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 very constructive individually—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 employed 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 (2017), 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 Materials. 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: Better Estimates of Public Support and More Data Adding 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 Materials.
- 4. **Method:** Adding 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).
- 5. Results R1 and R2 expressed concern about the results of the models of democratic support presented in Figure 2, and specifically 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 Claassen (2020b) are error correction models, and so the dependent variable is not the level of democratic support but the change in democratic support; in other words, the

mistake was that our caption to the figure was badly misleading, and there was nothing in our discussion to bring readers back on track. 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 grounds for R2's concern for 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.

6. **Results** R1 noted that in addition to the pooled OLS models we present in Figure 1 and the ECMs we present in Figure 2, Claassen (2020a) includes a pair of system GMM models and Claassen (2020b) includes a pair of first-difference models. We include the results of our three-tiered replication and extension for Claassen's secondary models in the Supplementary Materials; these additional analyses yield the same substantive conclusions as those we present in the text.

[need #15, #19, #21]

References

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