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V-Dem's Conceptions of Democracy and Their Consequences

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Michael Coppedge

February 2023



THE VARIETIES OF DEMOCRACY INSTITUTE



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UNIVERSITY OF GOTHENBURG DEPT OF POLITICAL SCIENCE

Varieties of Democracy (V-Dem) is a unique approach to conceptualization and measurement of democracy. The headquarters – the V-Dem Institute – is based at the University of Gothenburg with 20 staff. The project includes a worldwide team with 5 Principal Investigators, 23 Project Managers, 33 Regional Managers, 134 Country Coordinators, Research Assistants, and 3,700 Country Experts. The V-Dem project is one of the largest ever social science research-oriented data collection programs.

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V-Dem's Conceptions of Democracy and Their Consequences*

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Abstract

In order to measure "democracy," the Varieties of Democracy project (V-Dem) developed an elaborate conceptual scheme with several distinctive characteristics. First, it favored concepts that ultimately would be measurable. Second, it sided clearly with the view that democracy is a continuum (or several continua) rather than a category such as a discrete regime type. Third, it differentiated among five "varieties" of democracy: electoral, liberal, participatory, egalitarian, and deliberative. This paper defines and contrasts each variety and provides a rationale for each one. It also explains why V-Dem abandoned Arend Lijphart's contrasts between consensus and majoritarian democracy. Second, V-Dem disaggregated each broad conception of democracy into more specific conceptual components, and the components into subcomponents, and so on, until reaching the most specific concepts that it considered feasible to measure. V-Dem's conceptual scheme has several consequences. One is that, because electoral democracy is an important component of the other four varieties, they all have much in common, although there are meaningful empirical differences, especially for egalitarian democracy. Another consequence is that the availability of disaggregated measures refocuses attention away from broad notions of "democracy," toward finer-grained, more distinct, and potentially more useful concepts such as freedom of expression, civil liberties, party competition, institutional checks on the executive, consultation, power asymmetries, and transparency.

V-Dem's Conceptions of Democracy and Their Consequences

My goals in this paper are to describe how the Varieties of Democracy project (V-Dem) has approached the task of conceptualizing "democracy," to acknowledge the choices that are contestable and describe how V-Dem has addressed those issues, and to highlight how V-Dem's choices influence its portrayal of democracy around the world during the past century. The central goal guiding its choices is the need to measure democracy while respecting the richness of the concept. To this end, V-Dem recognizes five major principles of democracy – electoral, liberal, participatory, egalitarian, and deliberative – and encourages users to choose a version of democracy that is appropriate for their needs rather than a single overarching concept of "democracy." Nevertheless, because V-Dem treats electoral democracy as a fundamental component of every variety, all the varieties except egalitarian democracy are strongly correlated. I encourage users to use V-Dem's fine-grained subcomponents and specific indicators whenever possible, as they capture the most meaningful and informative cross-national differences and historical changes.¹

V-Dem's Approach to Conceptualization

V-Dem's conceptual scheme has five distinctive features:

- It is designed to make measurement of democracy possible.
- It builds on Robert Dahl's concept of polyarchy.
- It conceives of democracy as a complex aggregate of multiple continuous dimensions rather than one of several categorical regime types.
- It is hierarchical: it breaks electoral democracy and each of four components into subcomponents, and sub-subcomponents, aiming to generate concepts that are simpler, more observable, more objective, and therefore easier to measure reliably.
- It lays out logical/mathematical formulas for reaggregating specific measures into indices measuring the more general concepts.

I discuss each of these in turn.

V-Dem originated as an effort to measure democracy better: specifically, more transparently, more reliably, more precisely, and in a qualitatively more nuanced way than the alternative measures

¹ This is not the place to describe all of V-Dem's indicators or all the details about how they are aggregated into its dozens of indices. That information has already been published in Coppedge et al. (2020), especially chapters 2 and 5; and in each annual edition of the V-Dem Codebook.

with the broadest geographic and historical coverage – Polity (Marshal et al. 2016); Freedom House (2012); Boix, Miller, and Rosato (2013); Cheibub et al. (2010) (Coppedge et al. 2020, chapter 1). Its original Principal Investigators² and original Project Managers³ believed that existing measures were inadequate for the research in which they were being used; that practitioners needed more fine-grained measures to assess their democracy promotion efforts; and that educators, students, journalists, and NGOs would find good uses for them. Having measurement as the ultimate goal focused our attention on specific concepts that we could define clearly to prevent disagreements among country experts based on conceptual confusion. They also had to be concepts that would be meaningful in all countries, going back to 1900 or earlier, which prevented them from becoming too specific.

We do not claim that our concepts are value neutral; obviously, we all favor democracy, and definitions of democracy must necessarily wrestle with questions of equality, fairness, and freedom. However, whenever our concepts summoned those values, we took pains to define as concretely as possible what we meant by them to keep the experts' normative biases from strongly influencing their responses. Consequently, we tended to write wordy questions, many of which included a paragraph of clarification! Here, for example, is the text of the question for the variable v2dlcountr, "Respect for counterarguments":

Question: When important policy changes are being considered, to what extent do political elites acknowledge and respect counterarguments?

Clarification: Because discourse varies greatly from person to person, base your answer on the style that is most typical of prominent national political leaders.

Responses:

0: Counterarguments are not allowed or if articulated, punished.

1: Counterarguments are allowed at least from some parties, but almost always are ignored.

2: Elites tend to acknowledge counterarguments but then explicitly degrade them by making a negative statement about them or the individuals and groups that propose them.

3: Elites tend to acknowledge counterarguments without making explicit negative or positive statements about them.

² John Gerring, Staffan I. Lindberg, Jan Teorell, and the author.

³ David Altman, Michael Bernhard, Stephen Fish, Allen Hicken, Carl Henrik Knutsen, Matthew Kroenig Kelly McMann, Pamela Paxton, Daniel Pemstein, Svend-Erik Skaanning, and Jeffrey Staton.

4: Elites almost always acknowledge counterarguments and explicitly value them, even if they ultimately reject them for the most part.

5: Elites almost always acknowledge counterarguments and explicitly value them, and frequently also even accept them and change their position.

Measurement imposes another kind of discipline on conceptualization. Valid measurement requires a useful mapping of concepts onto empirical relationships in the world. In some strands of philosophy, mapping concepts onto empirical relationships is less important than logically mapping one's own concepts onto the concepts used by other contributors to the literature, whether those concepts have clear empirical referents or not. Mapping onto empirical relationships is a matter of learning about what goes with what out there in the world and being willing to adapt one's concepts accordingly. It is therefore necessarily both a deductive and an inductive process.

Deduction is indispensable, as it is necessary to start someplace, and the best place to start is with the shared understandings of concepts that are part of either ordinary language or academic discourse, even though they may turn out not to be very useful for measurement. But when we allow empirical analysis to inform concept formation, we develop expectations about the world that tend to be confirmed by experience and are therefore more useful for empirical analysis. For example, the concept of "degrees of media freedom" is useful to the degree that countries that do not censor the media also allow many publishers and broadcasters to function, present diverse points of view, criticize the government without fear of punishment, and do not self-censor; and countries that do censor also limit the number and diversity of media outlets and punish those who criticize the government. By contrast, when a conceptual scheme encourages expectations about the world that are not borne out by experience, it is not very useful. For example, a concept of "freedom" that envisions a world in which freedom of expression and freedom from taxation and regulation go hand-in-hand is not very useful for understanding a world that contains Pinochet's free-market dictatorship and Nordic social democracies in addition to capitalist democracies and totalitarian command economies.

My own intellectual path into V-Dem evolved along these lines.⁴ As a first-year graduate student, I was persuaded by Sartori's argument that differences of kind are logically prior differences of degree (1970). However, I was not confident that the differences of kind could be ascertained in a purely deductive way. I was more attracted to Dahl's argument that it was useful to think of

⁴ To be clear, there was much more to the origins of V-Dem than my personal intellectual evolution. Many people had similar ideas at the same time, and some people had other insights that found their way into V-Dem's aims and methods.

"polyarchy" as consisting of two independent dimensions, contestation and inclusiveness: two qualitatively distinct concepts that were each matters of degree (1971, 6-7). They are independent in the sense that one can imagine high or low values of each dimension independently of the value of the other dimension. As Dahl put it, there can be polyarchies, closed hegemonies, competitive oligarchies, and inclusive hegemonies. As one of his research assistants, I helped confirm that suffrage, a measure of inclusion, belongs to a dimension independent from several measures of contestation (Coppedge and Reinicke 1990). Years later, when many measures of democracy became available, Alvarez, Maldonado, and I empirically confirmed that they reflected at least two dimensions of democracy that corresponded well with Dahl's hypothesized dimensions of contestation and inclusiveness (Coppedge et al. 2008).

All of the original leaders of V-Dem regarded Dahl's concept of polyarchy the essential starting point for defining democracy. In fact, the variable name for our Electoral Democracy Index (EDI) is v2x_polyarchy. There is, by design, a close correspondence between Dahl's "institutional guarantees" (Dahl 1971, Table 1.1) and the components of V-Dem's EDI (Table 1). At the same time, we recognized that "polyarchy," as Dahl intended, was a rather thin concept of democracy (although not as thin as Schumpeterian elite democracy), much like a least common denominator; and that it omitted several variations on the theme of democracy that possess considerable legitimacy and long philosophical or political pedigrees. These additional principles have been assigned various labels, which we (led primarily by John Gerring) condensed into liberalism, participation, egalitarianism, deliberation, and Lijphart's tradeoff between consensus and majoritarian democracy (Lijphart 1999).

One way to think about these variants of democracy is as critiques of the inadequacies of polyarchy. Each critique recognizes some value in the competition for power via elections in the context of civil and political liberties, but insists that these fundamentals are insufficient for meaningful democracy. Each variant focuses on a different deficiency and a different corrective. Proponents of the liberal principle fear that executives can become too powerful, and so prescribes legislative and judicial checks and balances and strong guarantees for individual rights (Locke 1963, Holmes 1995). Advocates of participatory democracy agree, with Rousseau, that the people are free only in the voting booth; between these rare opportunities to exercise their sovereignty, they are in chains (Rousseau 1762/1968, Barber 1988, Pateman 1976). Therefore, many other channels of participation, from hearings and primaries and juries to referendums and mass demonstrations, are necessary for democracy. Friends of egalitarian democracy point out that people are prevented from

acting as full citizens if they lack adequate housing, food, health, education, and freedom from social control by the rich and powerful (Marx and Engels 1848/2002, Beitz 1990). Any democracy worthy of the name, in their view, must meet these basic needs. The state must also work to empower citizens who suffer discrimination based on gender, ethnicity, religion, sexual orientation, or disability. Advocates of deliberative democracy focus on the need for respectful debate. Citizens must have opportunities to be heard fully in public forums, and leaders must earn their authority by listening respectfully, engaging in deliberation, providing reasoned justifications for their actions, and keeping the common good in mind (Habermas 1987). Lijphart recognized some value in empowering majorities, but argued that consensus democracy that institutions that include as many segments of society as possible in major decisions are more likely to preserve peace and generate good policies, especially in divided societies (Lijphart 1999). V-Dem considers it important to recognize all these varieties of democracy, but also to make electoral democracy or polyarchy an essential component of any kind of democracy. In this way, it disqualifies "people's democracy" and other variants that undermine the responsiveness of leaders to citizens through competitive elections.

Institutional Guarantee (Dahl)	EDI Component (V-Dem)
Freedom to form and join organizations	Freedom of Association Index
Freedom of expression	Freedom of Expression and
Alternative sources of information	Alternative Sources of Information
Right to vote	Share of population with suffrage
Free and fair elections	Clean Elections Index
Right of political leaders to compete for support [in the	
form of votes]	Elected Officials Index
Institutions for making government policies depend on	
votes and other expressions of preference	
Eligibility for public office	

 Table 1: Polyarchy and the Electoral Democracy Index

Many researchers remain curious about whether it might be useful to conceive of, and measure, other dimensions of democracy; and if so, what they are. Bollen's work in sociometrics models how to proceed: disaggregate the concept of democracy into several components, measure them separately, use data-reduction methods to reveal their latent dimensional structure, and then re-aggregate them into one index for each dimension (Bollen 1980). Things that go together can be combined into a quantitative scale, and different scales can measure qualitatively different dimensions. In this way, empirical analysis can furnish guidance about which concepts can be usefully bundled together into a shared dimension and which ones are better treated as qualitatively different dimensions.

V-Dem's default modus operandi is to break concepts down, measure them continuously whenever possible, analyze their dimensionality, and put them back together as indices that are useful because they are informed by empirical relationships. Disaggregation extends to different numbers of levels, in a hierarchical structure fairly well represented by tree diagrams, shown in Figure 1 for the Electoral Democracy Index. The Deliberative component has only two levels: the component itself and the five specific indicators that comprise it (Common good, Engaged society, Range of consultation, Reasoned justification, and Respect counterarguments). However, when the Deliberative component is combined with the four-level Electoral Democracy Index (Freedom of discussion has subcomponents for men and women), the resulting Deliberative Democracy Index has five levels of disaggregation.

Re-aggregating the most specific concepts into more general ones is informed by empirical relationships, usually determined by Bayesian factor analysis. Re-aggregation is least problematic when components are strongly correlated with one another. Strong correlations mean that indicators can be combined into an index without losing much information. For example, the eight indicators that constitute the Freedom of Expression and Alternative Sources of Information Index all have loadings from 0.887 to 0.932 on a single latent factor that explains nearly all of their variance (author's analysis of v12 data). In the beginning, the empirical analyses often led us to modify the concepts. We regarded our initial conceptual scheme as a set of hypotheses, and some of our assumptions proved wrong. For example, it seemed reasonable to assume that all civil liberties covary, but empirical analysis showed that our variables Subnational civil liberties unevenness, Weaker civil liberties population, and State ownership of economy are more usefully treated as belonging to some other dimension. Now that we understand which measures empirically go together well and which do not, the conceptual structure has stabilized.

However, there is not always a one-to-one correspondence between conceptual and empirical dimensions. Strong empirical associations are a necessary condition for aggregating items into a unidimensional scale, but they do not require items to be combined. At times, dimensions are conceptually distinct even though they are empirically very similar. For instance, in V-Dem data (v12), the correlation between freedom of peaceful assembly and low government censorship effort is 0.84, but conceptually, they represent government respect for different actors (civil society organizations vs. media outlets) to do different things (hold meetings vs. broadcast the news). There are good reasons not to combine them except to define or measure a very general concept.



Figure 1: The Conceptual Hierarchy of V-Dem's Electoral Democracy Index

The opposite situation also occurs, in which defining and measuring a general concept requires combining concepts that lie on different empirical dimensions. "Democracy" is one such general concept: an indispensable concept that has more than one dimension, even if we limit ourselves to Dahl's dimensions of contestation and inclusiveness. Below I will explain how V-Dem has confronted this issue multiple times. Suffice it to say for now that doing so requires finding theoretical justifications for combining dissimilar dimensions into a single multidimensional measure. We are all familiar with multidimensional formulas. In geometry,

there are formulas for calculating the area (a multidimensional quantity) of squares, triangles, circles, and other polygons. In physics, there are formulas for combining distance and time into velocity and acceleration. In economics, there is a simple formula for combining national income and population into GDP per capita. Formulas for combining the dimensions that comprise democracy require their own well-reasoned justifications.

How V-Dem Addresses Contestable Choices

Some people will always be skeptical that is possible to measure complex contested concepts such as democracy (and peace, fairness, equality, violence, legitimacy, and others). Skepticism is understandable because any attempt to measure complex concepts requires a series of choices, and each of these choices is contestable. However, some choices are more contestable than others. In this section I discuss the following choices:

- Whether to treat democracy as a continuum or a category
- Which varieties of democracy to include
- How general or specific a concept should be
- What is the quantity that varies as you move from the fullest realization of the concept to its absence or opposite?
- How to combine independent dimensions to measure a multidimensional concept.

Whether to treat democracy as a continuum or a category

The field of democracy measurement has long been divided over whether democracy is better conceived as a categorical regime type or a continuous dimension ranging from full democracy to non-democracy (or, as it is increasingly described these days with more rhyme than reason, from democracy to autocracy).⁵ Various justifications have been offered for treating democracy as a category. One justification is that engaging the well-developed literature on "transitions to democracy" and "breakdowns of democracy" requires discrete regime types. This argument strikes me as circular because the literature on transitions and breakdowns assumes

⁵ Some advocates of a categorical concept include Przeworski and Limongi (1997), Geddes et al. (2014), Mainwaring and Pérez-Liñán (2013). Some advocates of a continuous concept include Dahl (1971), Bollen (1980), Hadenius (1992), Vanhanen (1997), Teorell (2010), and Coppedge et al. (2022).

discrete regime categories. A similar but roundabout justification is that if we want to test hypotheses about discrete regime changes, we need to use methods such as logistic regression or event-history analysis, which require a categorical dependent variable, which necessarily measures a categorical concept. Both arguments trap us in an endless regress. Perhaps we would be better off with a literature on "advances" and "setbacks" in democratization (Hagopian and Mainwaring 2005) or some other concepts of change along a continuum. In the same vein, Alvarez et al. (1996) argued that measuring democracy on a graded scale introduces measurement error. However, this argument makes sense only if "true" democracy is categorical; if the true concept is continuous, then it is categorical measurement that introduces measurement error. If we left matters here, we would have to agree with the joke that "There may be said to be two classes of people in the world; those who constantly divide the people of the world into two classes, and those who do not" (Benchley 1920).

It would be tragic to allow ourselves to become trapped into an understanding of democracy as either exclusively categorical or exclusively continuous. If we think it is only categorical, we have to put what we observe into little boxes that lead us to ignore variation within the boxes. If we think democracy is just one continuous quality, we have to commit to the assumption that everything about democracy varies together on just one dimension. It is liberating to relax these cramped assumptions and realize that democracy can be understood as the composite of many qualitatively distinct features, most of which can vary continuously between more and less democratic poles. This is V-Dem's multidimensional approach.

A further argument is that categorical conceptualization is more meaningful. We can think of continuous measures as being rich with fine quantitative distinctions. We can also think of categorical classifications such as typologies as being rich with fine qualitative distinctions. The argument is that people find the qualitative distinctions more meaningful; they do not know what the difference between 0.65 and 0.85 means, so they prefer to hear that the first case is an "electoral democracy" and the second, a "liberal democracy." In fact, some of the researchers at the V-Dem Institute in Gothenburg claim that policymakers and other users demand regime classifications. The Regimes of the World spinoff does this, and its typology of liberal democracy, electoral democracy, electoral autocracy, and closed autocracy is becoming widely used, although it lacks the endorsement of the larger V-Dem project (Lührmann et al. 2018). The internal critique of these regime types is that they provide only an illusion of understanding. The typology gives the impression that all the cases of the same type are similar, and very different from all the cases of other types. In reality, the thresholds bisect smooth, unbroken distributions of cases. As a result, often a country has more in

common with a country just barely over the nearest threshold than it does with countries at the other end of its type. Taking such typologies seriously inevitably requires overzealous policing of arbitrary borders.

A more serious justification is what we could call a "phase change" argument, which allows for an underlying continuous dimension, but claims that there are thresholds on it that are so discontinuous that they effectively define qualitatively distinct regimes. This is analogous to the phase changes in water, from ice to liquid water to steam, as temperature continuously rises. For instance, it was common during the Cold War to see totalitarian, authoritarian, and democratic regimes as dramatically different situations even though they might be arrayed along an implicit scale from no freedom to full freedom. Linz provided some reasoning for one of these discontinuities but not others:

The borderline between nondemocratic and democratic regimes is therefore a fairly rigid one that cannot be crossed by slow and imperceptible evolution but practically always requires a violent break, anticonstitutional acts, a military coup, a revolution, or foreign intervention. By comparison, the line separating totalitarian systems from other nondemocratic systems is much more diffuse (...) (1975, 185).

This is an intriguing claim, but it is subject to empirical testing. Lührmann and Lindberg (2019) would disagree, arguing that in the past decade, "autocratization" – including changes from electoral democracy to electoral autocracy – has tended to proceed in small increments over several years, more slowly and gradually than past regime changes.

A related argument is that different regime types bring different defining dimensions into play, making it impossible to arrange different regimes on a single scale. For example, my simplified reading of Linz (1975) is that his conceptions of democratic, authoritarian, and totalitarian regimes required at least four dimensions: elections or not; full or limited pluralism vs. monistic control; welcome, discouraged, or forced participation; and indeterminate or elaborate leader ideology vs. a mere "mentality." Democracies have elections with full pluralism, welcome but not forced participation, and no particular ideology. Authoritarian regimes have limited pluralism but no elections, they discourage participation, and their leaders have a distinctive mentality but not a real ideology. Totalitarian regimes practice monistic control with no (competitive) elections and forced participation, and their leaders follow an elaborate guiding ideology (Coppedge 2007, 111). Subtypes of each regime depend on a fifth dimension, institutionalization. Whether a concept that has multiple dimensions can be usefully treated as continuous depends on two considerations. First, are the dimensions empirically aligned (correlated) into a single bundle of dimensions? In the above example, do the more democratic options regarding pluralism, elections, participation, and leader ideology tend to be found together, and do the less democratic options also tend to co-occur? If so, they can be combined as along as it makes conceptual sense to do so. If not, we are dealing with a multidimensional concept. (Of course, whether the dimensions are aligned is a matter of degree.) Second, if the concept is multidimensional, is there theoretical guidance about how to combine all the dimensions into a unidimensional measure of a more complex concept? If so (again, a matter of degree), the dimensions can still be combined. (More about this below.) If not, we are better off with separate concepts or measures of distinct dimensions – none of which require categorical conceptualization or measurement.

Which varieties of democracy to include

The concept of democracy is an amalgam of institutions and normative principles that developed in different countries and in radically different historical periods, including ancient Athens, the Roman Republic, the medieval Catholic Church, Italian city-states, Western European feudalism, the Enlightenment, struggles between Crown and Parliament, socialist revolutions, independence movements and decolonization, civil rights movements, feminism, and ongoing identity struggles. It is in no way surprising that all of this baggage does not fit snugly into a single coherent conception of democracy. In V-Dem, we decided not to impose a single definition of democracy on our users, but instead to recognize several major varieties of democracy. In 2007, John Gerring began circulating a think-piece defining several salient varieties. After many edits by many contributors who became V-Dem PIs and Project Managers, this paper evolved into the 2011 *Perspectives on Politics* article (Coppedge and Gerring 2011).

These varieties do a fairly good job of distilling many traditions into a few, but they are probably not exhaustive. They do not include some ideals of communitarian democracy such as small states, homogeneous societies, and the cultivation of civic virtue, although some other elements of communitarianism find their way into V-Dem's participatory and deliberative principles. Neither do they include a form of democracy that emphasizes national sovereignty. However, we decided that sovereignty can be seen as a kind of self-government or self-rule, and we needed a way to distinguish colonies from sovereign states, so we included indicators of Domestic autonomy and International autonomy. We leave it to others to decide how a lack of national autonomy diminishes otherwise democratic practices, even though we later realized that colonies are necessarily undemocratic in other ways, such as in not electing their chief executives.

A notable departure from the varieties listed in the *Perspectives* article is the omission of Consensus Democracy and Majoritarian Democracy. We originally intended to measure these varieties, inspired by Arend Liphart's scholarship, but in the end decided it was not feasible (Coppedge 2018). The problem is that we found it impossible to replicate Liphart's two consensusmajoritarian dimensions (executive-parties and federal-unitary) with any data but his own. It turns out that the existence of these two dimensions depends on Liphart's sample of 36 democracies, his averaging of many years of data, the specific measures he chose, and the many ways in which he rationalized modifications of them. Several other researchers have also reported problems with the concepts or the empirics (Bogaards 2000, Croissant and Schächter 2009, Fortin 2008, Ganghof 2010 and 2012, Mainwaring 2001, Taagepera 2003, Vatter and Bernauer 2009, Vatter 2009). This failure to replicate is a good example of the difference between conceptual and empirical dimensions. Conceptually, the consensus-majoritarian axis has fired imaginations and inspired a great deal of scholarship. *Patterns of Democracy* (1999) has earned tens of thousands of Google Scholar citations. Nevertheless, if the dimensions Liphart claimed to identify do not exist outside of his dataset, they are not useful concepts.

In an effort to be more complete, V-Dem developed many indices that measure concepts on the periphery of democracy's property space, such as corruption; the rule of law; party-system institutionalization; and vertical, horizontal, and diagonal accountability. It has also generated spinoff projects that extend V-Dem's conceptual coverage. Historical V-Dem, in addition to extending most measures coverage back as far as 1789 and including 19th-century polities that no longer exist (such as states that now make up Germany and Italy), added dozens of new measures that were relevant for proto-democratic institutions. The Digital Society Project produces about 30 measures of the ways that social media are being used by governments and non-governmental actors domestically and abroad for censorship, to mobilize, or to spread fake news. Other spinoffs have generated batteries of indicators on exclusion, legitimation, civic and academic space, and responses to the Covid-19 pandemic. V-Party dips below the national level to rate political parties on ideology, organization, populism, and anti-pluralism.

How general or specific should the concepts be?

Conceptualization-for-measurement raises questions of measurement reliability. Reliability may not seem germane to a discussion of conceptualization, but to some extent it is. It is important to recognize three truths. First, measurement is unavoidable. Anyone who wants to relate concepts to reality has to engage in measurement, even if it is qualitative measurement that assigns labels to objects (which is more complicated than many assume it is). To refuse to measure is to refuse to be relevant for real life. Second, all measurements contain measurement error. It is irresponsible to assume, assert, or pretend that one's scores, scales, categorizations, or typologies are perfectly accurate. They all contain some amount of error. The only responsible course is to come to terms with the existence of measurement error, then do one's best to minimize the systematic error (thereby enhancing validity) and the random error (enhancing reliability). Third, in a project that defines concepts for the purpose of measuring them, it is important to define them in such a way that they can be understood in the same way by those who submit the measurements, which is the essence of reliability.

V-Dem's commitment to measuring democracy all over the world, for more than a century of history, necessarily leads to definitions pitched at a general level. We gather most of our data by having a few thousand country experts respond to detailed questions in an online survey. The concepts and corresponding questions do not have to apply absolutely everywhere: filter questions asking whether there are parties or legislatures or whether elections are on course eliminate the need to go deeper into these institutions when the answers are "no." However, when the answers are "yes," V-Dem has to rely on questions that make sense whether there is one party or many, a bicameral or unicameral legislature, and any kind of electoral system. (Nevertheless, we also gather information about party competition, the type of executive, and the family to which the electoral system belongs in order to provide context for these responses.) As a result, V-Dem sometimes ignores idiosyncrasies that may be crucially important in a particular country but not very relevant in most other countries. The US Electoral College, which enabled the presidential candidate with the second largest number of popular votes to win the presidency in 2000 and 2016, is a glaring example. However, no other country has a similar institution anymore, so V-Dem does not take it into account. Another issue is the difference between having elections on a regular schedule versus allowing the incumbent government to call elections when it is to its advantage to do so. This is a general difference between most presidential and most parliamentary systems, but it is not measured (although the specific-date version of the data makes it possible to distinguish regular from irregular

election timetables). In countries with single-member election districts, gerrymandering (drawing district boundaries in politically advantageous or discriminatory ways) is common and consequential, but not included in V-Dem. Participatory municipal budgeting, which some scholars have considered a significant participatory innovation, is ignored because it is still rare.

An example of a very general, even stretched, concept is "electoral management body," or "EMB," which V-Dem did not coin but uses in two questions. It is defined only as "whatever body (or bodies) is charged with administering national elections." In some countries such as Costa Rica it is clear what the EMB is, as there is single independent national agency that oversees all aspects of elections. However, in some countries different national agencies oversee different functions (registering parties, maintaining the voter registry, regulating campaign finance, regulating media access, staffing voting stations, etc.); some agencies are independent, others government-controlled, others multipartisan; in some countries election administration is decentralized. In the United States, thousands of sometimes-partisan county election boards and clerks administer elections, with some involvement by the state-level Secretary of State. When V-Dem asks experts on the US about the autonomy and capacity of "the EMB," they have to make a rough assessment of the typical tendencies across these many bodies.

In order to define concepts that can travel, albeit imperfectly, V-Dem self-consciously recruited Project Managers (PMs) – the researchers with primary responsibility for writing the questions for each thematic "survey" (elections, parties, the executive, the judiciary, parties and party systems, civil liberties, civil society, direct democracy, deliberation, media, political equality, and sovereignty) – who had expertise in different regions of the world. After they drafted questions, groups of PIs and PMs reviewed them with an eye to insuring that they would make sense to experts in each region of the world, over a long span of time. We reworded some questions during this process, added clarifications to some, added some questions, and dropped quite a few entirely. We continued to refine the questions (and therefore the concepts) after a pretest in 2010-2011. We have also had many experts respond to vignettes, or questions about fictional countries with hypothetical descriptions. Vignettes yield additional information about the degree to which respondents respond to the same question in the same ways. We always assess the reliability of the responses between waves of data collection. These assessments show that the average expert understands some questions better than others. In extreme cases, we have dropped questions that seemed to be eliciting confused answers, as in the case of several questions asking about percentages.

The need to measure sometimes makes it necessary to omit concepts for which data is scarce. Malapportionment, the secret ballot, and compulsory voting were not included before Historical V-Dem introduced them. A measure of electoral turnout is a relatively recent addition and still has spotty coverage.

In theory, it would seem desirable to keep disaggregating concepts into ever-more specific subcomponents in order to maximize the nuance that they are able to capture. In practice, four constraints impose limits on conceptual disaggregation. First, there is insufficient theoretical guidance about what the defining elements of some concepts should be. There is a superabundance of theorizing about what "democracy" means, or should mean. There is still quite a bit of theoretical guidance on what the characteristics of a "free and fair election" are and a bit less about what constitutes a "clean election." V-Dem engaged in some novel theory building by defining a clean election in terms of eight subcomponents (paraphrasing the codebook):

- elections with a reasonably accurate voter registry
- elections run by an EMB with sufficient autonomy from the government to apply election laws and administrative rules impartially in national elections
- elections run by an EMB with sufficient staff and resources to administer a well-run national election
- elections free of deficiencies or fraud or irregularities that would affect the outcome
- elections in which opposition candidates/parties/campaign workers were not subjected to repression, intimidation, violence, or harassment by the government, the ruling party, or their agents
- elections without violence related to the conduct of the election and the campaigns but not conducted by the government and its agents
- elections without vote fraud or irregularities by incumbent and/or opposition parties such as the use of double IDs, intentional lack of voting materials, ballot-stuffing, misreporting of votes, and false collation of votes
- elections without vote buying (the distribution of money or gifts to individuals, families, or small groups in order to influence their decision to vote/not vote or whom to vote for)

This list of subcomponents (the third and most disaggregated level of electoral democracy) is typical of the specificity of the concepts that V-Dem actually asks country experts to rate. Would it be

useful to define these concepts even more specifically? What exactly counts as a "voter registry"? What does it mean for an EMB to be "autonomous" from the government or ruling party? What kinds of actions constitute repression, intimidation, violence, or harassment? Perhaps definitions that are more specific would be helpful. However, although there are literatures on "autonomy," "repression," "violence," and so on, they offer little guidance about how they should be applied to the specific context of election administration.

Second, even if it were clear what information is needed to rate countries in very specific ways, there are too few people who have the expertise that would be required for such ratings. Generally only highly trained or experienced people (whether social scientists, lawyers, journalists, or activists) understand the terminology that V-Dem surveys employ and have the factual knowledge to match the evidence with the concepts. In addition, even well-trained, knowledgeable people tend to specialize: those who can rate judicial behavior may know little about elections or the media, and vice versa. (For this reason most of V-Dem's country experts answer only some of the thematic surveys; very few attempt them all.) Furthermore, even experts on a given topic tend to know much more about certain periods of a country's history than about others. For these reasons, we do not even attempt to gather data on subnational levels of government, where expertise is much more limited. V-Dem is probably near the limit of all the available expertise. Although new experts emerge every year, it is still a struggle to recruit enough to cover all the topics and years, especially for the smaller countries that lack well developed social science higher education.

Third, even if we were able to find and recruit country experts with all the necessary expertise, it is unrealistic to expect them to rate a country on more than a few dozen traits for each year from 1900 (or earlier) to the present. This kind of work is tedious, the pay is low, and country experts receive no official recognition, as they must remain anonymous to be insulated from retribution or suasion. As fatigue sets in, the quality of responses declines, so it is counterproductive to demand too much, especially because continuing participation by the same experts in future updates enhances the reliability of data collection.

Finally, it is unlikely that the additional details would add significantly to our understanding of the general and meso-level concepts most users care about. To be sure, there are many uses for the specific indicators in studies of corruption, women's empowerment, party competition, judicial independence, and so forth; and V-Dem's indicators are sufficiently valid and reliable for such applications. However, the more specific the indicator, the fewer users it is likely to have. Therefore, increasing conceptual specificity runs up against diminishing practical returns.

Defining the negative pole and theorizing the continuum

Definitions of concepts tend to focus exclusively on what Goertz (2006) calls the "positive pole": the most fully realized state of the concept, much like an ideal type. Definitions that focus only on the positive pole are compatible with any kind of concept – categorical, radial, or continuous – and permit any level of measurement – nominal, fuzzy, ordinal, interval, or ratio, etc. If we want to treat our concepts as continuous dimensions, we have to add two elements to their definition: a negative pole and a continuum Goertz (2006, 30-35). Specifying these elements pins down the definition to a single dimension in the same way that two points define a straight line. However, sometimes thinning a concept to a single dimension sacrifices meaning.

If a concept is truly unidimensional, then these two elements are straightforward. Electoral turnout is a good example.⁶ The positive pole is that all registered voters vote; the negative pole is that no one votes. The continuum is the percentage of the registered voters who exercise their right to vote.

Often, however, there are multiple possible negative poles or multiple possible continua or both. If these poles and continua are conceptual distinctions without an empirical difference – if the continua are bundled, or strongly correlated – then the concept can be both unidimensional and substantively thick. Imagine, for example, that there are multiple ways that a government can suppress media freedom:

- It can censor news rarely or frequently.
- It can censor only very sensitive matters of national security or anything remotely political.
- It can censor lightly (mild fines) or heavily (murdering journalists).
- It can censor only the most widely consumed media (social and broadcast media), leaving print publications untouched, or it can censor everything, including scientific journals and personal letters and phone calls.

If these types of censorship tend to go together, it is not a problem for continuous conceptualization or measurement. We would find that the media are most free where the government rarely censors anything other than legitimately classified information, any punishments are mild, and elites can still freely report on anything even when the government shuts down, for example, social media posts that encourage terrorism and suicide. We would also find that the media are most repressed where

⁶ Turnout is not quite a perfect example because there can be some conceptual slippage about the denominator. Is it the number of registered voters, of eligible voters, of adult citizens, of adult population, or of total population?

the government constantly monitors and censors even private communications and technical publications, even on non-political matters, and usually imprisons or kills any transgressors. Furthermore, intermediate values of each of these criteria would also co-occur. The multiple conceptual dimensions would collapse to a single empirical dimension that could describe any degree of media freedom or repression in rich detail.

However, if the concept is both definitionally and empirically multidimensional, measuring it as a single dimension is problematic. For example, two simple criteria for a presidential executive are that (1) the head of state and the head of government are the same person, and (2) the head of state is directly elected. If presidentialism is the positive pole of a continuum, the opposite pole would be parliamentary systems in which there is a separate head of state and head of government and the executive is not directly elected. Unfortunately, this hypothetical continuum does not represent the facts well. Out of all the country-years since 1900 with EDI > 0.5, 21.5 percent (such as Argentina and the US) fit the presidential pole and 49 percent (such as Sweden and New Zealand) fit the parliamentary pole. However, 22.1 percent of the cases had a directly elected head of state and a separate head of government, as in Germany and Finland; and 7.4 percent had a fused head of state and head of government who was indirectly elected, as in Switzerland and Botswana. A one-dimensional concept based on these two components over-simplifies the world, to the point of being inapplicable in nearly 30 percent of the country-years.

Making multidimensional concepts useful requires conceptual adjustments. Ignoring multidimensionality creates problems for both measurement and conceptualization. Imagine what would happen if we had five criteria for distinguishing presidential from parliamentary executives, but they each lay on distinct conceptual and empirical dimensions. Mathematically, it is all too easy to combine them into a single index, and the highest scores would do a good job of distinguishing the cases that were presidential in every way from the cases that were parliamentary in every way. However, all the scores in between these extremes would be a meaningless mess: they would tell us nothing about which criteria they satisfied and which they did not. Furthermore, the more criteria we used, the fewer the cases that would have a perfect high or low score and the more cases would be relegated the messy middle.

A better option is to define all the variants of the concept separately, and measure them separately. This option abandons the higher-level, multidimensional concept altogether. This is my recommendation about Liphart's two dimensions of democracy. A second option is to narrow the concept so that it contains only the elements that do line up well on a single dimension. Such a move may feel unnatural or wrong-headed to researchers for whom conceptualization is the primary task and measurement only a secondary one. However, in psychometric research it is standard practice to test a large number of indicators that may be good measures of a latent concept and discard the ones that turn out to lie on some other empirical dimension. Measurement sometimes requires some reconceptualization.

A third option is to think of the concept as radial and measure it as a dichotomy (Collier and Mahon 1993, Møller and Skaaning 2010). Radial concepts have one clear definition of one pole, while there is a residual category of many ways of not being at that pole. For example, we could define a concept of "presidential executives" that includes any number of elements of presidentialism. Instead of a negative pole of this concept, there is only a category of "non-presidential executives," which contains cases that fail to match one or more of the elements of presidentialism. This solution is useful as long as we only need to understand the presidential executives; what is non-presidential is diverse and probably not very useful by itself. A variation on this theme is conceptualization based on fuzzy logic (Goertz 2006, 39-44). An analyst can assign some probability that a case meets each criterion for belonging to the set of, for example, presidential executives, and then combine the probabilities into an overall probability of being presidential. In this approach, both the measurements and the concepts they measure become less clear.

The fourth option is to develop a theoretical rationale for combining multiple concepts that represent different empirical dimensions into a single more complex concept. There are certain logical relationships in concepts that translate well into mathematical relationships. Applying this to a generic concept of democracy, a "weakest link" rule means that a country is only as democratic as its least democratic component. This relationship translates into the minimum of the component values. A "strongest link" rule means that a country is as democratic as its most democratic component and is operationalized as the maximum of the components. A "necessary and sufficient conditions" rule is appropriate in a classical definition in which all of the dichotomous elements must be satisfied for democracy to exist. This rule translates into a multiplicative formula, as 1 * 1 * 1 * 1 * 0 = 0. A very different rule, substitutability, is appropriate when strength on one component can compensate for weakness in another component. The mathematical equivalent of this logic is an additive rule (which includes the arithmetic average): (1 + 1 + 1 + 0)/5 = 0.80. Many other rules are possible, such as weighted averages, conditional relationships, geometric means, logarithms,

exponential functions, and combinations of these. All of these rules apply to continuously measured components, not just to binary components.⁷

V-Dem's most complex aggregation rules are those used for the Elected Officials Index (v2x_elecoff).⁸ The concept it measures appears simple: "[Are] the chief executive and legislature appointed through popular elections?" However, the way the concept is defined depends on whether there is one chief executive or two, what their relative power is, whether they are directly or indirectly elected, whether the legislature is bicameral or unicameral, and what percentage of each chamber is elected. No two of these components are unidimensional. The formula ends up defining each possible path – from electorate to executive, from electorate to legislature to head of state or head of government, from head of state to head of government – and selecting the maximum product of the values along each path. If there is both a head of state and a head of government, the more powerful one (in terms of appointing cabinet members) counts. If there are two chambers, their values are averaged. In essence, officials are as "elected" as the *most* "elected" path of selecting the legislators and the most powerful chief executive.

How to combine independent dimensions to measure a multidimensional concept

Given the importance of paying attention to empirical relationships when defining concepts that are useful, in the sense of being measurable, V-Dem's leaders were initially agnostic about whether to attempt to measure anything as general as "democracy." We already had evidence that democracy has two dimensions. Many of us suspected that there were others and that too much useful information would be aggregated away in a push to create a single overarching concept. My own position was that "one way to measure democracy better is to stop measuring democracy and simply measure its component dimensions instead" (Coppedge 2012, 30). In the end, we decided to generate "high-level indices" (of electoral, liberal, participatory, egalitarian, and deliberative democracy) because if we did not do it, others would; and we believed that we would do a more authoritative job of it. However, we decided to stop at the five varieties and not go, officially, all the way to "Big-D democracy," although we encouraged our members to continue to explore this question.⁹

⁷ When a multiplicative rule is used, however, it makes a difference if some values are zero or negative, so careful thought is required.

⁸ Jan Teorell constructed and revised this index with the input and approval of the other principal investigators. For a complete description, see the V-Dem Codebook v12 (Coppedge et al. 2022, 48-49).

⁹ One product of the ongoing effort to define and measure "Big D" democracy is the Lexical Index of Electoral Democracy (Skaaning et al. 2015). This index ranks six ordinal categories: no-party or one-party elections, multi-party

We started with electoral democracy because it was a component of the four other high-level indices as well as a high-level index on its own. This was a very challenging task that spurring intense deliberation for more than a year involving all the Principal Investigators and at times many of the Project Managers. (For a detailed rationale for all of the high-level indices, see Coppedge et al. 2020, chapter 5.) Combining subcomponents into the Freedom of assembly, Freedom of expression, and Clean elections component indices was relatively easy, as they were quite unidimensional. Combining these three components with the remaining two – Elected officials and Suffrage – was much more difficult because they introduced multidimensionality. Much of the deliberation centered around additive vs. multiplicative formulas and weights. Several of us wrote long data-rich memos arguing for one formula or another. At some points we debated more formulas than there were participants in the deliberation. Rationales took into consideration conceptual analysis, case knowledge, reasoning about substitutability and necessary conditions, explorations of rescaling techniques, some focus-group-like trials, and many graphical comparisons of the implications of each formula for the scoring of countries.

Gradually an agreement emerged as various principles won over more and more of the participants and each succeeding formula made less and less of a difference over its predecessors. We never reached a consensus except that one formula was provisionally "good enough for now." Agreement was possible in part because of the possibility of revisiting it later. However, inevitably, once a solution existed, it became difficult to modify. I cannot defend it as the perfect or best possible aggregation rule, but I do believe it is close, and good enough for most purposes. Thousands of researchers are using it happily.

The formula we settled on is the average of a multiplicative and an additive electoral democracy index because each one has a valid justification. Multiplication operationalizes the belief that each of the five components is essential for electoral democracy.¹⁰ For example, it makes sense that clean elections do not matter if no one has the right to vote, or that universal suffrage is meaningless if there is only one political party or top officials are not elected. Mathematically, each component value sets a maximum value for the multiplicative index. If four components score 1.0 but one scores 0.2, the index value is 0.2. However, there are equally compelling arguments for an

elections for legislature, multi-party elections for legislature and executive, minimally competitive elections, male or female suffrage, and finally universal suffrage. The theory behind it is that each category becomes relevant only when all the preceding conditions have been satisfied. Its scores have good face value, but because it incorporates only a handful of variables it is actually a thinner measure than V-Dem's official Electoral Democracy Index.

¹⁰ Technical note: Before variables are multiplied, they are transformed by the cumulative distribution function so that they vary between 0 and 1.

additive formula. For example, the unelected hereditary Prince Regnant of Liechtenstein has broad executive powers, including the right to appoint and dismiss cabinets and to veto any legislation. Although the parliament is freely elected with multiparty competition, Liechtenstein's Elected officials index would be about 0.5 if V-Dem coded it, putting a ceiling of 0.5 on a multiplicative democracy index. Yet this principality would score very high on freedoms of assembly and expression, suffrage (since 1984, at least), and clean elections. The additive index recognizes that the strengths in these areas partially compensate for an unelected executive. V-Dem's additive index also gives clean elections and the freedoms of association and expression twice as much weight as having elected officials and full suffrage. The average of the multiplicative and additive indices yields a more balanced score that respects the sound arguments on both sides.

Once we settled on the rationale for averaging a multiplicative and an additive index, we applied it to the construction of the other high-level indices. Each one variety is a combination of the Electoral Democracy Index and an extra component: the Liberal, Participatory, Egalitarian, or Deliberative Component Index. For each variety, we calculate the average of the EDI and the extra component and the product of the EDI and the extra component; then we average the resulting additive and multiplicative indices. This formula ensures that only countries with high scores on both components can have the highest score on the combined index, uneven scores across the components lead to heavier penalties, and high scores on some components can partially compensate for low scores on others.¹¹

¹¹ A further technical tweak to these four indices is that in both the additive and multiplicative indices, electoral democracy is raised to a power of 1.585. This exponent ensures that even if the extra component has a value of 1.0, the value of the combined index will be 0.5 if the Electoral Democracy Index is 0.5.



Consequences of V-Dem's Choices

V-Dem's choices about how to define its varieties of democracy and their components have important consequences for its portrayal of democracy and democratization. First, because electoral democracy is an important component of the other four varieties, they tend to be very similar. Figure 2 shows the pairwise relationships between all five varieties for all countries in 2010-2021 using scatterplots and correlations. (On the main diagonal it also shows the distribution of each

Major components since 2010 1.5 1.0 Corr: Corr Corr Corr: 0.874*** 0.711*** 0.761*** 0.762*** 0.5 0.0 1.00 0.75 Corr Corr Corr 0.50 0.754*** 0.764*** 0.872*** 0.25 0.00 0.75 0.50 Corr Corr: 0.581*** 0.731*** 0.25 0.00 0.75 Corr 0.50 0.695*** 0.25 1.00 0.75 0.50 0.25 0.00 0.00 0.25 0.50 0.75 1.00.00 0.25 0.50 0.75 1.00000 0.25 0.50 0.75 0.25 0.50 0.75 1.00000 0.25 0.50 0.75 1.00

index.) Although none of the indices are identical, there are some differences. For example, for **Figure 3**

countries with a Deliberative democracy score of 0.25, the Electoral democracy score ranges from about 0.20 to about 0.55. Nevertheless, all the indices have very strong positive associations with the others. In fact, the correlations are extremely high, ranging from 0.947 to 0.980. These patterns suggest that at this high level of abstraction, the differences, although conceptually meaningful, are empirically small.

Second, much of the similarity is due to the high level of aggregation. As soon as we begin to disaggregate any of these indices into their components, the scores quickly diverge. Figure 3 shows the relationships among the five distinct components of each variety: the Clean Elections Index and the Liberal, Participatory, Egalitarian, and Deliberative Component Indices. Although the correlations are still strong (0.581 for the egalitarian and participatory components to .874 for clean elections and the liberal components), they are all smaller than those in Figure 2, and the scatters make it clear that the range of values for each component is wide at almost any level of the other components. At this lower level of conceptual generality and measurement aggregation, the data are more informative about, for example, which countries are more participatory and which are more egalitarian, and which rate high or low on both dimensions.



Figure 4: Eight specific indicators in six countries, 1900-2021

The more we disaggregate, the more informative V-Dem's indicators become, qualitatively and quantitatively, about the ways in which politics differs from country to country and in the same country over time. Figure 4 depicts trends in eight of V-Dem's specific indicators in six countries from 1900 to the present. If all these indicators represented similar concepts in similar ways, we would see them rise and fall together. In some cases they do, as in the major regime changes in Brazil from the 1950s to the 1970s, and the more frequent regime changes in Ghana. But in all of these countries (and in most of the countries not shown), there are always some indicators that change independently of the others. See, for example, the ability of the Iranian legislature to investigate, very late US respect for the civil liberties of people of color, high court independent in colonial Ghana/Gold Coast, and the noticeable fluctuation in the low levels of CSO repression in the UK compared to the other very stable indicators. Collectively, these indicators – and the hundreds of others that V-Dem updates every year – give us a very detailed account of democratic and non-democratic politics around the world and throughout modern history.

Another way to understand the loss of information that accompanies aggregation to very general concepts, and the gains of information that come with disaggregation, is to calculate the loss of variance due to aggregation. Variance is just a measure of variation in values around some central value. Each indicator has a variance, which we can calculate for samples of country-years. If every country-year has the same value, the variance is zero; if there are big cross-national differences and lots of ups and downs in historical trends, the variance is large. The variance is what carries information – hopefully useful and valid information rather than random noise such as measurement error. Aggregation is a useful thing to do to the degree that it preserves the variance of the indicators that are being aggregated. When indicators are strongly correlated, an aggregated index retains much of the relevant variance; when they are not, then much of the variance is lost. Techniques such as factor analysis can tell us how much of the variance in the original indicators is retained by an index and how much is lost.

An analysis in Chapter 5 of Coppedge et al. (2020, 127-129) (lead author: Jan Teorell) reports these calculations for successive aggregations of 61 variables included in V-Dem's five high-level indices. When aggregated into the 15 components that comprise these indices, 70.6 percent of the variance in the 61 variables is retained and 29.4 percent is lost. Further aggregation into the five component indices sacrifices 36 percent of the starting variance. Aggregating all of the indicators into a single "Big-D" index of "democracy" retains only 57.4 percent of the variance; 42.6 percent is lost.

In this sense, we pay a steep price if we try to reduce "democracy" to a single dimension. A single dimension of democracy is still somewhat meaningful and useful, but there is so much more

that we could learn if we ended our collective fixation on a vague, narrow, reductionist notion of "democracy" and focused instead on its many revealing components.

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