

Supplementary Appendix A: Minimum number of studies for p-curve and p-uniform

2017-12-08

This is Online Appendix A for:

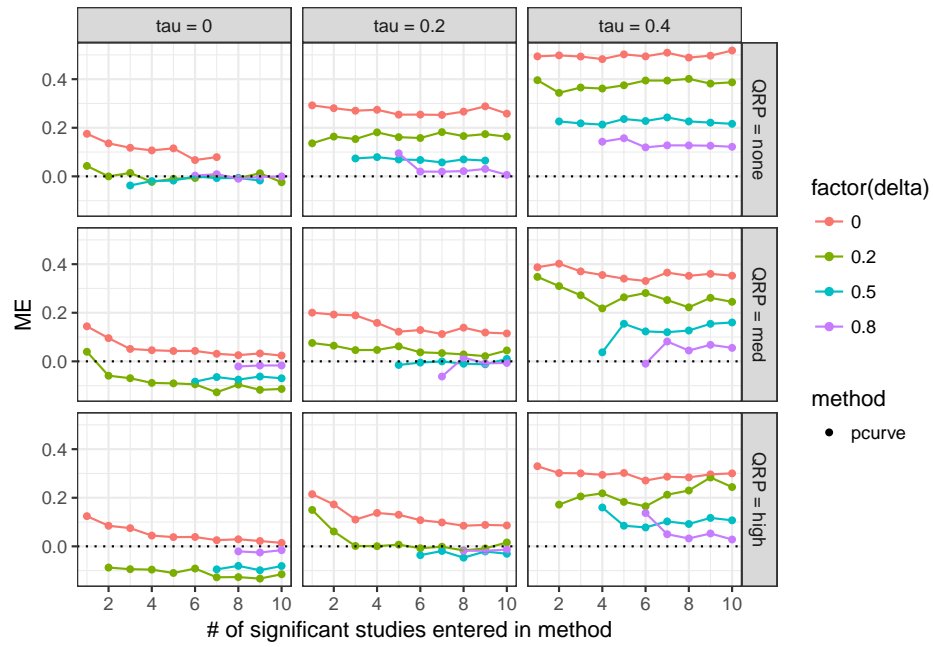
Carter, E. C., Schönbrodt, F. D., Hilgard, J., & Gervais, W. (2017). *Correcting for bias in psychology: A comparison of meta-analytic methods*. Retrieved from <https://osf.io/rf3ys/>.

Method

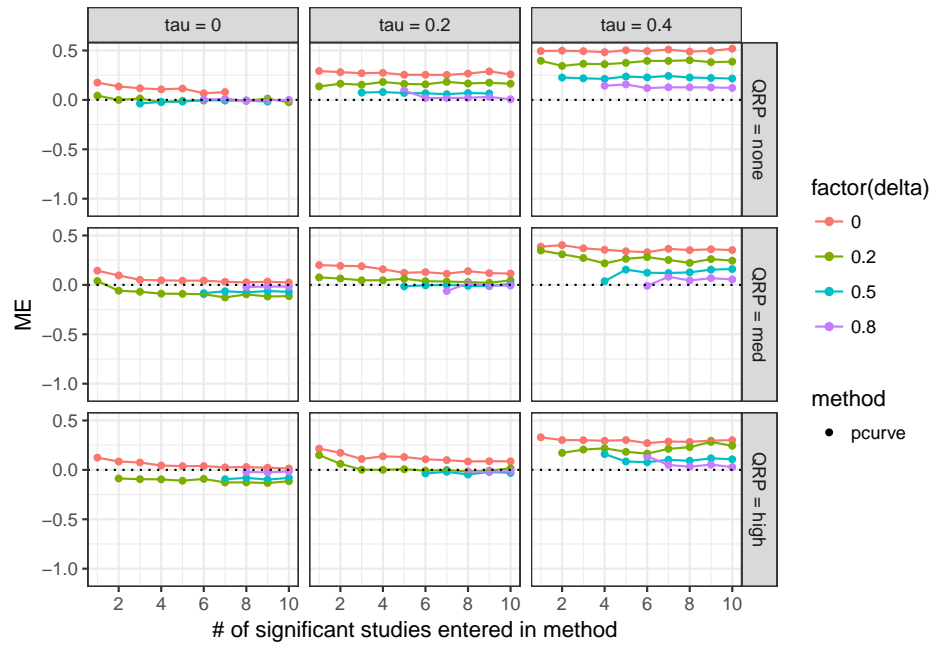
Effect size estimates and p-values from p-curve and p-uniform were grouped by the number of significant studies that were entered into the methods. Only groups with more than 10 simulated meta-analyses were used for the plots. Furthermore, we only looked at the conditions without publication bias (because conditions with 60% or 95% publication bias rarely had less than 10 significant studies in each meta-analysis).

Based on the results below, we decided to keep only p-curve and p-uniform estimates based on $k \geq 4$ significant and directionally consistent studies.

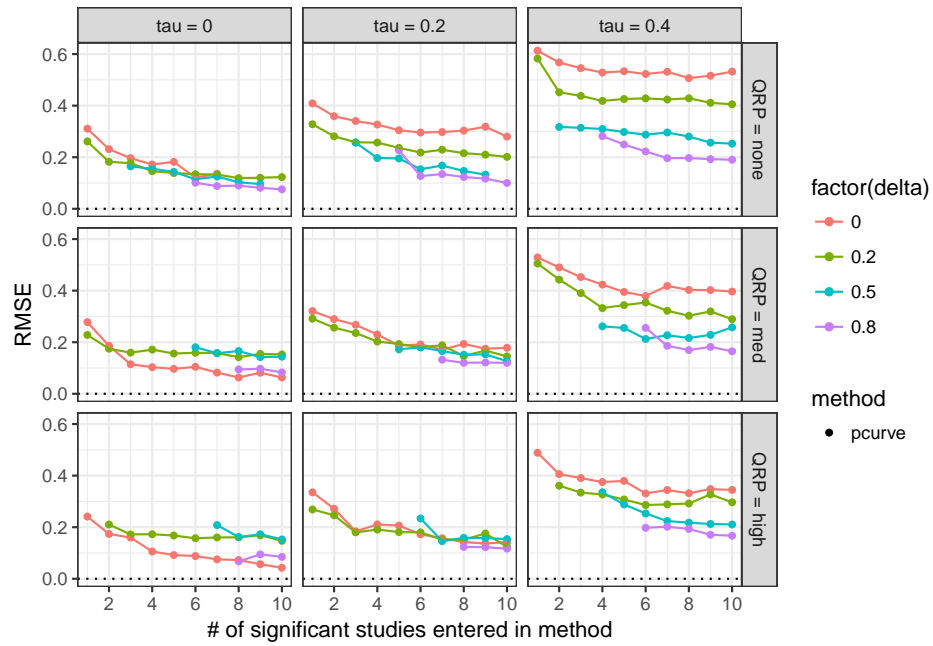
Mean error (ME) in Cohen's d , grouped by “# of significant studies”



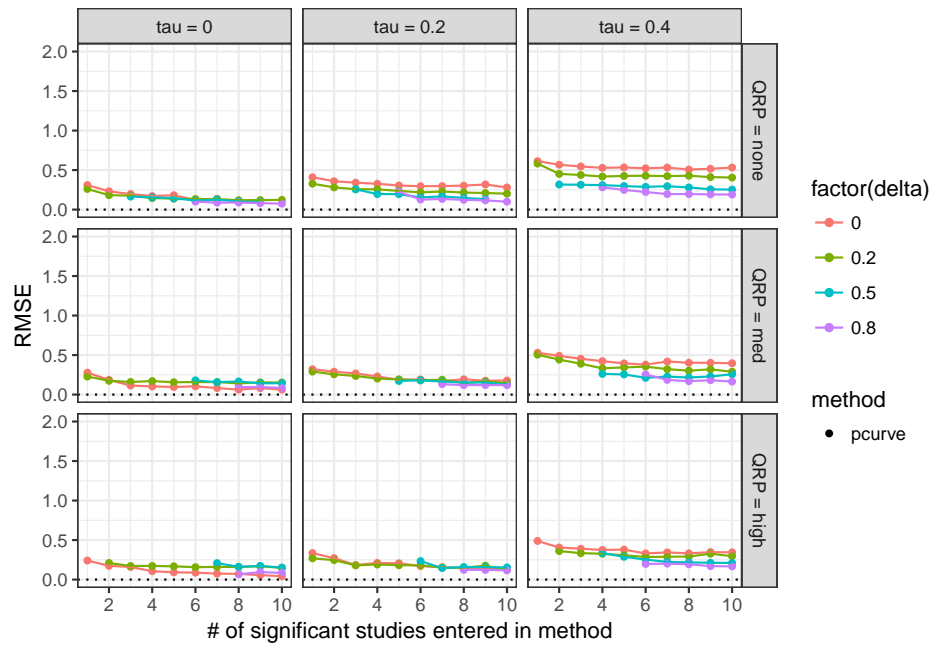
ME with zoomed y-scale:



Root mean square error (RMSE) in Cohen's d , grouped by
 “# of significant studies”



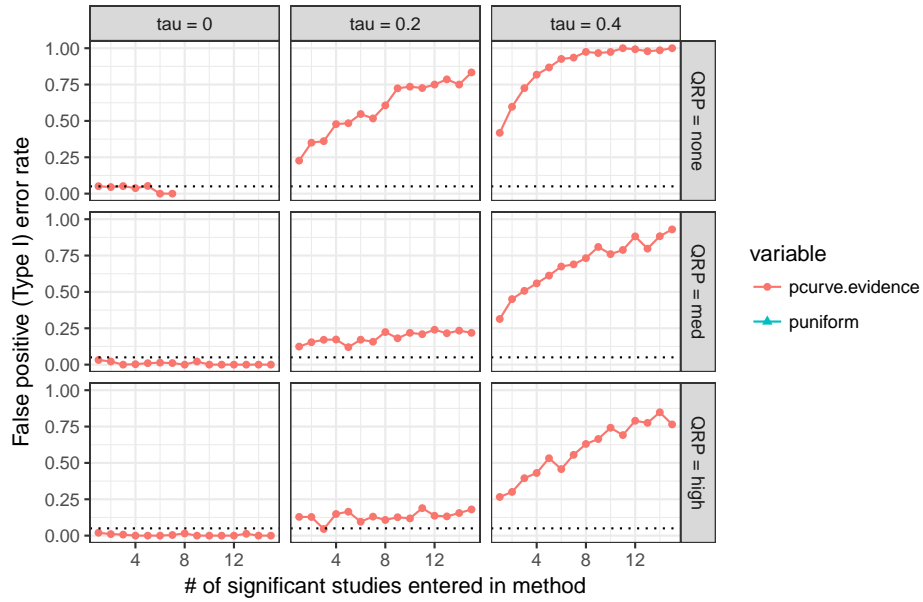
RMSE with zoomed y-scale



False positive rate (Type I errors)

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Type I error rate for 0% publication bias



True positive rate (statistical power) for $\delta = 0.2$

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Power for $\delta = 0.2$ and 0% publication bias

