NEW PILOT DATA:

Family: shifted\_lognormal

Links: mu = identity; sigma = identity; ndt = log

Formula: rt ~ 0 + experiment + colour:experiment:lnd

ndt ~ 1

Data: d (Number of observations: 4195)

Draws: 4 chains, each with iter = 2000; warmup = 1000; thin = 1;

total post-warmup draws = 4000

Population-Level Effects:

Estimate Est.Error l-95% CI u-95% CI Rhat Bulk\_ESS Tail\_ESS

ndt\_Intercept -1.00 0.01 -1.03 -0.98 1.00 1517 1708

experiment2c -1.37 0.04 -1.44 -1.30 1.00 1632 2317

experiment1a -1.31 0.04 -1.38 -1.24 1.00 1698 2243

experiment2b -1.44 0.04 -1.51 -1.36 1.00 1670 2100

experiment1b -1.35 0.04 -1.43 -1.28 1.00 1460 2281

experiment2a -1.39 0.04 -1.46 -1.32 1.00 1815 1970

experiment2c:colour1:lnd 0.01 0.02 -0.02 0.04 1.00 3523 2852

experiment1a:colour1:lnd 0.14 0.02 0.11 0.18 1.00 3381 2928

experiment2b:colour1:lnd 0.09 0.02 0.05 0.12 1.00 3018 2599

experiment1b:colour1:lnd 0.17 0.02 0.13 0.20 1.00 3141 3161

experiment2a:colour1:lnd 0.07 0.02 0.03 0.10 1.00 3187 2613

experiment2c:colour2:lnd 0.06 0.02 0.03 0.09 1.00 3594 3151

experiment1a:colour2:lnd 0.09 0.02 0.06 0.12 1.00 3221 3008

experiment2b:colour2:lnd 0.06 0.02 0.03 0.10 1.00 3243 2817

experiment1b:colour2:lnd 0.16 0.02 0.12 0.19 1.00 3328 3118

experiment2a:colour2:lnd 0.10 0.02 0.07 0.13 1.00 3335 2831

experiment2c:colour3:lnd 0.11 0.02 0.07 0.14 1.00 3402 3163

experiment1a:colour3:lnd 0.03 0.02 -0.00 0.06 1.00 3210 2853

experiment2b:colour3:lnd 0.09 0.02 0.06 0.12 1.00 2938 2917

experiment1b:colour3:lnd 0.29 0.02 0.25 0.32 1.00 2756 2829

experiment2a:colour3:lnd 0.04 0.02 0.00 0.07 1.00 3751 3329

Family Specific Parameters:

Estimate Est.Error l-95% CI u-95% CI Rhat Bulk\_ESS Tail\_ESS

sigma 0.48 0.01 0.46 0.50 1.00 1570 2169

Draws were sampled using sampling(NUTS). For each parameter, Bulk\_ESS

and Tail\_ESS are effective sample size measures, and Rhat is the potential

scale reduction factor on split chains (at convergence, Rhat = 1).

OLD PILOT DATA (NO PARTICIPANT 11):

Family: shifted\_lognormal

Links: mu = identity; sigma = identity; ndt = log

Formula: rt ~ 0 + experiment + colour:experiment:lnd

ndt ~ 1

Data: (filter(d, observer != "11")) (Number of observations: 3921)

Draws: 4 chains, each with iter = 2000; warmup = 1000; thin = 1;

total post-warmup draws = 4000

Population-Level Effects:

Estimate Est.Error l-95% CI u-95% CI Rhat Bulk\_ESS Tail\_ESS

ndt\_Intercept -1.40 0.02 -1.44 -1.36 1.00 1624 2234

experiment2c -1.33 0.03 -1.40 -1.27 1.00 1865 2507

experiment1b -1.21 0.03 -1.26 -1.15 1.00 1798 2595

experiment1a -1.27 0.03 -1.33 -1.20 1.00 2010 2619

experiment2b -1.30 0.03 -1.36 -1.24 1.00 1945 2317

experiment2a -1.37 0.03 -1.43 -1.30 1.00 1506 2195

experiment2c:colour1:lnd 0.04 0.01 0.01 0.07 1.00 3607 3191

experiment1b:colour1:lnd 0.12 0.01 0.09 0.15 1.00 3071 2892

experiment1a:colour1:lnd 0.07 0.01 0.04 0.10 1.00 3472 3061

experiment2b:colour1:lnd 0.07 0.01 0.04 0.10 1.00 3607 2966

experiment2a:colour1:lnd 0.05 0.01 0.02 0.08 1.00 3579 3539

experiment2c:colour2:lnd 0.04 0.01 0.01 0.07 1.00 4116 3360

experiment1b:colour2:lnd 0.11 0.01 0.09 0.14 1.00 3297 3143

experiment1a:colour2:lnd 0.03 0.02 -0.00 0.06 1.00 3563 3014

experiment2b:colour2:lnd 0.03 0.01 -0.00 0.05 1.00 3806 3272

experiment2a:colour2:lnd 0.08 0.01 0.06 0.11 1.00 3032 3060

experiment2c:colour3:lnd 0.07 0.01 0.04 0.10 1.00 3344 3365

experiment1b:colour3:lnd 0.23 0.01 0.20 0.26 1.00 3239 2939

experiment1a:colour3:lnd 0.04 0.02 0.01 0.07 1.00 3646 2885

experiment2b:colour3:lnd 0.05 0.01 0.02 0.08 1.00 3609 2903

experiment2a:colour3:lnd 0.07 0.01 0.04 0.10 1.00 2984 3319