

Measuring Democratic Mood: Methods

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June 2022

1. Overview

Democratic mood captures the extent to which a public offers explicit support for a democratic system and rejects any autocratic alternatives (Linz and Stepan 1996; Mattes and Bratton 2007; Rose, Mishler, and Haerpfer 1998). It is principled or diffuse support for democracy itself, rather than instrumental support for the outputs of government or the incumbent office-holders. Consequently, mood is measured using existing survey questions which ask respondents to evaluate the appropriateness or desirability of democracy; compare democracy to some undemocratic alternative; or evaluate one of these undemocratic forms of government (see next section). Such items are widely used to measure democratic support (e.g., Dalton 2004; Klingemann 1999; Mattes and Bratton 2007; Magalhães 2014; Norris 2011). Questions focusing on related concepts such as satisfaction with the performance of democracy and trust in national political institutions were not included because neither is a valid measure of principled support for democracy (e.g., Bratton, Mattes, and Gyimah-Boadi 2005; Canache, Mondak, and Seligson 2001; Linde and Ekman 2003).

The most recent version of my mood estimates is based on a dataset of 4,536 nationally-aggregated opinions about democracy. These survey responses were gathered by 16 cross-national survey projects, using 1,649 nationally-representative surveys.

These data are, however, fractured, with numerous gaps in the national time series. They are further fragmented by the multitude of different survey measures of democratic support that are fielded in the different survey projects. For example, one widely-used question asks respondents whether democracy is preferable to any other kind of government, whether an authoritarian government can instead sometimes be preferable, or whether it makes little difference. Another question invites respondents to evaluate a system run by a strong leader who does not have to bother with parliament and elections. A third requests that respondents rate the importance they ascribe to having a democratic system. Moreover, even when they adopt broadly similar survey questions, these projects tend to adjust the wording of the questions somewhat. As a result, as many as 61 different survey questions are present in the dataset (depending on how strictly we differentiate based on changes in question wording).

Although data are available for 162 countries, I estimate mood only in the 141 countries in which at least two separate years of survey data were available.

2. Survey Questions Used to Measure Democratic Mood

1. Three statements items

- 1.1. Which of these three statements is closest to your own opinion? (AfroBarometer)
 - Democracy is preferable to any other kind of government
 - Under some circumstances, an authoritarian government can be preferable to a democratic one
 - For someone like me, it does not matter what kind of government we have.
- 1.2. Which of the following statements comes closest to your own opinion? (AsianBarometer)
 - For people like me, it does not matter whether we have a democracy
 - Under some circumstances, an authoritarian government can be preferable
 - Democracy is always preferable to any other kind of government
- 1.3. Which of these three statements is closest to your own opinion? (ArabBarometer)
 - Democracy is preferable to any other kind of government
 - Under some circumstances, a nondemocratic government can be preferable
 - For people like me, it does not matter what kind of government we have
- 1.4. Here are three opinions about political systems. Which one comes closest to your own way of thinking? (EuroBarometer)
 - Democracy is the best political system in all circumstances
 - In certain circumstances a dictatorship could be a good thing
 - Whether we live in a democracy or under a dictatorship makes no difference to people like me
- 1.5. With which of the following phrases are you in most agreement? (Latin American Public Opinion Project)
 - For people like me, it doesn't matter whether a regime is democratic or non-democratic
 - Democracy is preferable to any other type of government
 - Under some circumstances an authoritarian government can be preferable to a democratic one
- 1.6. Which of the following statements do you agree with most? (LatinoBarometer)
 - Democracy is preferable to any other kind of government
 - In certain situations, an authoritarian government can be preferable to a democratic one
 - To people like me it doesn't matter whether we have a democratic government or a non-democratic government
- 1.7. With which of the following statements do you agree most? (New Democracies Barometer)
 - Democracy is preferable to any other kind of government
 - Under some circumstances, an authoritarian government can be preferable to a democratic one
 - For people like me, it does not matter whether we have a democratic or a non- democratic regime
- 1.8. Which of these three statements is closest to your own opinion? (Pew Global Attitudes)
 - Democracy is preferable to any other kind of government
 - Under some circumstances, an authoritarian government can be preferable to a democratic one
 - For someone like me, it does not matter what kind of government we have
- 1.9. Which one of the following three statements do you agree with most? (South Asian Barometer)
 - Democracy is preferable to any other kind of government
 - In certain situations, a dictatorial government can be preferable to a democratic one
 - It doesn't matter to people like me whether we have democratic or non-democratic governance
2. "Churchill" items
 - 2.1. Democracy may have its problems, but it is better than any other form of government. To what extent do you agree or disagree? (ArabBarometer)
 - 2.2. Do you agree or disagree with the following statement: Democracy may have its problems, but it is

still the best form of government (AsianBarometer)

- 2.3. To what extent do you agree or disagree with the following statement: “A democratic system may have problems, yet it is better than other systems?” (Arab Transformation Project)
 - 2.4. Please tell me how strongly you agree or disagree with the following statement: Democracy may have problems but it’s better than any other form of government (Comparative Study of Electoral Systems)
 - 2.5. Do you believe that democracy is the best form of government or is there another form of government which is better? (Consolidation of Democracy in Eastern and Central Europe)
 - 2.6. Democracy may have its problems, but it is better than any other form of government. To what extent do you agree or disagree? (European Values Survey)
 - 2.7. With which of the following phrases do you most agree: in general, despite its problems, democracy is the best form of government, there are other forms of government that can be just as good or even better than democracy, don’t know (Latin American Public Opinion Project)
 - 2.8. Do you strongly agree, agree, disagree or strongly disagree with the following statements: Democracy may have problems but it is the best system of government (LatinoBarometer)
 - 2.9. Democracy may have its problems, but it is better than any other form of government. To what extent do you agree or disagree? (World Values Survey)
3. Strong leader items
- 3.1. There are many ways to govern a country. Would you disapprove or approve of the following alternatives? Elections and Parliament are abolished so that the president can decide everything. (AfroBarometer)
 - 3.2. I will describe different political systems to you, and I want to ask you about your opinion of each one of them with regard to the country’s governance. For each one would you say it is very good, good, bad, or very bad? – A political system with an authoritarian president (non-democratic) who is indifferent to parliament and elections. (ArabBarometer)
 - 3.3. I’m going to describe various types of political systems. Please indicate for each system whether you think it would be very good, fairly good or bad for this country. Governance by a powerful leader without the restriction of parliament or elections (AsiaBarometer)
 - 3.4. Best to get rid of Parliament and elections and have a strong leader who can quickly decide everything. What do you think? (AsianBarometer)
 - 3.5. Do you agree or disagree with the following statements: A few strong leaders would be more useful to the state than the many democrats who are constantly holding meetings and consultations (Consolidation of Democracy in Eastern and Central Europe)
 - 3.6. I’m going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country? – Having a strong leader who does not have to bother with parliament and elections (European Values Survey)
 - 3.7. On some occasions, democracy doesn’t work. When that happens there are people that say we need a strong leader who doesn’t have to be elected through voting. Others say that even if things don’t function, democracy is always the best. What do you think? (Latin American Public Opinion Project)
 - 3.8. There are people who say that we need a strong leader that does not have to be elected. Others say

that although things may not work, electoral democracy, or the popular vote, is always best. What do you think? (Latin American Public Opinion Project)

- 3.9. Best to get rid of Parliament and elections and have a strong leader who can quickly decide everything. What do you think? (New Democracies Barometer)
 - 3.10. Some feel that we should rely on a democratic form of government to solve our country's problems. Others feel that we should rely on a leader with a strong hand to solve our country's problems. Which comes closer to your opinion? (Pew Global Attitudes)
 - 3.11. I'm going to describe various types of political systems and ask what you think about each as a way of governing our country. For each one, would it be a very good, somewhat good, somewhat bad or very bad way of governing this country? – A system in which a strong leader can make decisions without interference from parliament or the courts. (Pew Global Attitudes)
 - 3.12. There are different ways in which a country may be governed. I will read out some suggestions. For each of these would you say that you strongly agree, agree, disagree or strongly disagree? We should have a strong leader who does not have to bother about elections (South Asian Barometer)
 - 3.13. I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country? – Having a strong leader who does not have to bother with parliament and elections (World Values Survey)
4. Military rule items
- 4.1. There are many ways to govern a country. Would you disapprove or approve of the following alternatives? The army comes in to govern the country (AfroBarometer)
 - 4.2. I'm going to describe various types of political systems. Please indicate for each system whether you think it would be very good, fairly good or bad for this country – Military government (AsiaBarometer)
 - 4.3. The army should govern the country. What do you think? (AsianBarometer)
 - 4.4. I'm going to describe various types of political systems that exist in the Middle East and the Maghreb and ask what you think about each as a way of governing for your country. For each one, would you say it is a very suitable, suitable, somewhat suitable or not suitable at all way of governing your country? A system with a strong military force in which elections and competition among political parties are not important (Arab Transformation Project)
 - 4.5. I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country? Having the army rule (European Values Survey)
 - 4.6. The army should govern the country. What do you think? (New Democracies Barometer)
 - 4.7. I'm going to describe various types of political systems and ask what you think about each as a way of governing our country. For each one, would it be a very good, somewhat good, somewhat bad or very bad way of governing this country? The military rules the country (Pew Global Attitudes)
 - 4.8. There are different ways in which a country may be governed. I will read out some suggestions. For each of these would you say that you strongly agree, agree, disagree or strongly disagree? The country should be governed by the Army (South Asian Barometer)
 - 4.9. I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or

very bad way of governing this country? – Having the army rule (World Values Survey)

5. One party rule items

5.1. There are many ways to govern a country. Would you disapprove or approve of the following alternatives? Only one political party is allowed to stand for election and hold office (AfroBarometer)

5.2. There are many ways to govern a country. Would you disapprove or approve of the following alternatives? Only one political party is allowed to stand for election and hold office (AsianBarometer)

6. Evaluate democracy items

6.1. I will describe different political systems to you, and I want to ask you about your opinion of each one of them with regard to the country's governance. For each one would you say it is very good, good, bad, or very bad? – A democratic political system (public freedoms, guarantees equality in political and civil rights, alternation of power, and accountability and transparency of the executive authority) (ArabBarometer)

6.2. I'm going to describe various types of political systems. Please indicate for each system whether you think it would be very good, fairly good or bad for this country – A democratic political system (AsiaBarometer)

6.3. I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country? – Having a democratic political system (European Values Survey)

6.4. I'm going to describe various types of political systems and ask what you think about each as a way of governing our country. For each one, would it be a very good, somewhat good, somewhat bad or very bad way of governing this country? – A democratic system where representatives elected by citizens decide what becomes law (Pew Global Attitudes)

6.5. I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country? – Having a democratic political system (World Values Survey)

7. Religious rule items

7.1. I'm going to describe various types of political systems that exist in the Middle East and the Maghreb and ask what you think about each as a way of governing for your country. For each one, would you say it is a very suitable, suitable, somewhat suitable or not suitable at all way of governing your country? A system governed by Islamic law in which there are no political parties or elections (Arab Transformation Project)

7.2. Listed below are various types of political systems. Please think about each one as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country - Having a system governed by religious law in which there are no political parties or elections? (World Values Survey)

8. Elections items

8.1. There are different ways in which a country may be governed. I will read out some suggestions. For each of these would you say that you strongly agree, agree, disagree or strongly disagree? The country should be governed by those chosen by the people in a fair election (South Asian Barometer)

8.2. Do you think that elections are the best way to choose a government and the authorities of the country or do you not think so? (Consolidation of Democracy in Eastern and Central Europe)

9. Suitability items

9.1. Suppose there was a scale from 0-10 measuring the extent to which democracy is suitable for your country, with 0 meaning that democracy is absolutely inappropriate for your country and 10 meaning that democracy is completely appropriate for your country. To what extent do you think democracy is appropriate for your country? (ArabBarometer)

9.2. Here is a similar scale of 1 to 10 measuring the extent to which people think democracy is suitable for our country. If 1 means that democracy is completely unsuitable for [name of country] today and 10 means that it is completely suitable, where would you place our country today? (AsianBarometer)

9.3. How do you think according to an 11-point scale how much democracy is suitable for your country if “0” is very unsuitable and “10” very suitable? (Arab Transformation Project)

9.4. How suitable is democracy for our country - very suitable, suitable, not suitable or not at all suitable? (South Asian Barometer)

10. Importance items

10.1. How important for you to live in democratically governed country? (European Social Survey)

10.2. How important is it to you to live in a country where honest elections are held regularly with a choice of at least two political parties? Is it very important, somewhat important, not too important or not important at all? (Pew Global Attitudes)

10.3. How important is it to have honest elections held regularly with a choice of at least two political parties in our country? Is it very important, somewhat important, not too important or not important at all? (Pew Global Attitudes)

10.4. How important is it for you to live in a country that is governed democratically? On this scale where 1 means it is “not at all important” and 10 means “absolutely important” what position would you choose? (World Values Survey)

11. Desire for democracy items

11.1. To what extent do you want our country to be democratic now? (AsianBarometer)

3. Excluded Survey Items

Kurzman (2014) notes that there appears to be serious translation errors in some of the questions relating to democracy in the 3rd and 4th waves of the World Values Survey. For example, as he describes, the Indonesian survey of 2001 asked respondents their opinion on having military *rules*, rather than military rule. The vast majority of Indonesians unsurprisingly favored having rules. Survey responses from the following items-year-country combinations from the World Values Survey were therefore excluded from the analysis due to evidence of, or suspicion of, poor translations and severe bias:

- Vietnam: Military rule 2001; Strong leader 2001
- Albania: Military rule 1998
- Indonesia: Military rule 2001 & 2006

- Iran: Military rule 2000; Strong leader 2000 & 2005
- India: Strong leader, all years.
- Pakistan: Military rule 1996 & 2001; Strong leader 1996 & 2001
- Kyrgyzstan: Strong leader 2003 & 2011
- Romania: Strong leader 1998, 2005 & 2012
- Egypt: Strong leader 2012

In addition, responses to the following sets of items were not included when measuring democratic mood:

- Items measuring satisfaction with the performance of democracy (e.g., “on the whole, how satisfied or dissatisfied are you with the way democracy works in [country]?”)
- Items tapping evaluations of the political and economic performance of democracy (e.g., “Which of the following statements comes closer to your own view? Democracy is capable of solving the problems of our society; democracy can not solve our society’s problems.”)
- Items measuring respondents’ understandings of the term “democracy” (e.g., “For each of the following things, how essential do you think it is as a characteristic of democracy? – Governments tax the rich and subsidize the poor.”).
- Items gauging trust in national political institutions (e.g., “I’m going to name a number of institutions. For each one, please tell me how much trust you have in them. – Parliament”).

4. Microlevel Coding of Survey Responses

The latent trait measurement model takes a binomial response, which requires two pieces of information: the number of “trials” and the number of these that were “successful.” I therefore gathered two quantities for each survey question. First, the number of respondents asked each relevant survey question (this was usually, but not always, the full sample size). Second, the number of respondents providing a response that was supportive of democracy. This may include the response “democracy is preferable to any other kind of government” in the three statements question, disagreeing that the military should rule, or offering a response above the median on a 0-10 scale for the question regarding the importance of democracy to the respondent. All other possible responses (i.e., the difference between the sample size and the number of supportive respondents) were coded as not supportive of democracy. These non-supportive respondents may have actively opposed democracy, (e.g., “an authoritarian government can be preferable to a democratic one”), chosen an intermediate response (e.g., “for someone like me, it does not matter what kind of government we have”), responded with “don’t know,” or refused to provide any response.

5. Latent Variable Model

Democratic mood is measured using the dynamic Bayesian latent trait model developed by Claassen (2019). In particular, Claassen’s 6th model, which includes item intercepts / difficulty parameters as well as item slopes / discrimination parameters, is used here.

The observed number of respondents y supporting democracy for each country i , year t ,

and survey item k is modeled as a binomial distributed count:

$$y_{ikt} \sim \text{Binomial}(s_{ikt}, \pi_{ikt}).$$

A beta prior is then used to model the probability parameter π . This produces a beta-binomial distribution, which allows for some additional dispersion in the observed survey responses beyond that induced by sampling alone:

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

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

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

The expectation parameter η is then modeled as a function of the latent country-year estimates θ , item location parameters λ , item discrimination parameters γ , as well as item-country error parameters δ . The λ parameters adjust for the effects of item-specific bias, the γ parameters allow the strength of the relationship between observed responses and latent traits to vary across the items, while the δ parameters adjust for cross-national “non-equivalence” bias.

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

The δ parameters are centered at zero, with standard deviation estimated, while the λ and γ parameters are modelled jointly using a bivariate normal distribution. This allows item intercepts and slopes to be correlated, with the ρ parameter capturing the degree of covariation:

$$\begin{aligned}\delta_{ik} &\sim \text{N}(0, \sigma_\delta^2) \\ \begin{pmatrix} \lambda_k \\ \gamma_k \end{pmatrix} &\sim \text{N} \left[\begin{pmatrix} \mu_\lambda \\ 0 \end{pmatrix}, \begin{pmatrix} \sigma_\lambda^2 & \rho \sigma_\lambda \sigma_\gamma \\ \rho \sigma_\lambda \sigma_\gamma & \sigma_\gamma^2 \end{pmatrix} \right]\end{aligned}$$

Finally, the latent opinion estimates are allowed to evolve smoothly over time by adding a dynamic linear model:

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

Several computational refinements, compared to the original model developed by Claassen (2019), have been included. First, ragged country-by-year arrays are used to accommodate the varying length of national latent opinion time-series (due to the varying years in which survey measurement commenced). I also non-centered parameterizations for all variance terms, e.g., $\sigma_{\theta^{(m)}}$, $\sigma_{\gamma^{(m)}}$, and $\sigma_{\delta^{(m)}}$. These non-centered parameterizations include standard-normally distributed redundant parameters, e.g., $\nu_{ik}^{\delta^{(m)}}$ which shift variance and covariance terms away from zero, making MCMC sampling more efficient:

$$\delta_{ik}^{(m)} = \sigma_{\delta^{(m)}}^2 \times \nu_{ik}^{\delta^{(m)}} \quad (1)$$

The item-country variances are given weakly-informative half-Normal priors, e.g., $\sigma_\delta^{(m)} \sim \text{N}^+(0, 1)$. The variance-covariance matrix for the item intercepts λ and slopes γ is split into two

variances and correlation term, with the former receiving a half-Normal $(0, 1)$ prior and the latter an LKJ (2) prior. Item intercepts and slopes are identified by setting their expectations: the former at the log of the mean proportion expressing support for democracy, and the latter at 0.5. The beta-binomial dispersion parameter ϕ receives a gamma $(3, 0.04)$ prior. Since latent opinion is modeled as a function of its value in the previous year, we estimate initial values for each country, in the year preceding the first estimates based on data. These initial values receive a $N(0, 1)$ prior.

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