

Readme file to perform the analyses related to our reply to Webb and colleagues

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The following codes are required to perform the analyses reported in our reply to Webb and colleagues:

DivNorm_Analysis_DirRepl_ReplyToReply.m

Main analysis script to run the model comparisons of the direct replication experiment.

DivNorm_Analysis_EyeTrack_ReplyToReply.m

Main analysis script to run the model comparisons of the eye-tracking experiment.

gs_logit.m, fs_logit.m, gs_DNM.m, fs_DNM.m, gs_DNM2.m, fs_DNM2.m

These files contain the multivariate Logit (“logit”) and the two variants of the divisive normalization (“DNM” / “DNM2”) models for performing grid search (“gs”) and simplex-based function minimization (“fs”) in Matlab.

JAGS_model_logit_uniform.txt, JAGS_model_DNM_uniform.txt, JAGS_model_DNM2_uniform.txt,

These files contain the hierarchical Bayesian versions of the logit and divisive normalization models for the analysis with JAGS (the term “uniform” indicates the prior distribution for the group-level parameters).

Further information can be found in the headers of the scripts. Note that in addition to these files, also the files containing the behavioral datasets are required, which are provided in the corresponding “XXX_Data” folders on OSF. Similarly, the fminsearchcon.m file is required, which can be found in the “Codes” folder.