Online appendix

Individual Differences Exist in Individual Characteristics: The Role of Disposition in "Voice and Equality"

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Data and Methods Limitations

The data stem from a relatively homogeneous sample of individuals in terms of age (all respondents with ages between 53 and 61 years), geographical location (all from Minnesota), and in terms of racial/ethnic composition (all white respondents). Such an increased homogeneity has potential implications for the variation found and the sources underlying this variation: with high degree of similarity between the individuals completing the survey, the remaining between-individual differences are more likely to be linked to genetic and unique environmental forces than in more heterogeneous samples.

More generally, the assessment of heritability estimates recovered from twin samples is discussed by (Benjamin et al. 2012), indicating that, benchmarked to the molecular-genetic-based heritability estimates, results from twin studies could be biased upwards. One additional concern is related to the assumptions behind twin, especially the no assortative mating and the equal environment assumptions. When working with twins reared together, this latter

assumption allows researchers to treat the between-pair correlation of the shared environmental (family socialization) factors fixed at 1, independent of zygosity Numerous tests have been conducted, so far finding no equal environments bias for political traits (Hatemi et al. 2009; Littvay 2012; Smith and Hatemi 2013). Regarding assortative mating, extended family designs capitalizing on data and within-family relationships (parents, siblings, spouses, etc.) allow for the direct modeling of such effects, and using these more powerful designs, Hatemi and colleagues (2008; 2010; 2009) find that the estimates derived from twin studies of political attitudes are, if anything, biased downwards because spouses assort on political traits more than almost any other trait.

Finally, the choice to use the average of the five participatory behaviors as outcome variable comes with potential risks, related to how the phenotype of interest is scaled and also to systematic item properties (for more discussion on IRT models combined with twin studies, see Molenaar and Dolan 2014; Schwabe and van den Berg 2014a). The benefits are very important though. Such an operationalization fits with much of the political science literature practices and thus assures that our results are easy to transfer in terms of comparison.[1] With this in mind, we believe the advantages of the data are also considerable, making it possible to offer a relevant contribution to the study of political attitudes and behaviors.

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[1] Also, as mentioned in Table 12.1 notes, excluding one item where most people answered that they did not hold governmental positions has no influence on our findings.

The goal of the study was to collect extensive political data from a genetically informative sample, where the emphasis is on the use of classic and validated measures of political attitudes. Compared to other twin and family studies with potentially better data quality and larger sample sizes, the quality of measurement in terms of relevance and usefulness for the study of political attitudes is a major advantage in this case. This allows researchers using the present data to extend theories of political behavior by employing measures that allow for a direct transposition into the discourse of political science research (Funk et al., 2013; Hatemi et al., 2011; Hatemi and McDermott, 2012). It is also important to note that these data are publicly available, allowing researchers to both replicate but also extend the analyses presented here, further contributing to the discussion on the roots of participatory behavior, considering additional important building elements of the VSB theory of participation.

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