the old version of the dataset. Most notably, the new version uses FH's less rigorous 'electoral democracy' category rather than the more demanding 'free' category.

Since this threshold is rather arbitrary, we have categorised all of the regimes up to the threshold of 7.5. We have also kept the democracy measure in the dataset to allow users to run robustness tests with varying thresholds. Given the varying estimations based on the

	Mean democracy score		
	Year before breakdown	Year after transition	Overall
Cheibub et al. (2010)	6.67	6.50	6.57
Boix <i>et al.</i> (forthcoming)	6.94	7.16	7.11
Bernhard et al. (2001)	7.04	7.71	7.53
FH	6.31	6.80	6.66
Polity IV	7.25	7.37	7.33
Total mean	6.81	7.10	7.03

Table 1. Cutoff estimation.

Notes: The democracy score represents the combined FH and Polity Score. The 7.03 mean is derived by estimating the mean of all years before breakdown and years after transition in all sources.

different democracy measures, we would advise users to run robustness tests using a 6.5-point threshold, 7-point threshold and a 7.5-point threshold.

3. Varieties of authoritarianism

We now turn to explaining how the different forms of authoritarianism in our typology are conceptualised and operationalised. We will start off with the non-electoral regime types and then discuss the authoritarian regimes with elections. We will also relate our categorisations and strategies for measurement to those of CGV and GWF. As will become clear, the most fundamental differences relate to the handling of the authoritarian regimes that hold elections.

The three regime typologies under comparison are presented in Table 2. This table also contains information that portrays a critical empirical difference across these datasets: their coverage. Whereas ours only covers the time period from 1972 onward,⁴ CGV's and GWF's extend all the way back to the Second World War. Moreover, our dataset and that of CGV have substantially better country coverage than that of GWF. At a maximum, CGV covers 198 countries in one year, HTW 195 and GWF 154. These differences must, of course, be taken into consideration when choosing among the three data sources.

3.1 Authoritarian regimes without elected legislatures

At first glance, the three indices under scrutiny in this paper are quite similar when dealing with non-electoral regime types. All three typologies recognise the important military and monarchy categories. However, the differences in the conceptualisation and operationalisation of these regime types are greater than one might think, especially when it comes to the military regime category.

In identifying military and monarchy regimes, we rely heavily on the codings in the widely used Banks and Wilson (2012) dataset.⁵ In some instances, corrections have been made and since information on these variables ends in 2006 other sources have been consulted for the classification of the most recent years.

Cheibub et al. (2010)	Geddes et al. (2012b)
Military dictatorship	Military
Royal dictatorship	Monarchy
Civilian dictatorship	Party
	Personalist
1946-2008	1946-2010
any year	
198	154
	Cheibub <i>et al.</i> (2010) Military dictatorship Royal dictatorship Civilian dictatorship 1946–2008 <i>any year</i> 198

Table 2.	Main	authoritarian	categories.
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Notes: The table shows the main authoritarian regime types. HTW and GWF also include hybrids of the main types. HTW include a democratic regime type, CGV include three different versions of democratic regimes and GWF also include a category of non-authoritarian regimes with five different categories.

3.1.1 Military regimes

Each of the three regime typologies covered in this paper include military regimes as a separate category. In Geddes' (1999) original article on the durability of authoritarian regimes, it was argued that the military regime type was the least stable version of authoritarianism. The author explains the instability of these regimes by referring to their sensitivity to internal splits, as military officers often prefer to leave power rather than to create intramural divisions.

We define military regimes as states 'in which military officers are major or predominant actors by virtue of their actual or threatened use of force' (Nordlinger 1977, p. 2). In these regimes, the armed forces control politics directly or indirectly (i.e. by directing civilian leaders behind the scenes). In contrast to CGV, we do not code all regimes with a former member of the armed forces as their head of state as being military in character. Merely noting the former occupation of the chief executive is undoubtedly an easy and transparent way of coding. However, it does not fit with the fundamental distinction between leadership and institutions underlying our typology. Burkina Faso is a good illustration of our argument. This country experienced a military coup in 1987, but the coup leader, President Blaise Compaoré, introduced multiparty elections in 1991, where he and his party prevailed. Although Compaoré had a military past, it is important to acknowledge this change in the institutions used to legitimise his rule.

Our basic understanding of military regimes is close to that of GWF. Like us, these authors do not automatically code all countries with a former military officer as the head of state as a military regime. However, a significant difference between our and CGV's typology, on the one hand, and the GWF coding, on the other, is that GWF combines a segment of civilian and military regimes into the common category of personalist regimes. According to Geddes (1999), the difference between a military regime and a personalist regime led by the military is that 'real' military regimes do not de facto concentrate power in one specific military leader.

3.1.2 Monarchies

We define monarchies as those regimes in which a person of royal descent has inherited the position of head of state in accordance with accepted practice and/or the constitution (one cannot proclaim oneself a monarch). Cases in which the monarch has limited political powers and is not the effective head of government are not classified as monarchies (i.e. ceremonial or constitutional monarchies). However, succession does not have to follow the principle of primogeniture. Other principles may also be used, as in the 'dynastic' Gulf monarchies, where the successor is chosen by family consensus (Herb 1999). The fact that power is passed on from father to son is not enough to constitute a monarchy. Syria, North Korea and the Democratic Republic of Congo are all examples of countries where power was passed on from father to son, but where the succession of power was not regulated in accepted practice or by the constitution.

Our conception of monarchy does not differ much from the definitions used by CGV and GWF. The former authors define countries where the effective head of state bears the title of 'king' and has a hereditary successor and/or predecessor as monarchies. The first version of the Geddes (1999) data did not include monarchies as a regime category, but the updated version of the dataset also distinguishes this regime type. For GWF, monarchies are those regimes where control over policy, leadership selection and the security apparatus is in the hands of a royal family (Geddes *et al.* 2012b, p. 8). Interestingly enough, monarchies can never be classified as personalist in the GWF data, although one might argue that monarchies are by definition the most personalistic regime type possible and that they share many characteristics with the personalist regimes.

3.2 Authoritarian regimes with elected legislatures

The most notable feature of our typology is the distinction between different types of authoritarian regimes with elected legislatures. All authoritarian regimes that are neither military nor monarchies are labelled civilian by CGV. This label says something about the nature of the chief executive, but nothing about the institutions that underpin his/her power. For instance, the CGV dataset codes the USSR and Russia as the same regime type, despite the fact that multiparty elections were implemented in Russia after the fall of the Soviet Union. Such rigid coding no doubt leaves out a great deal of information about political life in Russia from the Soviet period onward (after all, Brezhnev and Yeltsin operated under starkly different institutional conditions).

Civilian regimes in GWF fall into one of two categories, either personalist or party regimes. The former are those regimes where dictators personally control policies and elect regime officials. Personalist regimes are often supported by parties or by the military, but are not constrained by these organisations (Geddes 2003, p. 52). In party regimes (labelled single-party regimes in Geddes 1999), a political party exerts at least some degree of influence over the chief executive.

Since the end of the Cold War, the number of authoritarian regimes arranging elections has increased dramatically. Schedler (2006) has devised the label 'electoral authoritarianism' to account for these countries where multiparty elections were used to legitimise authoritarian regimes. During the 1990s and 2000s, several authors have researched the role of these elections in authoritarian regimes (Brownlee 2007, Greene 2007, Gandhi and Lust Okar 2009, Levitsky and Way 2010). There has also been a growing literature on how such elections, although unfair, could potentially push the boundaries towards democracy (Howard and Roessler 2006, Lindberg 2006, Teorell and Hadenius 2009, Wahman 2013).

This new literature is not well reflected in the CGV and GWF typologies. To take an example, Lindberg's (2006) observation of the surge of electoral regimes in Africa after 1990 remains unnoted in these two datasets. Côte d'Ivoire introduced multiparty elections in 1990 but is coded as party-military throughout the period 1960–1999 by GWF, and as a civilian dictatorship by CGV for the entire period 1960–2008. Similarly, no change in regime type was recorded by CGV and GWF when Kenya's KANU (Kenya African National Union) party had to implement multiparty elections in 1992. A fundamental idea underpinning our dataset is that elections are an important institutional feature of some authoritarian regimes. Competitive elections are distinct from elections where parties are not allowed or where only the governing party can take part and where opposition parties therefore cannot field candidates or be represented in the legislative assembly.

3.2.1 No-party

In no-party regimes elections are held, but no parties are allowed to participate in those elections. The category is rare throughout the whole period captured in the dataset. However, the Maldives belonged to this category until 2005. We rely mostly on data from Banks and Wilson (2012) to identify cases where parties are prohibited.⁶

3.2.2 One-party

The one-party category refers to authoritarian regimes with only one legal party (formally or de facto). It might allow intra-party competition (as in Tanzania up to 1995) or competition from independent candidates (as in Laos). In some cases the incumbent party might also have satellite parties that are independent in name but do not take oppositional positions (as in Uzbekistan).

The one-party category is a regime type that declined sharply with the end of the Cold War, but prominent contemporary examples include China, Cuba and North Korea. To identify one-party regimes, we once again rely heavily on the Banks and Wilson (2012) data. One-party regimes would generally have an elected legislature, where only one party is represented.⁷ A number of adjustments to Banks and Wilson's data were, however, made to account for boycotts and semi-autonomous pro-government parties.

3.2.3 Multiparty authoritarian

The multiparty authoritarian category corresponds to the regimes Schedler (2006) labels 'electoral authoritarian'. In these regimes, at least a minimal level of competition is allowed and some opposition candidates (although not necessarily all) are allowed to participate in national elections. In some cases opposition candidates are not represented in parliament due to voluntary boycotts, but in contrast to one-party regimes, they were not prevented from running. Using the same variable from Banks and Wilson (2012), multiparty authoritarian regimes would normally have more than one party represented in the parliament.

The earlier version of our dataset also distinguished dominant party regimes. Levitsky and Way (2010, p. 12) make the point that 'competitive authoritarian regimes' where dictators cannot be sure of winning elections and where the 'incumbent has to sweat' are distinct from those where competition is nominal. Although this is certainly a valid point, the distinction is hard to operationalise in qualitative terms. Election results have often been used to determine the sample of countries to be classified as competitive authoritarian. Different studies, however, have applied different thresholds. Geddes (1999) uses a 67% criterion, while Wantchekon (2003) and Howard and Roessler (2006) draw the line at 70%. Although we have refrained from imposing any qualitative threshold in our new dataset, the share of the seats won by the largest party is still included. Users may find this useful as a continuous control variable or for singling out less competitive multiparty authoritarian regimes. We would, however, advise users to apply different thresholds of competitiveness to check the robustness of their results.



Figure 1. Regime typology with hybrids.

4. Hybrids

In addition to the main typology, our dataset also includes hybrid categories. Since the main categories are not mutually exclusive, several countries combine institutions from two main regime types. While the main coding has priority in the case of overlapping dimensions, the hybrid regime variable fleshes out the total combination of authoritarian institutions.

Figure 1 shows possible regime hybrids. The military and monarchy categories might be combined with an electoral dimension (multiparty, one-party or no-party).⁸ Allowing all these amalgams to be treated separately, along with some categories for transitional cases where stateness is lacking (e.g. due to civil war or occupation), or cases that do not fall into any of the main categories (e.g. Iran after the revolution), gives rise to the most disaggregated version of our typology.

Gilbert and Mohseni (2011, p. 284) have criticised our typology for its lack of parsimoniousness. We, however, view this disaggregated version as merely supplementary to the main typology. To arrive at the latter, more simplified version, all monarchy hybrids are classified as monarchies and all military hybrids are merged into the military category. The rationale behind this simplification is that whether a monarch or the military rules (openly or behind the scene) is a more fundamental regime characteristic than whether there are elections, or what form of competition these elections take. Yet the fact that we supply the fully disaggregated version means that each user is able to make individual coding decisions in accordance with his or her research purposes. Overall, more information is better than less.

Although the main typology would normally be the most useful, the disaggregated hybrid typology might be suitable for certain research questions. One might wonder, for instance, whether the introduction of multiparty elections in military regimes destabilises military rule or if monarchies with legislatures distribute resources differently than those without such representative bodies.

Like our dataset, GWF also features hybrids. However, the GWF typology includes two possibly overlapping categories, party and personalist, allowing combinations of as many as three regime dimensions. GWF's choice of 'dominant' regime dimensions in the collapsed regime categories demonstrates that their prioritisations differ from ours. In the GWF typology, the party dimension dominates over the military dimension, and the military dimension has priority over the personal dimension.⁹

Finally, it should be noted that our dataset also includes separate dummy variables for the different regime dimensions. These codings disregard potential overlaps across regime categories. There is one such variable for a country being a monarchy, one for being a military regime and three indicating whether elections are one-party, multiparty or no-party. Since these features are not mutually exclusive, these dummy variables can be entered collectively as explanatory variables in, for example, a regression analysis. Depending on the exact nature of the subject under study, it might be advisable to perform this exercise as a robustness test, particularly when the focus is on the explanatory clout of the electoral variables (which, remember, are overridden by the military and monarchy categories in the main regime typology).

5. Empirical concurrence

Treated as 'wholes', our typology and the ones proposed by CGV and GWF are not completely comparable. They build on varying theoretical classifications and identify and differentiate regimes according to different logics. However, there are some regime categories that are largely analogous, in that they aim at capturing roughly the same set of regimes, although using different tools of measurement. In this section, we will study the actual agreement between two such categories: military regimes and monarchies. As for the electoral types, the

three indices treat these regimes differently: CGV place all these regimes in one category (civilian), in GWF they fall into two different categories (party and personal), whereas our index sorts these regimes into three different categories (multiparty, one-party and no-party). Hence, this section will make clear both the overlap and the differences between our electoral regime types and those of the other indices.

Table 3 shows the concurrence between the three indices. It reports the percentage of all country-years falling along the main diagonal in a 2*2 matrix of each pair of data sources, together with Scott's (1955) inter-coder reliability measure (Scott's π , ranging between 0 and 1, accounts for the concurrence that may have occurred by chance).¹⁰One special problem has to do with the fact that the classifications of each country-year in the indices refer to different times of the year. Our coding is based on the political situation as of 31 December. In a similar vein, CGW code transition years with regard to the regime that emerges during that year. GWF, however, base their coding on the situation as of 1 January each year. To account for these differences, our codings and those of CGV are always compared with the classification in GWF for the subsequent year.

In the analysis, we use our and GWF's military and monarchy regime dummies (i.e. not the collapsed regime variables). This is not unproblematic, as our standards for collapsing the hybrids into the main categories differ from GWF's standards. This plays no role for monarchies,¹¹ but makes the military categories less comparable. To account for this problem, we have also created an alternative collapsed version of the GWF data following our own standards. The concurrence for this modified military variable is also reported. It is also important to emphasise that the CGV and GWF data have been merged into our dataset. This implies that concurrence in the country-years that are not covered in our data is not accounted for in the tables.

Table 3 reveals that the concurrence for monarchies is above 99% for all pairs of indicators. This was expected due to the more accessible information on the role of the monarch. The few disagreements between the typologies are often found in transition years. There is only one case in the data where multiple subsequent years were coded differently in the alternative data sets: Samoa is coded as a multiparty authoritarian regime in our dataset between 1972 and 1988 and as a democracy from 1989 to 2010, whereas CGV regards it as a royal dictatorship for the entire period.¹² In Samoa's 1960 constitution, parliamentary democracy was combined with traditional authority. Until 1990, suffrage was restricted to citizens with *matai* (chief) titles, but multiple parties were allowed and the real political power was vested in the parliament. Samoa introduced full suffrage in 1990 and maintained the ceremonial status of the monarch (Lawson 1996,

	Observed concurrence	Expected concurrence	Scott's π	No. obs.
Authoritarian mon	archies			
HTW-GWF	0.999	0.894	0.995	5287
HTW-CGV	0.993	0.859	0.954	6305
GWF-CGV	0.999	0.892	0.994	5130
Military autocraci	es			
HTW-GWF	0.891	0.780	0.504	5287
HTW-CGV	0.903	0.719	0.656	6305
GWF-CGV	0.833	0.735	0.368	5130

Table 3. Concurrence between typologies.

Notes: Entries are the proportion of observations (country-years) that concur in their classification across each pair of data sources. Concurrence occurs both when both sources code a 0 and when both sources code a 1. To account for different dates of coding, GWF is compared with the data from the subsequent years in HTW and CGV.

chap. 4). In view of this development, we believe we are on safe ground in not coding Samoa as a monarchy.

Concurrence between the military categories is significantly lower than between the monarchy categories. The number of military regimes in the data varies significantly between the three sources. During the time period under scrutiny (1972–2010), CGV sort 19% of all country-years into the military dictatorship category, and we categorise 14% of the years as military, whereas GWF only put 7.5% in this category. These substantial discrepancies boil down to fundamentally different measurement techniques.

As noted, CGV count all dictatorships where the effective head of government is a former military officer as military regimes, while we leave out those military leaders who have come into political office through open elections. The low number of military regimes in GWF is explained by the fact that many of the cases that we and CGV have categorised as military fall into their personalist category.

A good illustrative example of these differences is the Gambia, which is coded as a military dictatorship from 1994 onward in CGV and as a personalist regime from 1995 in GWF. We categorise the Gambia as a military regime between 1994 and 1996, and as multiparty authoritarian from 1997 onward. In their conception, CGV place emphasis on the personal concentration of power around the president and the fact that President Jammeh is an army officer who first took power in the 1994 coup d'état. In contrast, we change the regime categorisation in 1997, after the first multiparty elections: presidential in 1996 and parliamentary the following year (Saine 2009).

Another important issue concerns the way hybrid regimes are collapsed into the main regime types. In our typology, the military dimension is always given preference over the electoral dimension in military hybrid regimes (e.g. a military–multiparty regime would be coded as military in the main categorisation). Party–military or party–military–personal regimes would instead fall into the party category in GWF. If we change this convention, so that all military hybrids (in accordance with our own convention) fall into the military category, Scott's π increases to 0.58 when GWF is compared to our data and 0.52 when compared to CGV. Still, they are far below the concurrence measures for monarchies.

It is important to note the differences in the case of military regimes for users of these different indices, as the choice between alternative measures will have important repercussions on their empirical research. Concurrence for the military regimes is especially low between GWF and CGV (0.368), whereas the correspondence is highest between CGV and our data (0.656).

The electoral or civilian categories are not comparable in the three typologies; thus, concurrence is impossible to measure.¹³ It is interesting, though, to see how the electoral categories in CGV and GWF are divided into the different electoral categories in our dataset. Most importantly, we want to find out whether our multiparty authoritarian category accords with any of the other categories in the alternative typologies. Table 4 clearly shows this is not the case.

	CGV civilian (%)	GWF one-party (%)	GWF personal (%)
HTW multiparty	33.8	28.78	40.94
HTW one-party	37.87	45.02	9.24
HTW no-party	2.03	0	0.72
HTW other authoritarian	16.73	19.3	48.5
HTW non-authoritarian	9.57	6.90	0.60

Table 4. Distribution between civilian regime types.

Looking at CGV's civilian category, this is split between the multiparty and one-party categories in our dataset. That comes as little surprise given that CGV do not provide any information on whether elections include any level of competition. GWF's party category (referred to as single-party in the older version of the Geddes data) has the best fit with our one-party category, but 29% of these regimes fall within the multiparty category. The table also shows that the personalist type is not an entirely electoral grouping. About half of all country-years fall in the other authoritarian category, due to the fact that many personal regimes are coded as military in our data. We have coded only 41% of the personal regimes as multiparty.

These tables clearly show that the GWF and CGV typologies cannot be used if the researcher believes that elections in general, and competitive elections in particular, are important institutions in authoritarian regimes.

6. Conclusion

In this article, we have presented a new and slightly modified version of the original Hadenius and Teorell (2007) data and compared it with two alternative typologies. In order to sum up, we will use this conclusion to briefly discuss the most important conceptual, empirical and practical differences between the three indices under study.

Conceptual difference: The choice of dataset is more than a matter of methodology. The three typologies identify different regime types, emphasise varying dimensions and even understand the very nature of political regimes differently. From our perspective, the most important conceptual divergence between the typologies is the focus on leadership or elite characteristics vis-a-vis institutions. Whereas the CGV and GWF typologies combine dimensions of elite and support group characteristics with institutions in their classifications of regimes, we have argued in favour of an approach giving supremacy to the institutions underpinning the mode of governing. We contend that a country can change leadership without changing regime type, but can also change regime type without a change in leadership.

A unique feature of the GWF dataset is that it recognises the personalist regime category, a version of authoritarianism that has proven relevant for important outcomes in empirical research (Escribà-Folch and Wright 2010). Despite its potential empirical usefulness, however, the personalist regime category is quite distinct from the institution-centric classifications applied in our typology. The focus on personalism as a trait of dictatorship implies a conflation of regime and leader characteristics. As for our own dataset, it distinguishes itself from the two alternatives in that it splits up the heterogeneous set of 'electoral regimes' into single-party, no-party and – most importantly – multiparty autocracies.

One final important conceptual difference has to do with the conceptualisation of democracy. Whereas CGV and GWF establish a qualitative definition of democracy, we employ a quantitative threshold based on a continuous understanding of democracy. The merits of and problems with dichotomous conceptualisations vis-a-vis continuous conceptualisations of democracy is beyond the focus of this article. However, researchers using the CGV and GWF typologies must pay close attention to the definition of democracy applied in the two sources.

Empirical differences: The three datasets differ fundamentally in the area of measurement, giving rise to important empirical discrepancies in regime classification. The CGV dataset is a paragon of simplicity, with all non-democratic regimes neatly classified into one of three categories (monarchy, military or civilian). These authors tend to base their coding decisions on easily observable features, such as whether the head of government has the title of 'king' or has ever 'worn a uniform'. This is certainly an asset in terms of reliability, but could occasionally raise concerns about validity (Schedler 2012). Both the GWF dataset and ours rely more heavily

on judgement and inference to distinguish the regime types. The most important empirical consequence of these varying measurement methods is revealed in the case of military regimes, where no pair-wise concurrence between the datasets exceeds 90%.

Practical differences: Many researchers will end up choosing a dataset based on the specific research question under investigation. CGV and GWF certainly outperform our dataset in terms of time coverage. CGV covers the entire period 1946–2008 and GWF 1946–2010, whereas our dataset only includes the period 1972–2010. The significantly shorter time span for our data will make the information less useful for researchers wishing to study authoritarianism or democratisation before the third wave of democracy (Huntington 1991). In terms of country coverage, GWF falls short due to the exclusion of smaller countries with fewer than one million inhabitants. Our institutional focus makes our dataset more suited for research where the relationship between leadership and institutions, or vice versa, is being studied. Moreover, the inclusion of the multiparty authoritarian regime type makes our dataset the only viable alternative, among the three, for those interested in the increasingly important electoral authoritarian regime type. A final practical advantage of our dataset is that it is characterised by a larger number of detailed and disaggregated variables that enable scholars to look at variations of the main categories, as well as studying the robustness of their results using various thresholds for democracy and competitiveness.

We hope this article has prepared the soil for potential users and has helped them to improve their understanding of the critical differences and similarities between the three datasets under review. Ultimately, the particular research question must determine which dataset to use. As a general rule, we also encourage users to make comparisons between the different datasets in their particular area of application. The field has hitherto been somewhat preoccupied with the issue of 'regime stability', but there are many understudied aspects of authoritarian regime types concerning their nature, origin and consequences. Only by systematically exploring existent data sources can these be further improved in years to come.

Notes

- 1. It is unclear what constitutes a 'large party' or how we should know whether a party is 'large' if it has never been legally permitted to stand for election.
- 2. We have used an updated version of the original dataset that extends to 2005. We are grateful to Michael Bernhard for sharing this data with us.
- 3. It would also have been possible to use the categorisation by Geddes *et al.* (2012a). However, while the other indices are measures of democracy, Geddes *et al.* provide a typology of authoritarianism. Geddes *et al.* has one residual category for 'non-autocracies'; this category includes democracies but also other entities such as 'transitional' or 'occupied' regimes. The fact that transitional regimes are not coded as authoritarian also excludes a significant number of cases where the transition to democracy was a more gradual process. Consequently, the mean cutoff point in Geddes *et al.*'s typology is significantly lower than in the other indices (5.91).
- 4. The reason for only going back to 1972 is that our typology is dependent on Freedom House scores, which are only available from 1972 onward.
- 5. We use the variable referred to as *Polit02* (type of regime) in the Banks and Wilson dataset to identify military regimes. Countries where *Polit02*=1 (civil-military) or *Polit02*=2 (military) are generally coded as military regimes. To identify monarchies, we rely on the variable *Polit05* (effective head of state). Countries where *Polit05*=1 (monarch) are generally coded as monarchies.
- 6. No-party regimes have effective legislatures Legis03>0, but there are no legal parties Legis01=0.
- 7. Legis01 (the number of seats won by the largest party) = Legis02 (the number of seats in the lower house).
- 8. There is one regime amalgam that does not appear in Figure 1: the one-party monarchy. This however seems to be an extremely rare creature, only exemplified in our data by the last four years of Iran under Shah Pahlavi (1975–1978).
- 9. In the GWF codebook, they describe this as 'one convention', indicating that this might be done differently.

- 10. Scott's $\pi = (\text{observed concurrence} \text{expected concurrence})/(1 \text{expected concurrence})$
- 11. GWF does not have any monarchy hybrids, and HTW always consider 'Monarchy' as the dominant hybrid dimension.
- 12. Samoa is not included in the GWF data. A second, partial exception is that of Nepal in 2006 and 2007, coded as a royal dictatorship in CGV, a democracy in GWF and as a residual 'other' by ourselves. Our coding is based on the fact that Nepal's monarchy collapsed in 2006, but new parliamentary elections were not held until 2008 (Thapa and Sharma 2009).
- 13. In all honesty, it is not entirely correct to describe Geddes' personalist category as civilian or electoral. Personalist regimes can be civilian or electoral, but might also have a military origin (they are, however, never monarchies).

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