Model fitting to human choice and accuracy data

"Accuracy increased across the block overall" :
Effect 01: "trial" F(6.87,116.86)=29.902, p=0.000

"but did so faster in blocks with familiar cues." :
Effect 01: "trial" F(6.87,116.86)=29.902, p=0.000
Effect 02: "novel" F(1.00,17.00)=149.680, p=0.000
Effect 03: "novel""trial" F(6.94,117.96)=2.899, p=0.008

"Participants began with a bias to respond `target` that abated across the block in roughly equal measure for the two conditions."
Effect 01: "trial" F(7.37,125.24)=46.063, p=0.000
Effect 02: "novel" F(1.00,17.00)=24.619, p=0.000
Effect 03: "novel""trial" F(6.78,115.25)=0.454, p=0.861
interaction between conditions

"specifically, mean values of alpha_R were" ... "for blocks with familiar and novel cues respectively, diverging reliably from the respective parameters" ... "that yielded maximal performance under this model in both cases"
alpha RT
mean fittings : 0.34 0.49
mean optimals : 0.21 0.18
std fittings : 0.20 0.24
std optimals : 0.08 0.08
familiar ttest : t(17) = +3.65, p = 0.002
novel ttest : t(17) = +5.68, p = 0.000

"similarly, mean values for tau were" ... "both showing a divergence from the performance-maximising parameters" ... "that was statistically reliable"
alpha_m
mean fittings : 2.44 2.22
mean optimals : 1.53 0.96
std fittings : 1.23 1.41
std optimals : 1.03 0.71
familiar ttest2 : t(17) = +2.30, p = 0.034
novel ttest2 : t(17) = +3.71, p = 0.002
alpha RC
mean fittings : 0.44 0.43
mean optimals : 0.33 0.26
std fittings : 0.22 0.27
std optimals : 0.07 0.08
familiar ttest : t(17) = +2.05, p = 0.056
novel ttest : t(17) = +2.68, p = 0.016

"however, values of tau were smaller ... and values of alpha_R were larger" ... "in the familiar relative to novel cues condition"
alpha_M ttest : t(17) = +0.61, p = 0.547
alpha_RT ttest : t(17) = -1.98, p = 0.065
alpha_RC ttest : t(17) = +0.19, p = 0.853

"interaction between fittings/optimal and familiar/novel"
alpha_RT
Effect 01: "cue" F(1.00,17.00)=2.157, p=0.160
Effect 02: "optimal" F(1.00,17.00)=49.771, p=0.000
Effect 03: "optimal""cue" F(1.00,17.00)=6.149, p=0.024
alpha RC
Effect 01: "cue" F(1.00,17.00)=0.840, p=0.372
Effect 02: "optimal" F(1.00,17.00)=13.182, p=0.002
Effect 03: "optimal""cue" F(1.00,17.00)=0.399, p=0.536

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RANKSUM TEST

adaptation between conditions
fittings on taco4
p(alpha_M) = 0.762
p(alpha_RT) = 0.063
p(alpha_RC) = 0.848
p(tau) = 0.116

optimals on taco4
p(alpha_M) = 0.060
p(alpha_RT) = 0.410
p(alpha_RC) = 0.008
p(tau) = 0.040

deviance from optimality
familiar on taco4
p(alpha_M) = 0.031
p(alpha_RT) = 0.026
p(alpha_RC) = 0.220
p(tau) = 0.000
novel on taco4
p(alpha_M) = 0.006
p(alpha_RT) = 0.000
p(alpha_RC) = 0.059
p(tau) = 0.000

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CORRELATION PARAMETER / PERFORMANCE

ALPHA M
r(familiar) = -0.3326
r(novel) = -0.5327
p(familiar) = 0.1775
p(novel) = 0.0229

ALPHA RT
r(familiar) = -0.2262
r(novel) = -0.4548
p(familiar) = 0.3668
p(novel) = 0.0579

ALPHA RC
r(familiar) = -0.5348
r(novel) = -0.0808
p(familiar) = 0.0222
p(novel) = 0.7500

TAU
r(familiar) = -0.6949
r(novel) = -0.7033
p(familiar) = 0.0014
p(novel) = 0.0011

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BIC SCORES

Fitting (familiar / novel)

BIC(human)	= 32.0413 ± 0.1759	= 32.7083 ± 0.0744
BIC(god)	= 38.6333 ± 0.3613	= 40.0568 ± 0.1324
BIC(hbm)	= 36.8194 ± 0.5052	= 38.6293 ± 0.2327
BIC(ta3)	= 37.8985 ± 0.2117	= 39.1219 ± 0.1770
BIC(ta3opt)	= 39.7748 ± 0.3826	= 41.7100 ± 0.2193
BIC(co3)	= 38.0386 ± 0.2196	= 38.9329 ± 0.1918
BIC(co3opt)	= 40.6822 ± 0.3417	= 41.7815 ± 0.2204
BIC(taco4)	= 39.0755 ± 0.1762	= 40.0401 ± 0.1637
BIC(taco4opt)	= 41.3003 ± 0.3899	= 43.1427 ± 0.2243

Test (familiar / novel)

BIC(human)	= 31.9841 ± 0.2089	= 32.7730 ± 0.0544
BIC(god)	= 38.2427 ± 0.4556	= 40.0047 ± 0.2188
BIC(hbm)	= 36.5909 ± 0.5426	= 38.3735 ± 0.2471
BIC(ta3)	= 39.5754 ± 0.3627	= 41.0839 ± 0.4033
BIC(ta3opt)	= 40.4352 ± 0.4451	= 41.6207 ± 0.3443
BIC(co3)	= 40.0569 ± 0.3723	= 41.0461 ± 0.3670
BIC(co3opt)	= 41.0717 ± 0.4175	= 41.7441 ± 0.3819
BIC(taco4)	= 41.2352 ± 0.3060	= 42.5176 ± 0.3498
BIC(taco4opt)	= 41.6794 ± 0.4745	= 43.1694 ± 0.3673