Supporting Information

Michael et al. 10.1073/pnas.1308674111

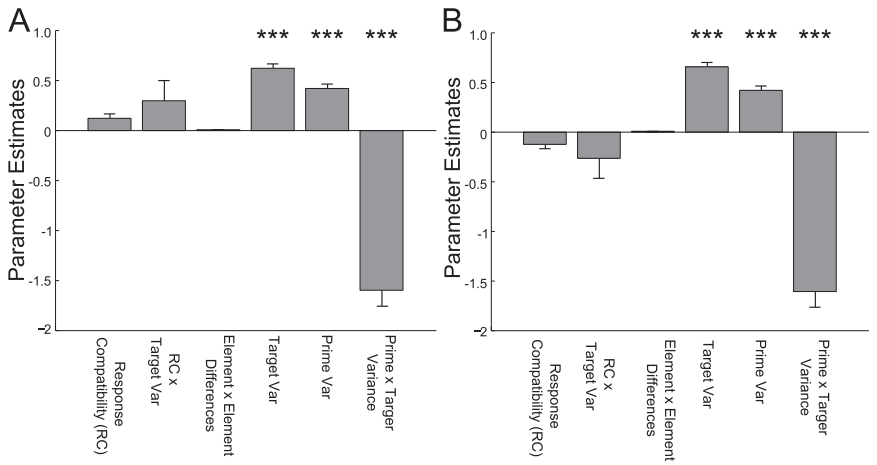

Fig. S1. Parameter estimates from a regression of prime and target statistics on response times, with additional response compatibility regressors included. Data from Exp. 1. All error bars show SEM. (*A*) Parameter estimates for (*i*) response compatibility measure (RC), defined as the absolute difference between the sum of feature values for prime and target arrays ($|\Sigma P_{1-8} - T_{1-8}|$), and (*ii*) its interaction with target variance, alongside (*iii*) the summed element by element difference (as shown individually in Fig. 2*B*), (*iv*) target variance, (*v*) prime variance, and (*vi*) the interaction between prime and target variance. (*B*) As for *A*, with RC defined instead as the sum of the prime and target feature values ($|\Sigma P_{1-8} + T_{1-8}|$).

Table S1. Effect of prime and target statistics

Variable	DOF	*F* value	*P* value
Exp. 1			
Tvar	1, 39	76.9	<0.001***
Pvar	1, 39	5.24	0.028*
Tvar × Pvar	1, 39	27.5	<0.001***
Exp. 2, variance			
Tvar	1, 38	37.8	<0.001***
Pvar	1, 38	1.27	0.267
Tvar × Pvar	1, 38	5.03	0.031*
Exp. 2, mean			
Tmean	1, 38	63.6	<0.001***
Pmean	1, 38	0.04	0.841
Tmean × Pmean	1, 38	0.20	0.661

Exp. 1. ANOVA with two factors [prime variance (Pvar) or target variance (Tvar)], each with two levels (high/low). *$P < 0.05$, **$P < 0.01$, or ***$P < 0.001$. Exp. 2. ANOVA with two factors (prime/target variance or prime/target mean distance from category boundary), each with two levels (high/low). DOF, degrees of freedom.

Table S2. Effect of prime–target intervals (PTI)

Variable	DOF	*F* value	*P* value
Tvar	1, 78	105	<0.001***
Pvar	1, 78	6.37	0.014*
Pvar × Tvar	1, 78	26.2	<0.001***
PTI	2, 121	16.7	<0.001***
PTI × Tvar	2, 153	1.31	0.273
PTI × Pvar	2, 155	0.80	0.450
PTI × Pvar × Tvar	2, 147	1.97	0.146

Exps. 1 and 2. ANOVA with three factors: prime/target variance and PTI duration. Prime and target variance had two levels (high/low) and PTI had three levels (100, 200, or 500 ms). *$P < 0.05$, **$P < 0.01$, or ***$P < 0.001$.

Table S3. Effect of category congruence on reaction times (RTs): Data collapsed across all PTI conditions (Exp. 3 omitted, because it is identical to Table S5)

Variable	DOF	*F* value	*P* value
Exp. 1			
Tvar	1, 39	78.3	<0.001***
Switch	1, 39	23.0	<0.001***
Tvar × Switch	1, 39	0.48	0.492
Pvar	1, 39	4.82	0.034*
Pvar × Switch	1, 39	16.5	<0.001***
Pvar × Tvar	1, 39	27.1	<0.001***
Pvar × Tvar × Switch	1, 39	9.42	0.004**
Exp. 2			
Tvar	1, 38	38.3	<0.001***
Switch	1, 38	20.9	<0.001***
Tvar × Switch	1, 38	0.02	0.893
Pvar	1, 38	0.99	0.326
Pvar × Switch	1, 38	6.81	0.013*
Pvar × Tvar	1, 38	5.03	0.031*
Pvar × Tvar × Switch	1, 38	11.2	0.002**

Exp. 1. ANOVA with three factors (prime/target variance and category congruence: switch), each with two levels (high/low or switch/stay). Exp. 2. ANOVA with three factors (prime/target variance and category congruence: switch), each with two levels (high/low or switch/stay. *$P < 0.05$, **$P < 0.01$, or ***$P < 0.001$.

Table S4. Regression analyses for prime × target variance interaction, for switch and stay trials

	Switch	Stay
Overall	$t_{(92)} = 1.38$, $P < 0.09$	$t_{(92)} = 7.66$, $P < 0.001$***
Exp. 1	$t_{(39)} = 1.44$, $P < 0.08$	$t_{(39)} = 6.15$, $P < 0.001$***
Exp. 2	$t_{(38)} = 1.22$, $P < 0.884$	$t_{(38)} = 3.54$, $P < 0.001$***
Exp. 3	$t_{(13)} = 2.24$, $P < 0.021$*	$t_{(13)} = 3.91$, $P < 0.001$***

Data collapsed across all PTI conditions. *$P < 0.05$, **$P < 0.01$, or ***$P < 0.001$.

Table S5. Effect of category congruence on RTs: 100- and 200-ms PTI conditions

Variable	DOF	*F* value	*P* value
Exp. 1			
Tvar	1, 39	67.1	<0.001***
Switch	1, 39	32.3	<0.001***
Tvar*Switch	1, 39	1.23	0.275
Pvar	1, 39	2.63	0.113
Pvar × Switch	1, 39	13.6	<0.001***
Pvar × Tvar	1, 39	30.1	<0.001***
Pvar × Tvar × Switch	1, 39	5.74	0.022*
Exp. 2			
Tvar	1, 38	32.4	<0.001***
Switch	1, 38	24.6	<0.001***
Tvar × Switch	1, 38	0.01	0.993
Pvar	1, 38	1.07	0.308
Pvar × Switch	1, 38	2.18	0.148
Pvar × Tvar	1, 38	4.59	0.039*
Pvar × Tvar × Switch	1, 38	9.05	0.005**
Exp. 3			
Tvar	1, 13	18.9	0.001***
Switch	1, 13	2.52	0.137
Tvar × Switch	1, 13	1.98	0.183
Pvar	1, 13	8.64	0.011*
Pvar × Switch	1, 13	2.52	0.136
Pvar × Tvar	1, 13	13.7	0.003**
Pvar × Tvar × Switch	1, 13	3.90	0.070

Exp. 1. ANOVA with three factors (prime/target variance and category congruence: switch), each with two levels (high/low or switch/stay). Exp. 2. ANOVA with three factors (prime/target variance and category congruence: switch), each with two levels (high/low or switch/stay). Exp. 3. ANOVA with three factors (prime/target variance and category congruence: switch), each with two levels (high/low or switch/stay). *$P < 0.05$, **$P < 0.01$, or ***$P < 0.001$.