## Democracy, Public Support, and Measurement Uncertainty Memo to Reviewers

Thank you for your helpful comments, as well as your general enthusiasm for this piece. As you will see below, the reviews were each individually very constructive—and together usually so, as concerns raised by one review were often met by suggestions offered in another. Collectively, the reviews motivated us to ensure the piece, as a letter manuscript, was tightly focused on its twin main points: that, in general, researchers working with latent variables must take care to include in their analyses the uncertainty in these measures, and, specifically, taking uncertainty into account reveals that there is no evidence for the assertions that democracies' fates depend on public support and that their publics will rally to them if they are weakened. Indeed, your comments (and those of the editor) gave us the courage to be truly ruthless in stripping out any and all extraneous material that distracted from these two crucial points.

We set out a list of the specific points raised in the reviews and our responses to them below, roughly in the order they appear in the text:

- 1. **Method** A key omission in our original submission, given our goal of underscoring the "absolute necessity" of taking quantified measurement error into account, is that we ourselves neglected the measurement error in the V-Dem democracy data and the Transparency International corruption data. We are extremely grateful to R1 and R2 for alerting us to the beam in our own eye while we still had opportunity to pluck it out.
- 2. Method: Incorporating Uncertainty R1 and R2 both raised the question of whether the approach for incorporating uncertainty we used was the most appropriate for this application, and R4 asked for additional detail on how uncertainty was incorporated. Although R2 correctly (and helpfully!) noted that the approach we had employed is the same one explicated by Blackwell, Honaker and King (2017b), they also suggested we use the Method of Composition (MOC) that was first put forward by Tanner (1993) and introduced to political science by Treier and Jackman (2008). As this technique has become the standard method for incorporating uncertainty in the Americanist literature using Multilevel Regression and Poststratification (see, e.g., Kastellec et al. 2015; Caughey and Warshaw 2018), which is after

all also a latent variable model of public opinion, we were pleased to adopt this suggestion. We provide a full description of the MOC technique in the Supplementary Information. Further, to help ensure that incorporating uncertainty is as easy as possible for scholars working with latent variables of cross-national public opinion, we are including in our replication materials a suite of R functions implementing the MOC that are tailored to this application.

- 3. Method: Incorporating Uncertainty R4 suggested that it would be helpful to provide citations for the point that neglecting to include uncertainty can bias coefficients along with standard errors. We agree and so drop cites here to Blackwell, Honaker and King (2017b, 318-319) and Blackwell, Honaker and King (2017a, 360-361), who present simulations that, while aimed at other issues, nonetheless illustrate the point neatly. We also cite to Caughey and Warshaw (2018, 254), who, like others familiar with the problem, simply state the fact and move on.
- 4. Method: Better Estimates of Public Support and Adding More Data R1 and R4 asked for more detail on the differences between the DCPO model and the latent variable model used by Claassen. R2 indirectly raised the same issue, asking about the consequences for thermostatic models of employing a random-walk prior in the DCPO model of democratic support—when actually both DCPO and the Claassen model use the same random-walk prior. Given that the DCPO model's advantages ultimately do not have a payoff in this case, we concluded that its inclusion in this 4000-word letter is an unnecessary distraction from our main points. So we took the other suggestion from R1 on this topic to simply drop DCPO from the text entirely and moved the analyses with the DCPO estimates to the Supplementary Information.
- 5. **Method: Adding More Data** Not directly related to a specific comment, but the opportunity to revise and resubmit allowed us to incorporate even more survey data that was released since our original submission (most notably from the ongoing release of Wave 7 of the World Values Survey). Thanks again!
- 6. **Results** R1 and R2 expressed concern about the results of the models of democratic support presented in Figure 2, and especially that the coefficients for the lags of democratic support

in the models incorporating uncertainty were approximately zero. R1 wrote, "The effects of lagged democratic support are also zero, which is even more implausible because it suggests that democratic support in one year is entirely disconnected from its levels in previous years. In other words, Denmark is as likely to have a low value next year as China is likely to have a high value." R2 summarized the issue even more pithily, "some explanation is required, or else readers will think that some mistake has been made." The explanation is that the analyses from Classen (2020b) are error correction models, and so the dependent variable is not the level of democratic support but the *change* in democratic support; the mistake was that our captioning to the figure was badly misleading (it read simply, "DV: Public Support for Democracy" and "The Effect of Democracy on Public Support"), and there was nothing in our discussion to bring readers back on track. In other words, it is not the case that Denmark is as likely to have a low value as China is to have a high one, but rather that Denmark is as likely to have a decline as China is to have a gain. We have labeled the plot correctly now. These results, we note, give further grounds for R2's concern about random-walk priors in latent variable models of public opinion when the estimates are then used in thermostatic models: much of the year-to-year change in democratic support is simply random—only 44% of the country-years in Claassen's sample are estimated from survey data, leaving most with only the prior—so it is not surprising that these changes are not well predicted by the variables in Claassen's model. Ignoring the uncertainty in the estimates averages away this randomness and may, as here, yield conclusions that cannot be supported.

7. Results R1 noted that in addition to the pooled OLS models we had presented in Figure 1 and the ECMs we had present in Figure 2, Claassen (2020a) includes a pair of system GMM models and Claassen (2020b) includes an additional specification that examines different aspects of democracy and a set of first-difference models. We now present the results of all of these secondary models as well. (As the analyses presented in Table 2 of Claassen (2020a) consider the relative strengths of the performances of democratic support and democratic satisfaction, rather than the relationship between democracy and democratic support that we focus on here, we followed the APSR editor's advice and did not replicate those.)

## 8. Discussion

[need #19, #21]

## References

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