Supplemental Material

Table S1

Number of squares and switches in each trial

Switch intensity	Squares (switches) in trial						
1 (squares/2.4)	11 (4)	12 (5)[a]	13 (5)	14 (5)	15 (6)	16 (6)	17 (7)
2 (squares/2.2)	11 (5)	12 (5)	13 (5)	14 (6)	15 (6)	16 (7)	17 (7)
3 (squares/1.8)	11 (6)	12 (6)	13 (7)	14 (7)	15 (8)	16 (8)	17 (9)
4 (squares/1.5)	11 (7)	12 (8)	13 (8)	14 (9)	15 (10)	16 (10)	17 (11)
5 (squares/1.3)	11 (8)	12 (9)	13 (10)	14 (10)	15 (11)	16 (12)	17 (13)

Note. The number of switches on each trial are shown in parentheses. The number of switches on each trial was determined by dividing the number of squares by 2.4, 2.2, 1.8, 1.5, or 1.3, and rounding down the result to the nearest integer (e.g., 11 / 1.3 = 8).

[a] The first trial of the task had 12 squares and switched 5 times from a small to big or big to small square within the same trial. To manipulate task demand, if participants responded correctly, the next trial had 13 squares and 5 switches (move horizontally to the cell on the right in the table). But if participants responded incorrectly, the next trial had 11 squares and 4 switches (move horizontally to the cell on the left in the table). If participants responded correctly on a trial with 17 squares (rightmost column), the next trial had 11 squares and the switch intensity increased (move down one row in the table). If participants responded incorrectly on a trial with 11 squares (rightmost column), the next trial had 17 squares and the switch intensity decreased (move up one row in the table).

Table S2
Bayesian Multilevel Model Parameter Estimates Using Priors Centered Around 0

	Study 1 (20 min)	Study 2 (15 min)	Study 3 (5 min)	Study 4 (10 min)	Overall
Demand ~ condition	1.83 [1.61, 2.04] (BF > 500) d = 1.34 [1.13, 1.56]	1.49 [1.19, 1.78] (BF > 500) d = 1.00 [0.73, 1.27]	2.02 [1.75, 2.30] (BF > 500) d = 1.37 [1.10, 1.64]	1.73 [1.37, 2.07] (BF > 500) d = 1.07 [0.77, 1.40]	2.78 [2.64, 2.91] (BF > 500) d = 2.12 [1.97, 2.27]
Effort ~ condition	1.77 [1.55, 1.98] (BF > 500) d = 1.30 [1.09, 1.52]	1.36 [1.08, 1.65] (BF > 500) d = 0.92 [0.67, 1.18]	2.17 [1.89, 2.44] (BF > 500) d = 1.52 [1.23, 1.80]	1.67 [1.32, 2.01] (BF > 500) d = 1.01 [0.73, 1.32]	2.70 [2.56, 2.83] (BF > 500) d = 2.04 [1.89, 2.19]
Frustration ~ condition	2.01 [1.78, 2.24] (BF > 500) d = 1.48 [1.22, 1.75]	1.10 [0.80, 1.41] (BF > 500) d = 0.72 [0.49, 0.97]	1.32 [1.04, 1.60] (BF > 500) d = 0.84 [0.62, 1.08]	1.22 [0.88, 1.56] (BF > 500) d = 0.75 [0.49, 1.05]	2.05 [1.90, 2.19] (BF > 500) d = 1.46 [1.32, 1.60]
Boredom ~ condition	1.01 [0.76, 1.26] (BF > 500) d = 0.63 [0.46, 0.81]	0.50 [0.20, 0.81] (BF = 72.41) d = 0.31 [0.11, 0.50]	0.43 [0.13, 0.71] (BF = 29.38) d = 0.25 [0.08, 0.42]	0.50 [0.15, 0.84] (BF = 33.16) d = 0.27 [0.08, 0.47]	0.86 [0.69, 1.03] (BF > 500) d = 0.52 [0.41, 0.62]
Fatigue ~ condition	1.93 [1.71, 2.15] (BF > 500) d = 1.52 [1.25, 1.80]	1.20 [0.91, 1.49] (BF > 500) d = 0.80 [0.57, 1.05]	1.73 [1.45, 2.01] (BF > 500) d = 1.09 [0.87, 1.33]	1.69 [1.34, 2.03] (BF > 500) d = 1.02 [0.74, 1.32]	2.44 [2.30, 2.58] (BF > 500) d = 1.82 [1.66, 1.98]
Boundary ~ condition + congruency					
Condition	−0.003 [−0.005, −0.001] (BF = 32.35) d = −0.19 [−0.31, −0.07]	0.00 [−0.003, 0.002] (BF = 0.32) d = −0.03 [−0.19, 0.13]	−0.005 [−0.007, −0.002] (BF > 500) d = −0.29 [−0.43, −0.14]	−0.002 [−0.007, 0.004] (BF = 0.81) d = −0.04 [−0.17, 0.09]	−0.003 [−0.005, −0.001] (BF = 180.73) d = −0.13 [−0.20, −0.06]
Congruency	−0.02 [−0.02, −0.02] (BF > 500) d = −1.12 [−1.25, −0.98]	−0.02 [−0.02, −0.01] (BF > 500) d = −0.94 [−1.13, −0.76]	−0.01 [−0.02, −0.01] (BF > 500) d = −0.88 [−1.04, −0.73]	−0.01 [−0.02, −0.004] (BF = 0.30) d = −0.27 [−0.44, −0.09]	−0.02 [−0.02, −0.01] (BF > 500) d = −0.68 [−0.75, −0.60]
Drift rate ~ condition + congruency					
Condition	−0.006 [−0.01, 0.00] (BF = 1.32) d = −0.11 [−0.23, 0.007]	−0.007 [−0.01, 0.00] (BF = 1.73) d = −0.15 [−0.31, 0.01]	0.004 [−0.003, 0.01] (BF = 0.54) d = 0.07 [−0.06, 0.21]	0.001 [−0.009, 0.01] (BF = 0.44) d = 0.02 [−0.13, 0.18]	−0.002 [−0.006, 0.002] (BF = 0.32) d = −0.04 [−0.11, 0.03]
Congruency	−0.10 [−0.11, −0.10] (BF > 500) d = −2.12 [−2.28, −1.95]	−0.10 [−0.11, −0.10] (BF > 500) d = −2.18 [−2.40, −1.95]	−0.09 [−0.10, −0.09] (BF > 500) d = −1.78 [−1.97, −1.60]	−0.10 [−0.11, −0.09] (BF > 500) d = −1.56 [−1.78, −1.35]	−0.10 [−0.10, −0.10] (BF > 500) d = −1.90 [−2.00, −1.81]
Boundary ~ fatigue	−0.001 [−0.002, 0.00] (BF = 5.40) d = −0.08 [−0.14, −0.02]	0.00 [0.00, 0.002] (BF = 0.20) d = 0.02 [−0.06, 0.10]	−0.002 [−0.002, −0.001] (BF > 500) d = −0.13 [−0.19, −0.07]	0.00 [−0.003, 0.002] (BF = 0.40) d = −0.02 [−0.08, 0.04]	−0.001 [−0.002, 0.00] (BF = 7.70) d = −0.05 [−0.08, −0.02]
Boundary ~ frustration	−0.001 [−0.002, 0.00] (BF = 2.92) d = −0.08 [−0.13, −0.02]	0.00 [0.00, 0.002] (BF = 0.24) d = 0.03 [−0.05, 0.12]	−0.002 [−0.002, 0.00] (BF = 23.13) d = −0.11 [−0.19, −0.05]	0.00 [−0.003, 0.003] (BF = 0.41) d = −0.01 [−0.09, 0.06]	−0.001 [−0.002, 0.00] (BF = 0.61) d = −0.04 [−0.08, −0.005]
Boundary ~ boredom	−0.00 [−0.002, 0.00] (BF = 0.47) d = −0.05 [−0.12, 0.02]	0.00 [−0.001, 0.002] (BF = 0.22) d = 0.02 [−0.08, 0.12]	−0.001 [−0.002, 0.00] (BF = 0.82) d = −0.08 [−0.16, 0.008]	0.002 [−0.002, 0.005] (BF = 0.79) d = 0.04 [−0.04, 0.13]	0.00 [−0.001, 0.001] (BF = 0.23) d = −0.003 [−0.05, 0.04]
Drift rate ~ fatigue	0.00 [−0.003, 0.001] (BF = 0.16) d = −0.02 [−0.08, 0.04]	−0.002 [−0.005, 0.001] (BF = 0.37) d = −0.05 [−0.13, 0.03]	0.00 [−0.002, 0.003] (BF = 0.18) d = 0.02 [−0.04, 0.08]	0.00 [−0.003, 0.004] (BF = 0.19) d = 0.005 [−0.06, 0.07]	0.00 [−0.002, 0.001] (BF = 0.06) d = −0.005 [−0.04, 0.03]
Drift rate ~ frustration	−0.002 [−0.004, 0.00] (BF = 1.11) d = −0.06 [−0.12, −0.003]	−0.002 [−0.005, 0.002] (BF = 0.31) d = −0.04 [−0.13, 0.04]	0.00 [−0.003, 0.003] (BF = 0.18) d = 0.007 [−0.06, 0.07]	0.00 [−0.005, 0.004] (BF = 0.24) d = −0.01 [−0.09, 0.07]	−0.001 [−0.003, 0.00] (BF = 0.22) d = −0.03 [−0.06, 0.008]
Drift rate ~ boredom	−0.003 [−0.006, −0.00] (BF = 3.58) d = −0.09 [−0.16, −0.02]	−0.002 [−0.006, 0.001] (BF = 0.43) d = −0.06 [−0.16, 0.04]	0.00 [−0.004, 0.003] (BF = 0.21) d = −0.01 [−0.09, 0.07]	−0.003 [−0.008, 0.001] (BF = 0.76) d = −0.06 [−0.16, 0.03]	−0.002 [−0.004, −0.001] (BF = 3.80) d = −0.06 [−0.10, −0.02]

Note. Numbers within brackets are the upper and lower limits of 95% highest posterior density intervals. Bayes factor > 1 indicates evidence for the experimental hypothesis, whereas values < 1 indicates evidence for the null hypothesis. Bayes factors were computed using bridge sampling. BF = Bayes factor.

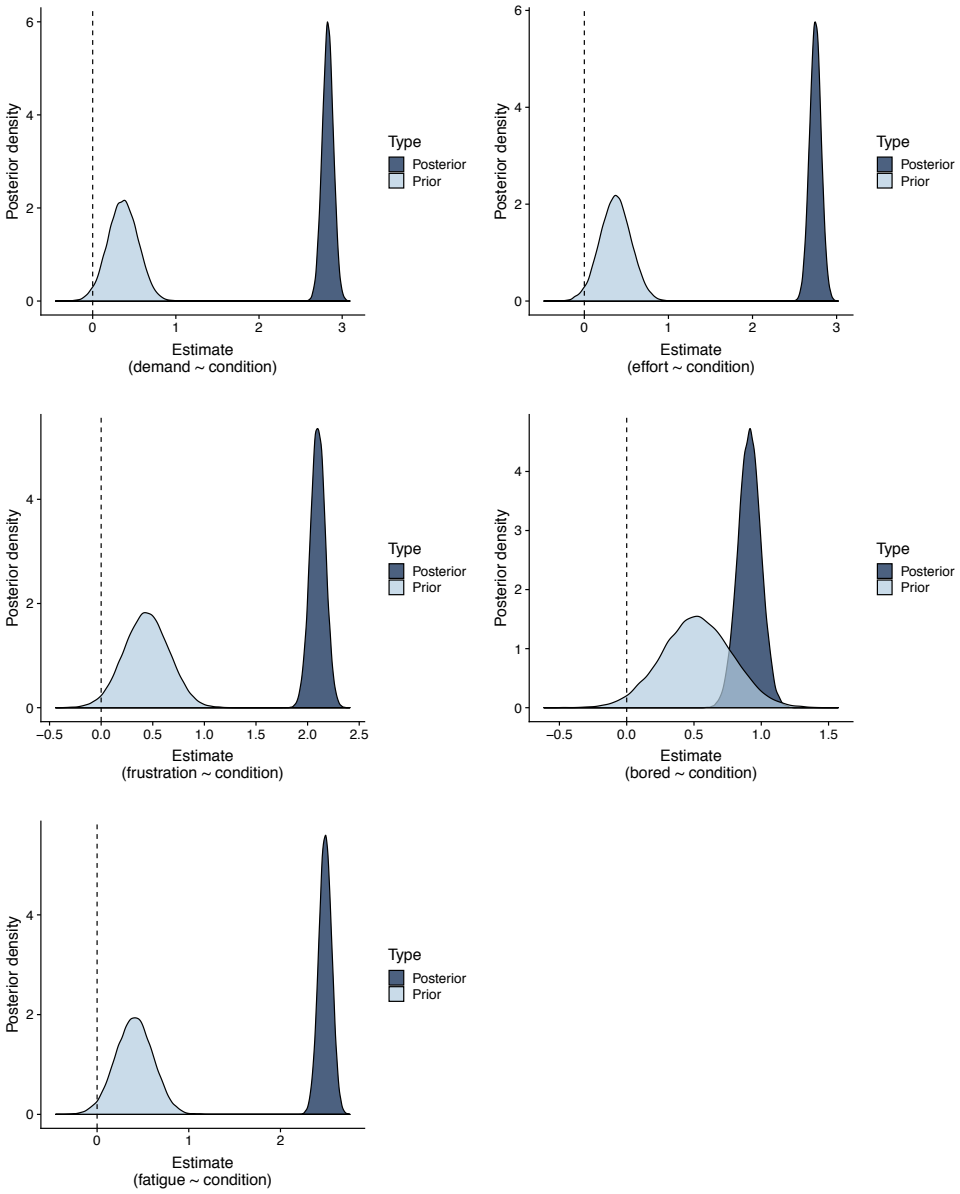

Figure S1. Prior and posterior distributions for the effect of condition (high vs. low demand) on the five phenomenology measures (demand, effort, frustration, bored, fatigue). Informed priors reflecting Cohen's d = 0.28 (SD = 0.14) were used in the preregistered analyses reported in the main text. These priors were created by rescaling the expected effect size to the raw scale of each outcome measure. For analyses that used null priors, we used normal priors with the same SDs but centered around 0.

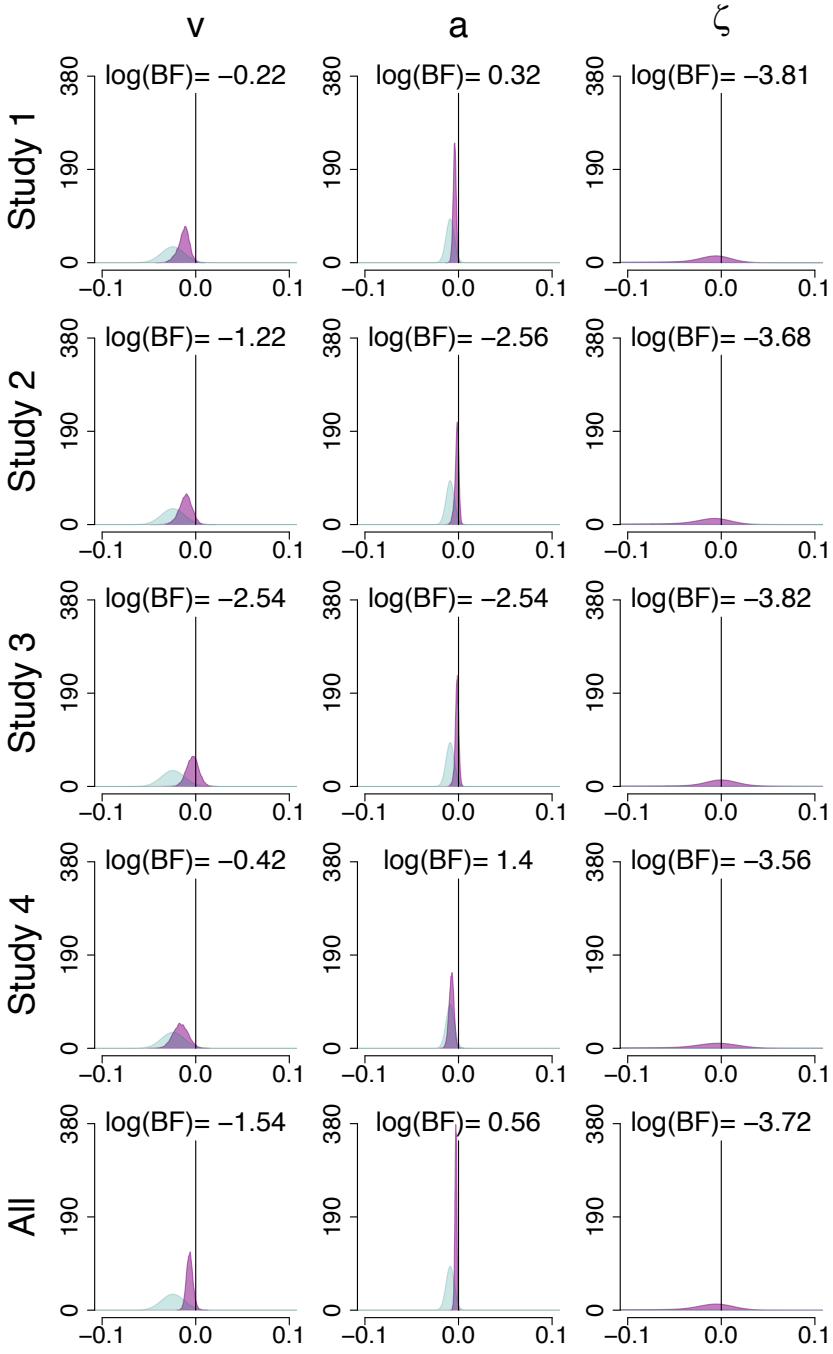

Figure S2. Diffusion model for conflict tasks results. Prior (light) and posterior (dark) distributions for the effect of condition (high vs. low demand) on drift rate (v), boundary (a), and automatic process (ζ) parameters. Informed priors reflecting Cohen's d = −0.28 (SD = 0.14) were used and were created by rescaling the expected effect size to the raw scale of each outcome measure. For the model in row five ("All"), data from all studies were combined, ignoring the fact that there were four different studies. Log Bayes factors (BF) are reported: log(BF) > 0 indicates evidence for the experimental hypothesis and log(BF) < 0 indicates evidence for the null.

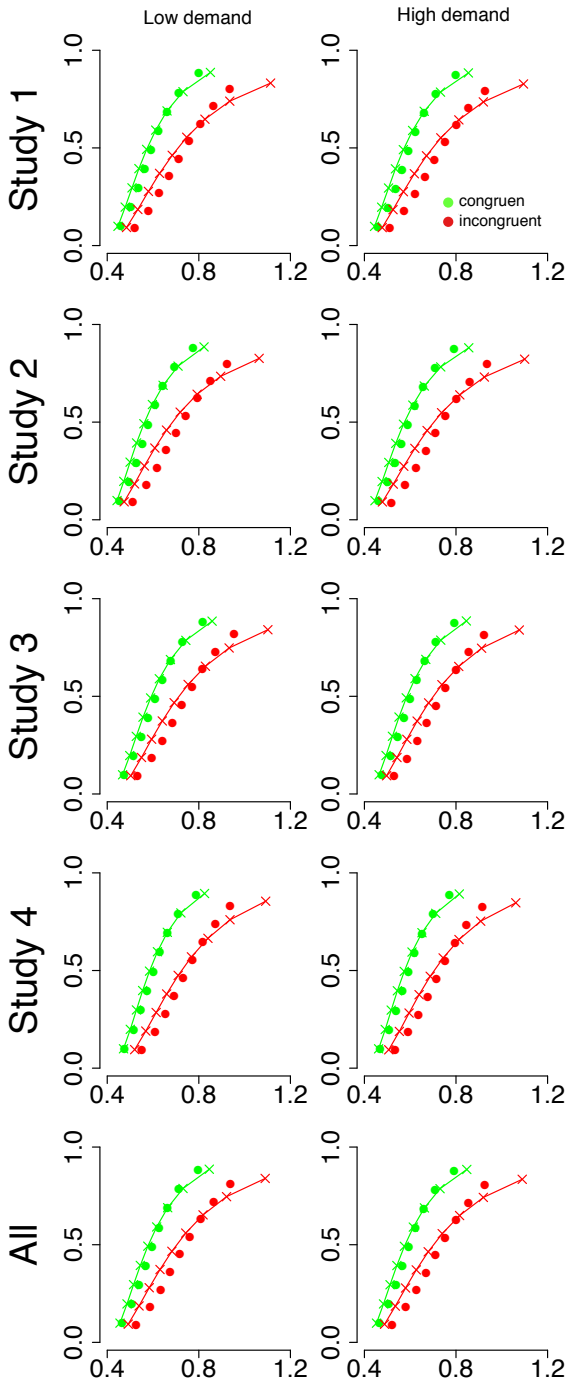

Figure S3. Model fits for diffusion model for conflict tasks. The dots are the 0.1 to 0.9 quantiles (in 0.1 increments on the x-axis) for correct reaction times. The y-axis reflects the defective cumulative density (the cumulative density [0.1 to 0.9] multiplied by the accuracy for a given condition (low or high demand) and Stroop congruency (congruent or incongruent).

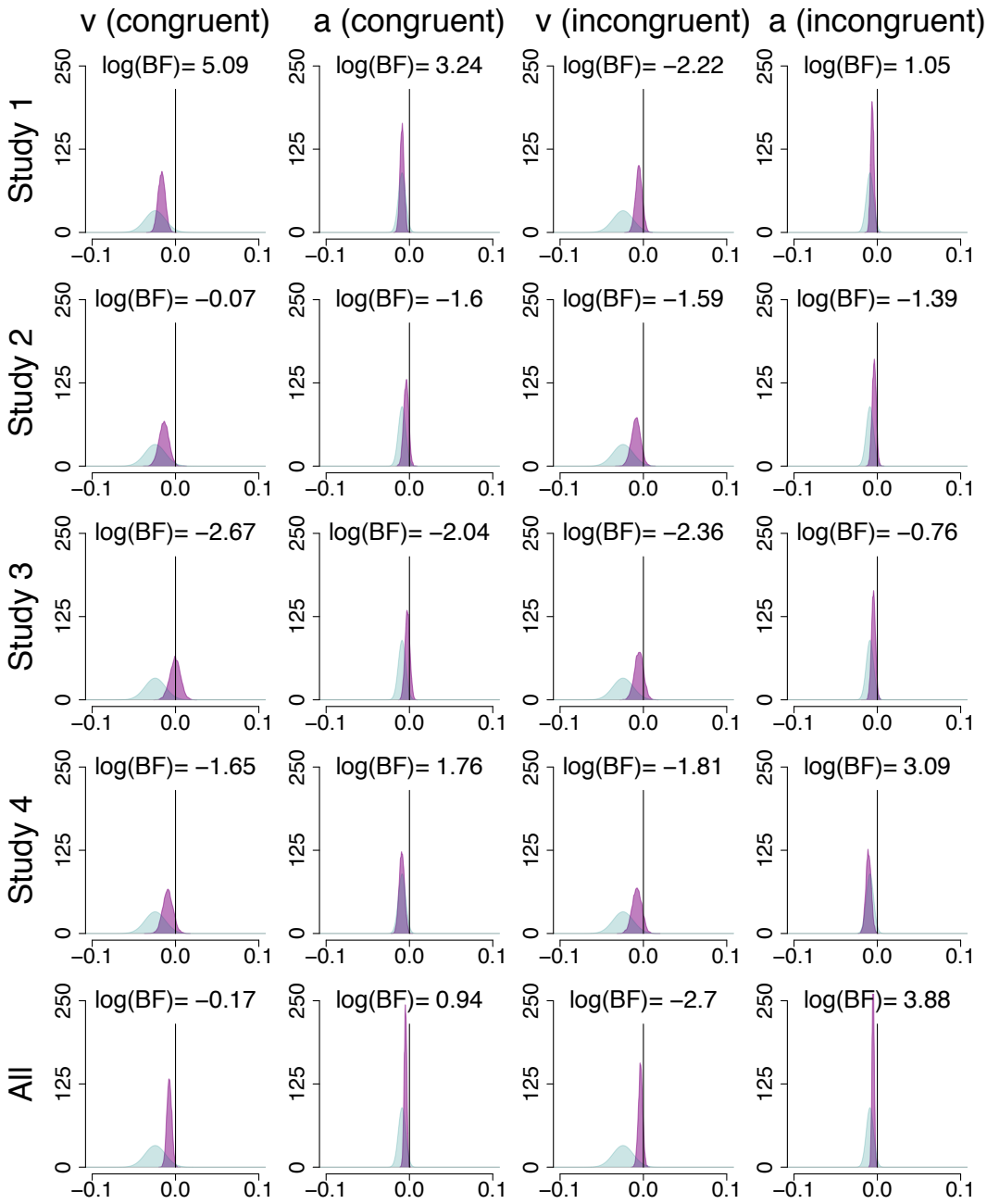

Figure S4. Analytic diffusion model results. Prior (light) and posterior (dark) distributions for the effect of condition (high vs. low demand) on drift rate (v) and boundary (a) parameters (separately for congruent and incongruent Stroop trials). Informed priors reflecting Cohen's d = −0.28 (SD = 0.14) were used and were created by rescaling the expected effect size to the raw scale of each outcome measure. For the model in row five ("All"), data from all studies were combined, ignoring the fact that there were four different studies. Log Bayes factors (BF) are reported: log(BF) > 0 indicates evidence for the experimental hypothesis and log(BF) < 0 indicates evidence for the null.

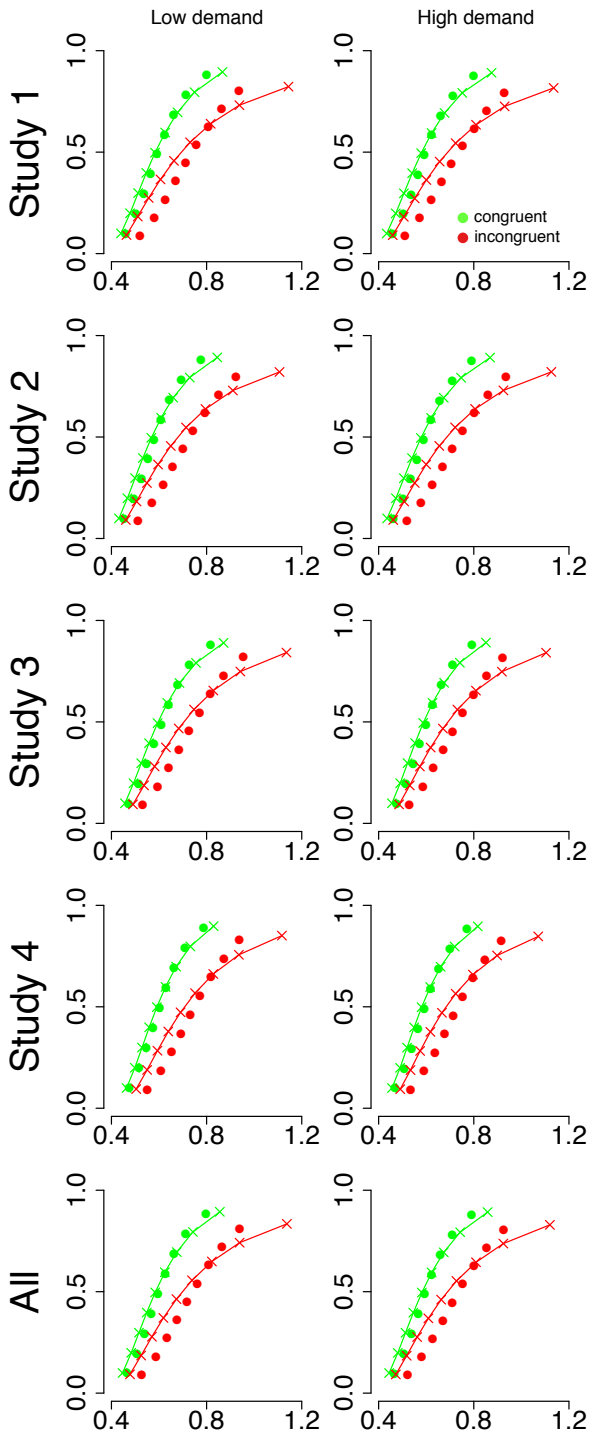

Figure S5. Model fits for analytic diffusion model. The dots are the 0.1 to 0.9 quantiles (in 0.1 increments on the x-axis) for correct reaction times. The y-axis reflects the defective cumulative density (the cumulative density [0.1 to 0.9] multiplied by the accuracy for a given condition (low or high demand) and Stroop congruency (congruent or incongruent).

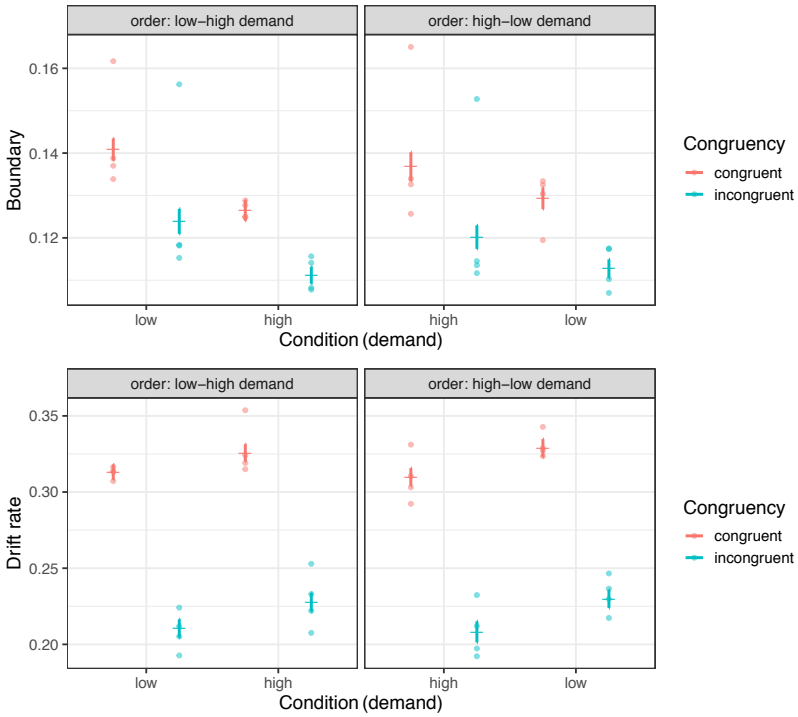

Figure S6. Boundary and drift rate parameter. Each dot reflects the mean from one study. Strong order (practice/learning) effects such that boundary was reduced in the second session whereas drift rate increased, reflecting improved task performance. Error bars are 95% CI.

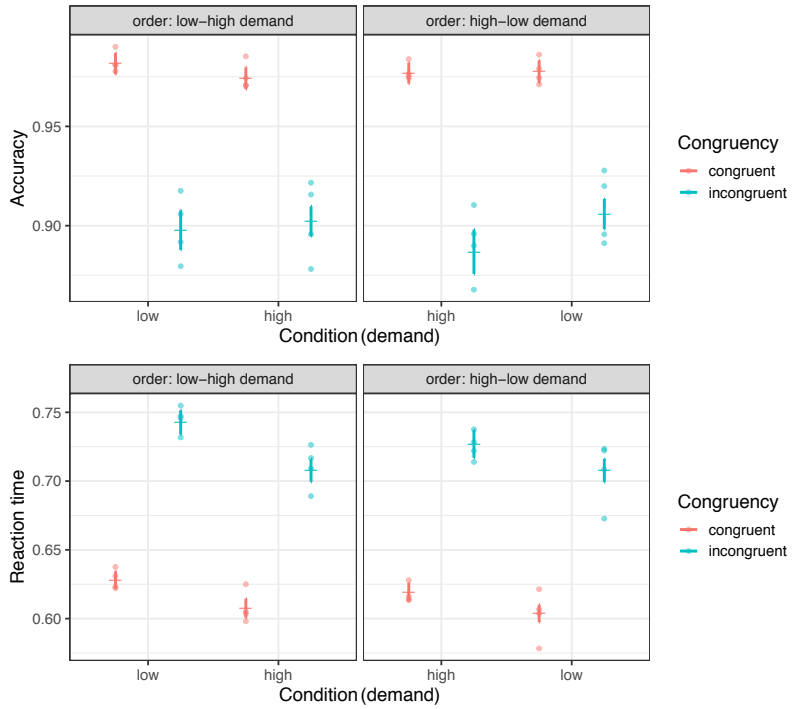

Figure S7. Stroop accuracy and reaction time. Each dot reflects the mean from one study. Strong order (practice/learning) effects such that reaction times were faster in the second session for both congruent and incongruent Stroop trials. Error bars are 95% CI.

Table S3
Effects on Boundary and Drift Rate (Session-Order Effects): Bayesian Multilevel Model Parameter Estimates Using Informed Priors

	Study 1 (20 min)	Study 2 (15 min)	Study 3 (5 min)	Study 4 (10 min)	Overall
Boundary ~ condition * order + congruency					
condition	−0.004 [−0.006, −0.002] (BF = 19.12) d = −0.22 [−0.34, −0.10]	−0.001 [−0.004, 0.001] (BF = 0.07) d = −0.08 [−0.24, 0.07]	−0.005 [−0.008, −0.003] (BF > 500) d = −0.33 [−0.47, −0.18]	−0.005 [−0.01, 0.00] (BF = 0.37) d = −0.12 [−0.27, 0.01]	−0.003 [−0.005, −0.002] (BF = 117.67) d = −0.14 [−0.21, −0.07]
order	−0.006 [−0.008, −0.004] (BF > 500) d = −0.36 [−0.49, −0.24]	−0.01 [−0.01, −0.009] (BF > 500) d = −0.67 [−0.85, −0.50]	0.001 [−0.001, 0.004] (BF = 0.002) d = 0.08 [−0.07, 0.22]	−0.04 [−0.04, −0.03] (BF > 500) d = −0.92 [−1.11, −0.73]	−0.01 [−0.01, −0.009] (BF > 500) d = −0.45 [−0.52, −0.37]
congruency	−0.02 [−0.02, −0.02] (BF > 500) d = −1.14 [−1.27, −1.00]	−0.02 [−0.02, −0.01] (BF > 500) d = −1.01 [−1.18, −0.83]	−0.01 [−0.02, −0.01] (BF > 500) d = −0.88 [−1.04, −0.73]	−0.01 [−0.02, −0.005] (BF = 0.85) d = −0.30 [−0.49, −0.13]	−0.02 [−0.02, −0.01] (BF > 500) d = −0.70 [−0.77, −0.62]
condition * order	0.00 [−0.01, 0.008] (BF = 0.005) d = −0.04 [−0.57, 0.50]	0.008 [−0.006, 0.02] (BF = 0.01) d = 0.44 [−0.31, 1.21]	0.005 [−0.006, 0.02] (BF = 0.01) d = 0.28 [−0.40, 0.96]	−0.004 [−0.03, 0.02] (BF = 0.01) d = −0.12 [−0.70, 0.43]	0.002 [−0.005, 0.008] (BF = 0.01) d = 0.07 [−0.20, 0.33]
Drift rate ~ condition * order + congruency					
condition	−0.007 [−0.01, −0.001] (BF = 0.54) d = −0.15 [−0.26, −0.03]	−0.01 [−0.02, −0.002] (BF = 0.92) d = −0.20 [−0.36, −0.04]	0.001 [−0.006, 0.008] (BF = 0.04) d = 0.02 [−0.12, 0.16]	−0.004 [−0.01, 0.006] (BF = 0.07) d = −0.06 [−0.23, 0.10]	−0.003 [−0.007, 0.00] (BF = 0.10) d = −0.06 [−0.14, 0.01]
order	0.01 [0.008, 0.02] (BF = 159.80) d = 0.30 [0.17, 0.42]	0.01 [0.003, 0.02] (BF = 0.09) d = 0.22 [0.05, 0.38]	0.005 [−0.003, 0.01] (BF = 0.01) d = 0.09 [−0.06, 0.23]	0.05 [0.04, 0.06] (BF > 500) d = 0.91 [0.72, 1.10]	0.02 [0.01, 0.02] (BF > 500) d = 0.34 [0.27, 0.42]
congruency	−0.10 [−0.11, −0.10] (BF > 500) d = −2.14 [−2.31, −1.98]	−0.10 [−0.11, −0.10] (BF > 500) d = −2.20 [−2.43, −1.96]	−0.09 [−0.10, −0.09] (BF > 500) d = −1.78 [−1.96, −1.60]	−0.10 [−0.11, −0.09] (BF > 500) d = −1.77 [−1.98, −1.54]	−0.10 [−0.10, −0.10] (BF > 500) d = −1.94 [−2.04, −1.84]
condition * order	0.01 [−0.01, 0.04] (BF = 0.02) d = 0.26 [−0.27, 0.79]	−0.02 [−0.06, 0.02] (BF = 0.03) d = −0.43 [−1.22, 0.38]	−0.01 [−0.05, 0.02] (BF = 0.02) d = −0.27 [−0.93, 0.38]	0.02 [−0.02, 0.06] (BF = 0.03) d = 0.28 [−0.41, 1.01]	0.00 [−0.02, 0.02] (BF = 0.01) d = 0.00 [−0.32, 0.32]

Note. Numbers within brackets are the upper and lower limits of 95% highest posterior density intervals. Informed priors reflecting Cohen's *d* = 0.28 (SD = 0.14) were created by rescaling the expected effect size to the raw scale of each outcome measure. Bayes factors were computed using bridge sampling. Bayes factor > 1 indicates evidence for the experimental hypothesis, whereas values < 1 indicates evidence for the null hypothesis. BF = Bayes factor.

Table S4
Effects of Phenomenology on Boundary (Session-Order Effects): Bayesian Multilevel Model Parameter Estimates Using Informed Priors

	Study 1 (20 min)	Study 2 (15 min)	Study 3 (5 min)	Study 4 (10 min)	Overall
Boundary ~ fatigue * order					
fatigue	−0.001 [−0.002, 0.00] (BF = 0.92) d = −0.08 [−0.14, −0.03]	0.00 [0.00, 0.001] (BF = 0.02) d = 0.01 [−0.07, 0.09]	−0.002 [−0.003, −0.001] (BF > 500) d = −0.14 [−0.20, −0.08]	−0.001 [−0.003, 0.00] (BF = 0.07) d = −0.04 [−0.10, 0.03]	−0.001 [−0.002, 0.00] (BF = 1.72) d = −0.05 [−0.08, −0.02]
order	−0.006 [−0.008, −0.003] (BF > 500) d = −0.43 [−0.61, −0.24]	−0.01 [−0.01, −0.009] (BF > 500) d = −0.91 [−1.17, −0.65]	0.001 [−0.002, 0.004] (BF = 0) d = 0.09 [−0.12, 0.28]	−0.04 [−0.04, −0.03] (BF > 500) d = −1.19 [−1.49, −0.90]	−0.01 [−0.01, −0.008] (BF > 500) d = −0.54 [−0.65, −0.43]
fatigue * order	0.00 [−0.004, 0.003] (BF = 0) d = −0.02 [−0.26, 0.21]	0.001 [−0.003, 0.006] (BF = 0) d = 0.09 [−0.27, 0.46]	0.002 [−0.001, 0.005] (BF = 0) d = 0.14 [−0.10, 0.38]	0.00 [−0.005, 0.006] (BF = 0) d = 0.004 [−0.18, 0.19]	0.00 [−0.001, 0.003] (BF = 0) d = 0.04 [−0.07, 0.13]
Boundary ~ frustration * order					
frustration	−0.001 [−0.002, 0.00] (BF = 0.74) d = −0.08 [−0.14, −0.03]	0.00 [0.00, 0.001] (BF = 0.02) d = 0.02 [−0.07, 0.10]	−0.002 [−0.003, 0.00] (BF = 13.10) d = −0.12 [−0.20, −0.05]	−0.001 [−0.004, 0.001] (BF = 0.09) d = −0.04 [−0.12, 0.04]	0.00 [−0.002, 0.00] (BF = 0.52) d = −0.05 [−0.08, −0.01]
order	−0.006 [−0.008, −0.004] (BF > 500) d = −0.44 [−0.62, −0.26]	−0.01 [−0.01, −0.008] (BF > 500) d = −0.91 [−1.19, −0.66]	0.00 [−0.002, 0.003] (BF = 0) d = 0.06 [−0.14, 0.27]	−0.04 [−0.04, −0.03] (BF > 500) d = −1.20 [−1.50, −0.91]	−0.01 [−0.01, −0.009] (BF > 500) d = −0.54 [−0.65, −0.43]
frustration * order	−0.002 [−0.005, 0.00] (BF = 0) d = −0.16 [−0.39, 0.06]	0.00 [−0.005, 0.005] (BF = 0) d = 0.02 [−0.36, 0.40]	0.003 [0.00, 0.007] (BF = 0.01) d = 0.25 [−0.03, 0.53]	0.002 [−0.005, 0.009] (BF = 0) d = 0.06 [−0.17, 0.30]	0.00 [−0.002, 0.002] (BF = 0) d = 0.02 [−0.09, 0.13]
Boundary ~ boredom * order					
boredom	−0.001 [−0.002, 0.00] (BF = 0.14) d = −0.07 [−0.15, −0.004]	0.00 [−0.001, 0.001] (BF = 0.03) d = 0.006 [−0.09, 0.11]	−0.001 [−0.002, 0.00] (BF = 0.18) d = −0.09 [−0.17, −0.007]	−0.001 [−0.004, 0.001] (BF = 0.07) d = −0.04 [−0.13, 0.05]	0.00 [−0.001, 0.00] (BF = 0.02) d = −0.02 [−0.06, 0.02]
order	−0.006 [−0.009, −0.004] (BF > 500) d = −0.46 [−0.64, −0.27]	−0.01 [−0.01, −0.009] (BF > 500) d = −0.91 [−1.17, −0.64]	0.001 [−0.002, 0.004] (BF = 0) d = 0.07 [−0.13, 0.28]	−0.04 [−0.04, −0.03] (BF > 500) d = −1.21 [−1.52, −0.92]	−0.01 [−0.01, −0.009] (BF > 500) d = −0.54 [−0.66, −0.43]
boredom * order	−0.001 [−0.005, 0.003] (BF = 0) d = −0.08 [−0.35, 0.19]	0.00 [−0.005, 0.006] (BF = 0) d = 0.06 [−0.37, 0.52]	0.00 [−0.004, 0.005] (BF = 0) d = 0.06 [−0.27, 0.40]	0.00 [−0.007, 0.009] (BF = 0) d = 0.02 [−0.24, 0.31]	0.00 [−0.002, 0.003] (BF = 0) d = 0.005 [−0.13, 0.14]

Note. Numbers within brackets are the upper and lower limits of 95% highest posterior density intervals. Informed priors reflecting Cohen's *d* = 0.28 (SD = 0.14) were created by rescaling the expected effect size to the raw scale of each outcome measure. Bayes factors were computed using bridge sampling. Bayes factor > 1 indicates evidence for the experimental hypothesis, whereas values < 1 indicates evidence for the null hypothesis. BF = Bayes factor.

Table S5
Effects of Phenomenology on Drift Rate (Session-Order Effects): Bayesian Multilevel Model Parameter Estimates Using Informed Priors

	Study 1 (20 min)	Study 2 (15 min)	Study 3 (5 min)	Study 4 (10 min)	Overall
Drift rate ~ fatigue * order					
fatigue	−0.001 [−0.003, 0.00] (BF = 0.03) d = −0.04 [−0.09, 0.03]	−0.001 [−0.003, 0.00] (BF = 0.09) d = −0.04 [−0.09, 0.03]	0.00 [−0.002, 0.003] (BF = 0.02) d = 0.009 [−0.05, 0.07]	0.00 [−0.003, 0.002] (BF = 0.02) d = −0.01 [−0.07, 0.06]	0.00 [−0.002, 0.00] (BF = 0.01) d = −0.01 [−0.04, 0.02]
order	0.01 [0.005, 0.02] (BF = 2.40) d = 0.34 [0.16, 0.53]	0.01 [0.00, 0.02] (BF = 0.045 d = 0.26 [0.02, 0.50]	0.004 [−0.005, 0.01] (BF = 0.01) d = 0.10 [−0.11, 0.30]	0.05 [0.04, 0.06] (BF > 500) d = 1.39 [1.09, 1.70]	0.02 [0.01, 0.02] (BF > 500) d = 0.42 [0.31, 0.53]
fatigue * order	0.001 [−0.008, 0.01] (BF = 0.005) d = 0.04 [−0.20, 0.29]	−0.008 [−0.02, 0.005] (BF = 0.01) d = −0.23 [−0.58, 0.12]	−0.005 [−0.01, 0.004] (BF = 0.01) d = −0.12 [−0.34, 0.10]	0.002 [−0.009, 0.01] (BF = 0.01) d = 0.05 [−0.23, 0.33]	−0.002 [−0.007, 0.003] (BF = 0.004) d = −0.05 [−0.17, 0.08]
Drift rate ~ frustration * order					
frustration	−0.003 [−0.004, 0.00] (BF = 0.34) d = −0.07 [−0.13, −0.02]	−0.002 [−0.005, 0.001] (BF = 0.06) d = −0.06 [−0.14, 0.03]	0.00 [−0.003, 0.003] (BF = 0.03) d = −0.004 [−0.07, 0.06]	−0.001 [−0.004, 0.002] (BF = 0.03) d = −0.03 [−0.10, 0.06]	−0.001 [−0.003, 0.00] (BF = 0.05) d = −0.03 [−0.07, 0.005]
order	0.01 [0.006, 0.02] (BF = 3.27) d = 0.35 [0.17, 0.53]	0.01 [0.00, 0.02] (BF = 0.04) d = 0.26 [0.02, 0.50]	0.004 [−0.005, 0.01] (BF = 0.01) d = 0.10 [−0.11, 0.30]	0.05 [0.04, 0.06] (BF > 500) d = 1.38 [1.08, 1.70]	0.02 [0.01, 0.02] (BF > 500) d = 0.42 [0.31, 0.53]
frustration * order	0.004 [−0.004, 0.01] (BF = 0.01) d = 0.12 [−0.11, 0.37]	−0.002 [−0.02, 0.01] (BF = 0.01) d = −0.06 [−0.42, 0.31]	−0.007 [−0.02, 0.004] (BF = 0.01) d = −0.16 [−0.41, 0.10]	0.00 [−0.01, 0.01] (BF = 0.01) d = 0.001 [−0.36, 0.35]	0.00 [−0.006, 0.005] (BF = 0.002) d = −0.01 [−0.15, 0.13]
Drift rate ~ boredom * order					
boredom	−0.003 [−0.006, −0.001] (BF = 0.76) d = −0.10 [−0.17, −0.03]	−0.003 [−0.007, 0.00] (BF = 0.11) d = −0.08 [−0.18, 0.02]	−0.001 [−0.005, 0.002] (BF = 0.04) d = −0.03 [−0.11, 0.06]	−0.001 [−0.005, 0.002] (BF = 0.03) d = −0.03 [−0.12, 0.06]	−0.002 [−0.004, 0.00] (BF = 0.30) d = −0.06 [−0.10, −0.01]
order	0.01 [0.005, 0.02] (BF = 1.35) d = 0.33 [0.14, 0.51]	0.01 [0.00, 0.02] (BF = 0.05) d = 0.27 [0.02, 0.51]	0.004 [−0.005, 0.01] (BF = 0.01) d = 0.09 [−0.11, 0.30]	0.05 [0.04, 0.06] (BF > 500) d = 1.37 [1.07, 1.68]	0.02 [0.01, 0.02] (BF > 500) d = 0.41 [0.30, 0.52]
boredom * order	0.003 [−0.007, 0.01] (BF = 0.01) d = 0.10 [−0.19, 0.40]	0.002 [−0.01, 0.02] (BF = 0.01) d = 0.06 [−0.37, 0.50]	−0.01 [−0.02, 0.004] (BF = 0.02) d = −0.23 [−0.54, 0.08]	−0.007 [−0.02, 0.009] (BF = 0.01) d = −0.19 [−0.59, 0.23]	−0.003 [−0.009, 0.004] (BF = 0.004) d = −0.06 [−0.23, 0.10]

Note. Numbers within brackets are the upper and lower limits of 95% highest posterior density intervals. Informed priors reflecting Cohen's *d* = 0.28 (SD = 0.14) were created by rescaling the expected effect size to the raw scale of each outcome measure. Bayes factors were computed using bridge sampling. Bayes factor > 1 indicates evidence for the experimental hypothesis, whereas values < 1 indicates evidence for the null hypothesis. BF = Bayes factor.

Table S6
Estimates after Re-Including Outliers: Bayesian Multilevel Model Parameter Estimates Using Informed Priors

	Study 1 (20 min)	Study 2 (15 min)	Study 3 (5 min)	Study 4 (10 min)	Overall
Demand ~ condition	1.94 [1.72, 2.15] (BF > 500) d = 1.39 [1.19, 1.60]	1.83 [1.56, 2.12] (BF > 500) d = 1.27 [0.99, 1.55]	2.36 [2.12, 2.61] (BF > 500) d = 1.66 [1.39, 1.92]	2.30 [1.99, 2.59] (BF > 500) d = 1.61 [1.28, 1.94]	2.82 [2.69, 2.96] (BF > 500) d = 2.12 [1.97, 2.27]
Effort ~ condition	1.93 [1.73, 2.14] (BF > 500) d = 1.43 [1.22, 1.66]	1.66 [1.39, 1.93] (BF > 500) d = 1.15 [0.90, 1.41]	2.56 [2.32, 2.79] (BF > 500) d = 1.93 [1.64, 2.23]	2.10 [1.79, 2.40] (BF > 500) d = 1.36 [1.08, 1.65]	2.78 [2.65, 2.90] (BF > 500) d = 2.09 [1.94, 2.24]
Frustration ~ condition	2.17 [1.95, 2.38] (BF > 500) d = 1.62 [1.37, 1.88]	1.39 [1.11, 1.68] (BF > 500) d = 0.93 [0.69, 1.18]	1.61 [1.37, 1.86] (BF > 500) d = 1.12 [0.89, 1.34]	1.57 [1.27, 1.86] (BF > 500) d = 1.02 [0.75, 1.29]	2.13 [1.99, 2.26] (BF > 500) d = 1.53 [1.40, 1.66]
Boredom ~ condition	1.18 [0.94, 1.43] (BF > 500) d = 0.76 [0.58, 0.94]	0.80 [0.49, 1.11] (BF > 500) d = 0.49 [0.29, 0.69]	0.68 [0.43, 0.95] (BF > 500) d = 0.42 [0.25, 0.58]	0.85 [0.52, 1.16] (BF > 500) d = 0.46 [0.29, 0.66]	1.00 [0.84, 1.15] (BF > 500) d = 0.61 [0.51, 0.71]
Fatigue ~ condition	2.08 [1.87, 2.28] (BF > 500) d = 1.66 [1.40, 1.92]	1.50 [1.23, 1.77] (BF > 500) d = 1.04 [0.79, 1.29]	2.11 [1.87, 2.37] (BF > 500) d = 1.49 [1.21, 1.75]	2.05 [1.74, 2.36] (BF > 500) d = 1.30 [1.03, 1.61]	2.52 [2.40, 2.65] (BF > 500) d = 1.91 [1.77, 2.06]
Boundary ~ condition + congruency					
Condition	−0.004 [−0.006, −0.002] (BF = 14.44) d = −0.21 [−0.33, −0.09]	−0.002 [−0.005, 0.00] (BF = 0.10) d = −0.11 [−0.26, 0.05]	−0.006 [−0.008, −0.004] (BF > 500) d = −0.35 [−0.48, −0.21]	−0.009 [−0.01, −0.002] (BF = 3.84) d = −0.18 [−0.30, −0.05]	−0.004 [−0.006, −0.003] (BF > 500) d = −0.18 [−0.24, −0.10]
Congruency	−0.02 [−0.02, −0.02] (BF > 500) d = −1.07 [−1.20, −0.94]	−0.02 [−0.02, −0.01] (BF > 500) d = −0.94 [−1.12, −0.76]	−0.01 [−0.02, −0.01] (BF > 500) d = −0.85 [−1.00, −0.72]	−0.01 [−0.02, −0.004] (BF = 0.33) d = −0.25 [−0.42, −0.10]	−0.02 [−0.02, −0.01] (BF > 500) d = −0.62 [−0.69, −0.54]
Drift rate ~ condition + congruency					
Condition	−0.01 [−0.02, −0.005] (BF = 22.94) d = −0.22 [−0.33, −0.10]	−0.01 [−0.02, −0.002] (BF = 0.85) d = −0.20 [−0.36, −0.05]	0.00 [−0.007, 0.008] (BF = 0.04) d = 0.01 [−0.12, 0.15]	−0.001 [−0.01, 0.009] (BF = 0.05) d = −0.02 [−0.18, 0.13]	−0.004 [−0.008, 0.00] (BF = 0.26) d = −0.08 [−0.15, −0.01]
Congruency	−0.10 [−0.11, −0.10] (BF > 500) d = −1.96 [−2.11, −1.80]	−0.10 [−0.11, −0.09] (BF > 500) d = −2.15 [−2.37, −1.93]	−0.09 [−0.10, −0.08] (BF > 500) d = −1.62 [−1.78, −1.46]	−0.10 [−0.11, −0.09] (BF > 500) d = −1.50 [−1.69, −1.30]	−0.10 [−0.10, −0.09] (BF > 500) d = −1.78 [−1.86, −1.69]
Boundary ~ fatigue	−0.001 [−0.002, 0.00] (BF = 0.79) d = −0.08 [−0.14, −0.03]	0.00 [−0.001, 0.001] (BF = 0.02) d = −0.007 [−0.09, 0.07]	−0.002 [−0.003, −0.001] (BF > 500) d = −0.16 [−0.22, −0.10]	−0.001 [−0.004, 0.001] (BF = 0.07) d = −0.03 [−0.09, 0.03]	−0.001 [−0.002, 0.00] (BF = 2.42) d = −0.05 [−0.08, −0.02]
Boundary ~ frustration	−0.001 [−0.002, 0.00] (BF = 0.85) d = −0.08 [−0.14, −0.03]	0.00 [−0.001, 0.001] (BF = 0.02) d = 0.004 [−0.08, 0.08]	−0.002 [−0.003, 0.00] (BF = 23.43) d = −0.13 [−0.19, −0.06]	−0.001 [−0.005, 0.002] (BF = 0.06) d = −0.02 [−0.10, 0.04]	0.00 [−0.002, 0.00] (BF = 0.02) d = −0.04 [−0.07, −0.003]
Boundary ~ boredom	0.00 [−0.002, 0.00] (BF = 0.08) d = −0.06 [−0.13, 0.005]	0.00 [−0.001, 0.001] (BF = 0.02) d = 0.003 [−0.09, 0.09]	−0.002 [−0.003, 0.00] (BF = 1.27) d = −0.11 [−0.19, −0.04]	0.001 [−0.003, 0.005] (BF = 0.07) d = 0.03 [−0.05, 0.10]	0.00 [0.00, 0.00] (BF = 0.07) d = 0.00 [−0.04, 0.04]
Drift rate ~ fatigue	−0.002 [−0.005, 0.00] (BF = 0.08) d = −0.05 [−0.11, 0.003]	−0.002 [−0.005, 0.00] (BF = 0.07) d = −0.06 [−0.14, 0.02]	0.00 [−0.003, 0.003] (BF = 0.02) d = 0.005 [−0.05, 0.06]	0.00 [−0.004, 0.003] (BF = 0.02) d = −0.01 [−0.07, 0.05]	0.00 [−0.002, 0.00] (BF = 0.01) d = −0.02 [−0.05, 0.01]
Drift rate ~ frustration	−0.004 [−0.006, −0.001] (BF = 2.16) d = −0.09 [−0.14, −0.03]	−0.002 [−0.005, 0.00] (BF = 0.07) d = −0.07 [−0.15, 0.02]	0.00 [−0.003, 0.003] (BF = 0.02) d = 0.002 [−0.06, 0.07]	−0.002 [−0.006, 0.002] (BF = 0.04) d = −0.04 [−0.11, 0.04]	−0.002 [−0.003, 0.00] (BF = 0.17) d = −0.04 [−0.07, −0.005]
Drift rate ~ boredom	−0.005 [−0.008, −0.002] (BF = 9.48) d = −0.12 [−0.19, −0.05]	−0.002 [−0.006, 0.001] (BF = 0.06) d = −0.07 [−0.16, 0.03]	0.00 [−0.004, 0.003] (BF = 0.03) d = −0.01 [−0.09, 0.06]	−0.005 [−0.01, 0.00] (BF = 0.46) d = −0.10 [−0.19, −0.01]	−0.003 [−0.005, −0.001] (BF = 2.55) d = −0.07 [−0.11, −0.03]

Note. Numbers within brackets are the upper and lower limits of 95% highest posterior density intervals. Informed priors reflecting Cohen's *d* = 0.28 (SD = 0.14) were created by rescaling the expected effect size to the raw scale of each outcome measure. Bayes factors were computed using bridge sampling. Bayes factor > 1 indicates evidence for the experimental hypothesis, whereas values < 1 indicates evidence for the null hypothesis. BF = Bayes factor.