Many thanks to the authors for their responses and clarifications. The rationale for conducting this study using the 22-item RWA scale is now clear to me, and I agree that it is worthwhile to test the predictions that arise from system justification theory and the dual process model, which conceptualise right-wing authoritarianism as a unitary construct. I think the authors make an important point when they state, in their response to my comment, that “This is, of course, a direction for future research that is worth exploring, particularly whether or not the three separate subscales map better at a neural level than the superordinate RWA scale.” I suggest that this point should be included in the manuscript.

The explanation of the predictions of overlapping and distinct brain regions is clear now.

There are two points in the section added to page 16 of the manuscript that I think require some clarification – see table below. I also have some feedback on the Whole Brain Analysis, and two additional queries about the specification of the ROIs (see table below). I apologise that I did not raise these queries about the ROI specifications in Round 2.

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| Page  | Line(s)  | Comments  |
| 16 | 11 | exploring RWA as a stable unidimensional traitThis reads as ambiguous to me. A more precise phrasing might be something along the lines of “exploring whether RWA – conceptualised as a unidimensional trait – is reflected in brain structure”.  |
| 16 | 19-22 | Moreover, one study conducted a set of factor analyses of RWA (and SDO) showing that both multidimensional and unidimensional models of RWA demonstrate acceptable fit to response data granted the items themselves were already divided into their respective subscales (Kandler et al., 2016).This is quite difficult to follow, especially the statement, “granted the items themselves were already divided into their respective subscales”. Was this a factor analysis of the same 22-item RWA scale used in the present study? In which case, as the authors have pointed out, factor analysis would not be appropriate or informative, given the double- and triple-barrelled nature of several items. It would also be helpful to specify (a) if the multidimensional model(s) that demonstrated acceptable fit was a 3-dimension model, and if more than one multidimensional model demonstrated acceptable fit; and (b) whether the multidimensional model(s) or the unidimensional model demonstrated better fit to the data. I think it would also be appropriate to specify the number of participants whose data were used in Kandler et al.’s factor analysis.  |
| 19 | 12 | We intend to measure the mean grey matter volume (GMV).I’m not sure what is meant by ‘mean’ here. As I understand it, the authors will conduct a standard mass univariate multiple regression VBM analysis. Usually, whole-brain interrogation of the results would proceed thus: Once the GLM has been fitted, one uses the information from the resulting beta and ResMS images (as well as the SPM.mat file) to generate images of t statistics. Contrast vectors are specified, which indicate the linear combination of beta images to test. These linear combinations are then used to identify any regions (clusters of voxels) in which the contrast is significantly different from zero.  |
| 19 | 14 | It is true that the “factorial design” (including multiple regression) models in SPM use ordinary least squares, but this is a confusing way of explaining the model that will be applied. Note that SPM applies the regression model in every voxel (mass univariate analysis), so it is not mean grey matter volume that is the dependent variable in each multiple regression analysis, but smoothed, corrected grey matter volume estimates for each participants for that voxel.  |
| 21 | 7 | What is the justification for averaging the mean volumes from the left and right amygdala? Why not conduct a region of interest VBM using a bilateral amygdala mask? As it might be the case that only left or right amygdala is associated with RWA/SDO, or that RWA/SDO scores are only associated with regional grey matter volume in a part of the 20mm spheres used as amygdala ROIs. |
| 21 | 10 | Why is the region of interest analysis confined to the left insula? Hypothesis 4 does not specify left insula, which I took to mean that the hypothesis was bilateral.  |