Democracy, Public Support, and Measurement Uncertainty*

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Do democratic regimes depend on public support to avoid backsliding? Does public support, in turn, respond thermostatically to changes in democracy? Two prominent recent studies (Claassen 2020a,b) reinvigorated the classic hypothesis on the positive relationship between public support for democracy and regime survival–and challenged its reciprocal counterpart–by using a latent variable approach to measure mass democratic support from cross-national survey data. But such approaches come with concomitant measurement uncertainty, and neither study incorporated this uncertainty into its analyses. In this letter, we correctly take this uncertainty in account and show that there is no support for the conclusion of either study. We then work to minimize the measurement uncertainty in public support by bringing additional survey data and a superior model of public opinion. Even with these improvements, however, our analyses fail to yield evidence in support of either hypothesis. These findings underscore the necessity of accounting for measurement uncertainty. [150/150 words]

It has long been argued that democratic regimes and public support for them are mutually reinforcing: that high levels of public support ensure democracies remain strong, and that experience with democratic governance generates robust public support (see, e.g., Lipset 1959; Easton 1965). But the evidence for either side of this claim has been decidedly mixed. Countries with greater democratic support have been found to become stronger and more stable democracies (e.g., Inglehart and Welzel 2005, 251-254) and just the opposite (Fails and Pierce 2010, 182-183). Similarly, studies have alternately found that more experience with democracy yields more democratic support (e.g., Fails and Pierce 2010, 183; Wuttke, Gavras and Schoen 2020, 5-6) or instead that long-established democracies are suffering from democratic fatigue (e.g., Denemark, Donovan and Niemi 2016; Foa and Mounk 2017).

One important reason for these mixed results is the difficulty in measuring democratic support over time and across many countries. Public support for democracy cannot be directly observed, and its incorrect measurement will limit inferences about the relationships between public opinion and institutional development. Further, the survey data available across countries and over time on support for democracy—or indeed most topics in public opinion—are sparse and incomparable,

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greatly hindering broadly comparative research. Recently, a few pioneering studies have sought to overcome the hurdle of sparse and incomparable data by developing latent variable measurement models of public opinion (see Caughey, O'Grady and Warshaw 2019; Claassen 2019; Solt 2020*b*). A pair of prominent recent works took advantage of this latent variable approach to measure democratic support for over one hundred countries for up to nearly three decades and to then assess, respectively, its consequences for and roots in democratic change (Claassen 2020*a*,*b*). These works concluded, first and supporting the classic argument, that mass support had a positive impact on democratic change, especially the endurance of democracy (Claassen 2020*a*, 127-130), and, second and directly contrary to it, democratic change has a thermostatic effect on public support, that is that, rather than generating their own support, deepening democracy provokes a backlash and it is instead democratic backsliding that calls forth greater public support (Claassen 2020*b*, 46-50).

The models employed in these studies' analyses, though, do not account for uncertainty in their measurement of democratic support. Because they are unobserved, latent variables are inherently accompanied by measurement uncertainty. To leave this uncertainty unacknowledged is to make the implausible assumption that the latent variables are measured perfectly, an assumption which distorts both statistical and substantive inference (see, e.g., Crabtree and Fariss 2015; Juhl 2019).

In this letter, we reexamine the classic arguments about support for democracy and democratic change tested in these two pieces while correcting this oversight. In addition to incorporating the measurement uncertainty, we also sought to reduce it by employing a superior model of public opinion, the Dynamic Comparative Public Opinion (DCPO) model developed by Solt (2020*b*), and more data to estimate democratic support for 144 countries for up to 33 years between 1988 and 2020. Our analyses reveal that the significant relationships between public support and democratic change disappear once measurement uncertainty is taken into account, both in replications with the studies' original data and in our extension DCPO analyses that incorporate additional data. That is, once measurement uncertainty is accounted for, there is no empirical support for either claim put forward in these two works: declining democratic support does not signal subsequent democratic backsliding, and changes in democracy do not spur a thermostatic response in democratic support.

There are many plausible explanations for these null results, both methodological and theoretical. Methodologically, one possible issue is that support for democracy is multidimensional, and

the survey questions used to measure it—which ask respondents to assess the desirability or appropriateness of democracy, to compare democracy to some undemocratic alternative, or to assess one of these alternatives—simply do not capture all of the dimensions relevant to democratic change, such as commitments to political equality and freedom of expression (see Schedler and Sarsfield 2007; Wuttke, Schimpf and Schoen 2020). Another is that the relationships among these survey items have varied substantially over time (see Wuttke, Gavras and Schoen 2021); this would violate the assumptions of the public opinion models used and would yield faulty estimates of democratic support. A third is that these survey questions do not ask respondents how they prioritize democracy relative to other values with which it may come into conflict, such as their partisanship, and so miss capturing the true extent of support democracy would find among the public when public support was actually needed (see Carey et al. 2020; Graham and Svolik 2020; McCoy, Simonovits and Littvay 2020).

From a theoretical perspective, the effect of democracy on public support may depend not on its mere existence but on its effectiveness (see, e.g., Magalhães 2014) and particularly with regard to redistribution (see, e.g., Krieckhaus et al. 2014). Similarly, the effect of public support on democracy may depend on the extent to which those who support democracy are also dissatisfied with the current regime's performance; that is, that it is not democratic support that is important to democratic change, but rather unsatisfied democratic demand (see, e.g., Qi and Shin 2011). Of course, it could in fact be that democratic change does not actually depend on public opinion of any sort at all but instead is an elite-driven phenomenon (see, e.g., Levitsky and Ziblatt 2018).

We draw two conclusions. First, as latent variable measurement models become more commonly used, that it is absolutely necessary for researchers employing them to incorporate the associated uncertainty into analyses. Second, at a time when democracy as seen as under threat around the world (e.g., Diamond 2015), taken together, Claassen (2020*a*,*b*) send what is ultimately a reassuring message: the fate of democracy rests with us, the public, and when democratic institutions are undermined, we will swing to their support and constitute "an obstacle to democratic backsliding" (Claassen 2020*b*, 51). Both of these assertions may well be true, but the evidence we have, properly assessed, does not provide support for them. There is no room for complacency.

Method

We proceed in three steps. In our first step, we reproduce the original analyses of Claassen (2020*a*,*b*), which included only the point estimates of the latent variable of democratic support and so exclude its measurement uncertainty. In the second, we collect the original cross-national survey data, replicate the latent variable measure of democratic support used in the two articles, and conduct the articles' analyses again, this time maintaining the entire distribution of estimates of democratic support in each country-year. As our third step, we collect even more survey data—increasing these source data observations by one-fourth—and re-estimate democratic support using the superior DCPO measurement model, then conduct the two articles' analyses once more, again maintaining the full distribution of estimates to preserve measurement uncertainty.

Incorporating Uncertainty

Although measurement uncertainty has yet not attracted attention in the field of comparative public opinion (see, in addition to the works examined here, O'Grady and Abou-Chadi 2019), latent variables are estimated with a quantifiable amount of measurement uncertainty, and ignoring that uncertainty in analyses can bias coefficient estimates and standard errors. In light of this, recent studies measuring other latent variables have recommended incorporating their measurement uncertainty in analyses (see Solis and Waggoner 2020, 18; Gandhi and Sumner 2020, 1553), and research examining the consequences of public opinion in the United States has done so (see, e.g., Kastellec et al. 2015, 791-792; Caughey and Warshaw 2018, 254).

Therefore, after we replicate the original analyses that used only the point estimates of democratic support, we incorporate the full distribution of the latent variable estimates. To do this, we replicate the latent variable estimation from the original survey data, duplicate each article's analysis dataset 1,000 times, and assign to each a different random draw from the posterior distribution of public democratic support. Then we perform each analysis repeatedly on its respective collection of datasets, and combine the results following the rules set out in Rubin (1987; see, e.g., Schnakenberg and Fariss 2014; Crabtree and Fariss 2015).

A Better Measure of Democratic Support and More Data

As a further test of the classic arguments on democracy and public support, we apply the superior DCPO model to a bigger data set. The DCPO model has several advantages over the Claassen (2019) model used in Claassen (2020*a*,*b*). First, while the Claassen (2019) model dichotomizes responses and so discards some information provided by 50 of the 52 survey items employed in Claassen (2020*a*,*b*), the DCPO model makes use of all of the information available from these ordinal items (Solt 2020*b*, 5). Second, as the DCPO model includes both parameters for the dispersion of each survey item and for the standard deviation of aggregate public opinion in each country-year, it is a complete population-level item-response model and so, unlike the Claassen (2019) model, is explicitly derived from an individual-level model of survey responses (Solt 2020*b*, 3-4; see also **?**). Third, to produce more sensible estimates of uncertainty for observations at the extremes of the scale (see Linzer and Staton 2015, 229), the DCPO model places bounds on its estimates of public opinion (Solt 2020*b*, 8). Further commending the DCPO model to us—and demonstrating that its advantages make a difference—the validation tests in Solt (2020*b*, 10-12) reveal that it fits survey data on democratic support better than the Claassen (2019) model does.

In addition to applying the superior DCPO model, we also assembled as much available data on democratic support as possible. We employed 4690 national opinions on democracy from 1834 national surveys, representing a 26.2% and 33.3% increase respectively over the 1165 opinions and 1376 national surveys used in Claassen (2020*a*,*b*).[1] We used the `DCPO` package for R (Solt 2020*a*) to estimate the DCPO model on this expanded dataset.

Results

The results are presented in Figure 1 (and numerically in Appendix Table A1). In the pooled model (left panel), the aggregated measurement of democratic mood shows a positive effect on the institutional democratization in Claassen's original model, and the effect is statistically significant at the 0.05 level.

However, when accounting for the uncertainty of the latent variable measurement of the mood,

[1]These figures represent the survey data actually used in estimating public support for democracy; as in Claassen (2020*a*,*b*), countries for which two separate years of survey data were not available were excluded.

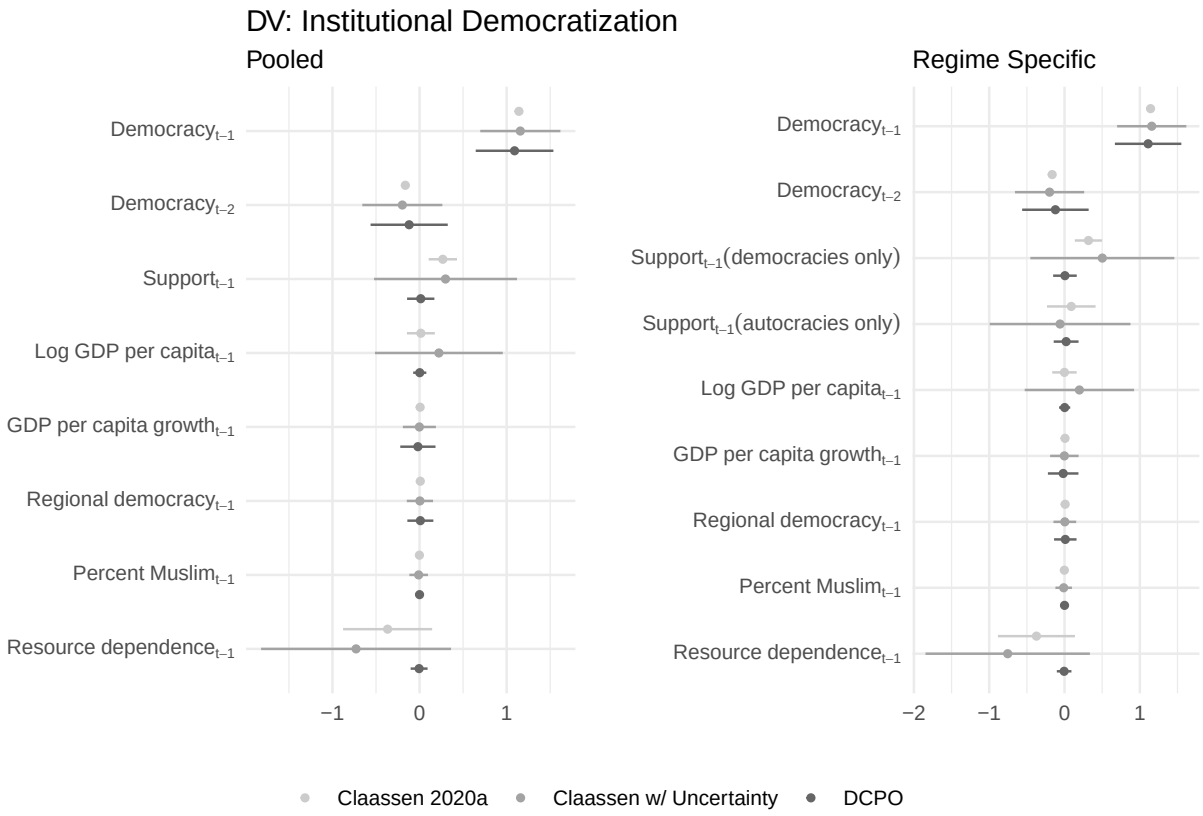

Figure 1: The Effect of Democratic Support on Democratic Institutions

the significance disappears. We applied the DCPO and added one-third more data, resulting in a saliently shrink of the range of measurement uncertainty, but the confidence intervals still cut zero—that is, remaining statistically insignificant.[2] A similar phenomenon also happens on the estimates of, for example, the second-time-unit lag of democratization and resource dependency.

We further examined Claassen's regime specific model (Claassen 2020*a*, Model 2). The originally significant contribution of democratic mood in democratic regimes disappears, regardless whether more information and better method are applied.

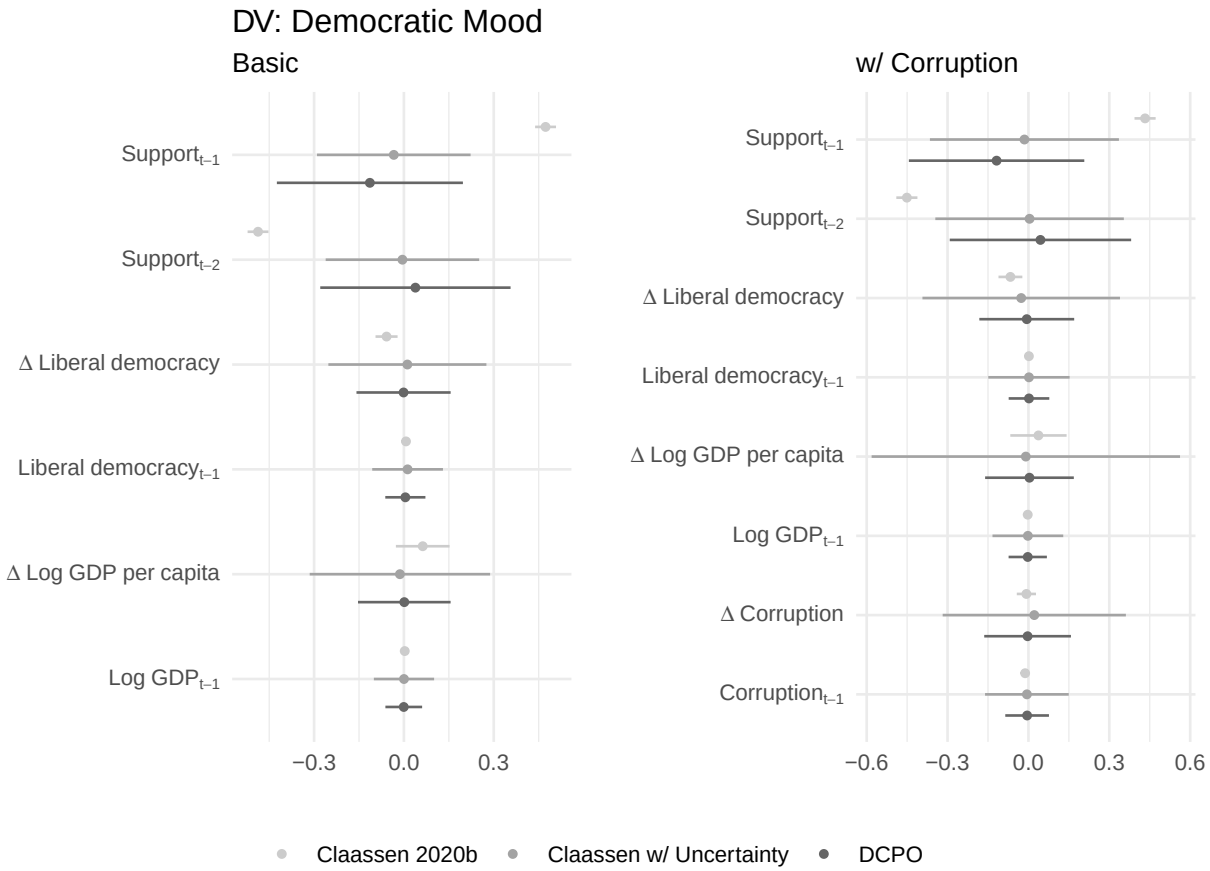

Figure 2: Effects of Democracy on Change in Mood

The importance of accounting for the measurement uncertainty appear more evident when the relevant variable plays as the dependent variable. In Figure 2, we examined the thermostatic model of democratic mood (Claassen 2020*b*). The estimates without taking uncertainty into account imply that democratic mood decreases along with the progress of democratization. Nevertheless,

[2]The point estimates also alters. We attribute it to more information and better measuring method by DCPO.

this effect no longer holds when the measurement uncertainty is involved.

As previous operations, we tested if this alteration is caused by the data scarcity or estimating inefficiency. When more data and better method are applied, the confidence intervals do shrink yet remain statistically insignificant. We observed similar changes after adjusting the effect of domestic corruption (Claassen 2020*b*, 41).

Discussion

In short, the main empirical findings about the estimated effect of public democratic support on democracy or vice versa are not replicable when measurement uncertainty is accounted for, even using better measurement and more data.

There are several potential causes for the null results. First, the survey items we used might not capture real public democratic attitudes since the number of indicators of democratic support is limited compared to indicators of other concepts like gender-egalitarianism (Solt, 2021??). Second, even if survey questions capture the support for the generic concept of democracy, they might still not be sufficient to capture the multi-faceted feature of democratic support due to the variation in understanding the concept across countries or over time or within country (Wuttke, Gavras and Schoen 2021; van Ham et al. 2017). As van Ham et al. (2017) pointed out, without considering the varying understanding of democracy due to political and social development, the unchanged survey questions decrease the comparability of time series data. Third, these survey items might capture public democratic support, but we do not have enough data to compensate for the fragmentation and sparseness of available comparative public opinion data, which is doomed to high uncertainty. Given the nature trail of latent variables and specific characters of comparative public opinion data, performing analyses based on the strong assumption that comparative public attitudes are perfectly measured might exaggerate scholars' certainty methodologically and obscure a proper substantive evaluation of theoretical claims.

In addition, there are alternative explanations about the relationship between public attitude and democratic changes. First, democratic changes might be more associated with elites than with the public. Elites are thought to play a critical role in preserving democratic stability by respecting the limits on their behaviors (Weingast 1997). However, after the Cold War, many democracies

backslid and were imperiled worldwide because elected leaders lacked commitment to democratic norms and the public even did not notice that (Bermeo 2016; Levitsky and Ziblatt 2018; Waldner and Lust 2018).

Second, given that the measures for democratic development are from experts, the gulf between public perception and elites' perception on important democratic principles (McClosky 1964) might result in the disconnection between public perception of democracy and experts' measures of the levels of democracy. A recent study also lent support to that claim by demonstrating the polarized public cannot reach a consensus with experts on democratic erosion (Carey et al. 2019).

Third, the study of democratic support is suffered from "inputism," which focuses on public evaluations of input-side, institutional designs, but ignores the output-side, policy outcome or implementation; however, the output-side better predicts democratic support (van Ham et al. 2017).

Lastly, verbal support in a pro-democratic stance is usually higher than behavioral commitments (Prothro and Grigg 1960). Since there is a difference in public support for democracy between "in the abstract" and "under specific propositions" (Bartels 2020), recent studies questioned whether conventional measures of public support for democracy could capture real public commitment to democracy. By using survey experiments, Graham and Svolik (2020) pointed out a "fundamental blind spot" in traditional measures of public democratic support: general survey questions cannot capture voters' willingness and behavioral commitment to democratic principles in specific context where voters need to choose between democratic norms and their partisan identification or policy preference. "fail to capture voters' willingness to act on their commitment to democracy precisely when democracy is at stake" It turned out that voters subordinated democratic norms to their partisan preference by not electorally penalizing their candidates who endorse measures that violate norms. Furthermore, voters support/encourage democratic norm-eroding policies when their co-partisans are in power rather than only tolerating anti-democratic policies (Carey et al. 2020).

Conclusion

In this note, we reexamined the findings from Claassens' (2020*a*; 2020*b*) paper that public support helps the survival of democracy and democratic development has a thermostatic effect on public

support for democracy. We demonstrated the importance of incorporating measurement uncertainty in analyzing the relationship between public support and democratic development. Even using more data and the sophisticated DCPO model, the measurement uncertainty made the original positive relationships irreplicable regardless whether public support was an independent or dependent variable.

The high uncertainty might come from several sources: the problems of self-report survey data that might not capture the public attitude, the sparse data on the complex concept of democratic support, the relationship between democratic changes and elites, the different public understanding of democracy, and the gap between the public attitude and public commitment.

Although we could not identify or exclude any one of these possible sources in this paper, a basic lesson from this reexamination is simple: given the inherent uncertainty accompanying latent public opinion and its propagated effects in analyses, incorporating measurement uncertainty is a safer way to infer the relationship between public opinion and other substantive interest especially in comparative politics, in which the measurement uncertainty of public opinion is further exacerbated by the sparse and incomparability of indicators.

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