

Reduced processing of afforded actions while observing mental content as ongoing mental phenomena

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Supplementary Materials

Supplementary Tables

<i>Predictors</i>	object/grating duration ratio	
	<i>Estimate (95%CI)</i>	<i>p</i>
Group [LTM / NVM]	0.877 (0.776 – 0.992)	0.037
State [OM / BL]	0.986 (0.949 – 1.024)	0.465
Affordance [high / low]	0.972 (0.928 – 1.017)	0.214
Run [n+1 / n]	1.007 (1.002 – 1.011)	0.005
Group x State	1.027 (0.990 – 1.066)	0.154
Group x Affordance	0.996 (0.953 – 1.042)	0.871
State x Affordance	0.970 (0.942 – 0.999)	0.046
Group x State x Affordance	1.034 (1.004 – 1.065)	0.025
Random Effects		
σ^2	0.218	
τ_{00} subject: intercept	0.158	
τ_{11} subject: state	0.000	
τ_{11} subject: affordance	0.010	
τ_{11} subject: run	0.000	
ρ_{01}	0.659	
	0.017	
	-0.501	

object/grating duration ratio	
ICC	0.388
N _{id}	33
Observations	995
Marginal R ² / Conditional R ²	0.062 / 0.426

Supplementary table 1. Estimates for the model of the log-ratio of object/grating durations. Fixed parameters have been exponentiated. σ^2 is the residual variance of the model, τ are by-subject random variances and ρ_{01} are correlations between the random intercept and random slopes.

<i>Predictors</i>	full dataset		with alpha power covariate		1st half of experiment		2nd half of experiment	
	<i>Estimate</i> (95%CI)	<i>p</i>	<i>Estimate</i> (95%CI)	<i>p</i>	<i>Estimate</i> (95%CI)	<i>p</i>	<i>Estimate</i> (95%CI)	<i>p</i>
Group [LTM / NVM]	0.984 (0.675 – 1.435)	0.93 3	0.892 (0.674 – 1.182)	0.42 6	0.881 (0.692 – 1.122)	0.30 5	0.822 (0.642 – 1.051)	0.11 8
State [OM / BL]	1.006 (0.978 – 1.034)	0.69 7	1.003 (0.986 – 1.019)	0.76 4	0.995 (0.762 – 1.298)	0.96 9	0.968 (0.742 – 1.264)	0.81 3
Affordance [high / low]	0.995 (0.980 – 1.011)	0.55 5	0.994 (0.981 – 1.008)	0.40 0	0.995 (0.980 – 1.011)	0.55 2	0.998 (0.979 – 1.017)	0.84 6
Run [n+1 / n]	1.005 (1.003 – 1.007)	<0.001	1.003 (1.001 – 1.004)	<0.001	1.006 (1.002 – 1.009)	<0.001	1.001 (0.999 – 1.003)	0.37 7

	full dataset			with alpha power covariate			1st half of 2nd half of experiment					
Group x State	0.974 (0.924 1.027)	-	0.33 6	0.986 (0.954 1.019)	-	0.40 5	0.995 (0.613 1.613)	-	0.98 3	1.035 (0.625 1.714)	-	0.89 3
Group x Affordance	0.988 (0.959 1.019)	-	0.44 4	0.979 (0.954 1.005)	-	0.11 7	0.980 (0.950 1.011)	-	0.19 7	0.985 (0.948 1.022)	-	0.42 0
State x Affordance	0.967 (0.947 0.988)	-	0.00 2	0.978 (0.959 0.997)	-	0.02 1	0.991 (0.961 1.023)	-	0.58 8	0.982 (0.946 1.019)	-	0.33 7
Group x State x Affordance	0.963 (0.923 1.005)	-	0.08 5	0.967 (0.930 1.005)	-	0.08 4	0.939 (0.882 0.999)	-	0.04 7	1.007 (0.934 1.086)	-	0.85 1
log(alpha power)				1.486 (1.397 1.581)	-	<0.0 01	1.437 (1.349 1.531)	-	<0.0 01	1.525 (1.435 1.622)	-	<0.0 01

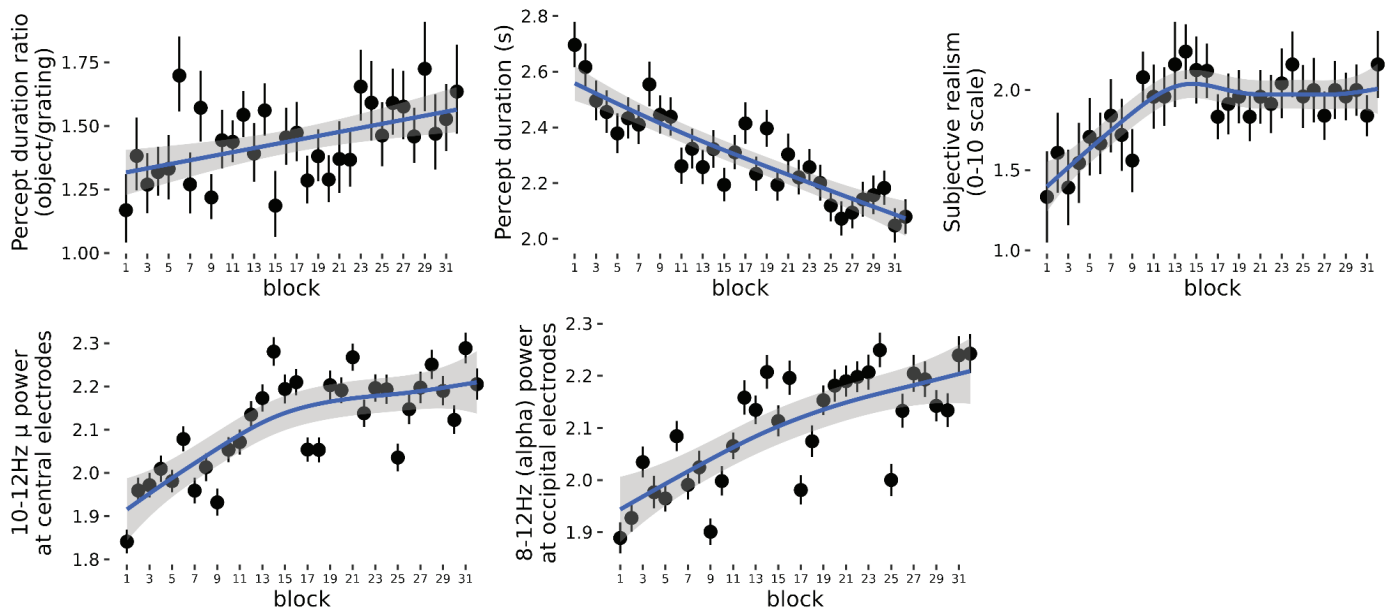
Random Effects

σ^2	0.114			0.094			0.093			0.095		
T00 subject: intercept	0.307			0.168			0.065			0.074		
T11 subject: state	0.001			0.000			0.097			0.125		
T11 subject: affordance	0.000			0.000			0.000			0.000		
T11 subject: run	0.000			0.000			0.000			0.000		
T11 subject: log(alpha)				0.030			0.030			0.027		
ρ_{01}	-0.066			-0.307			-0.404			0.686		

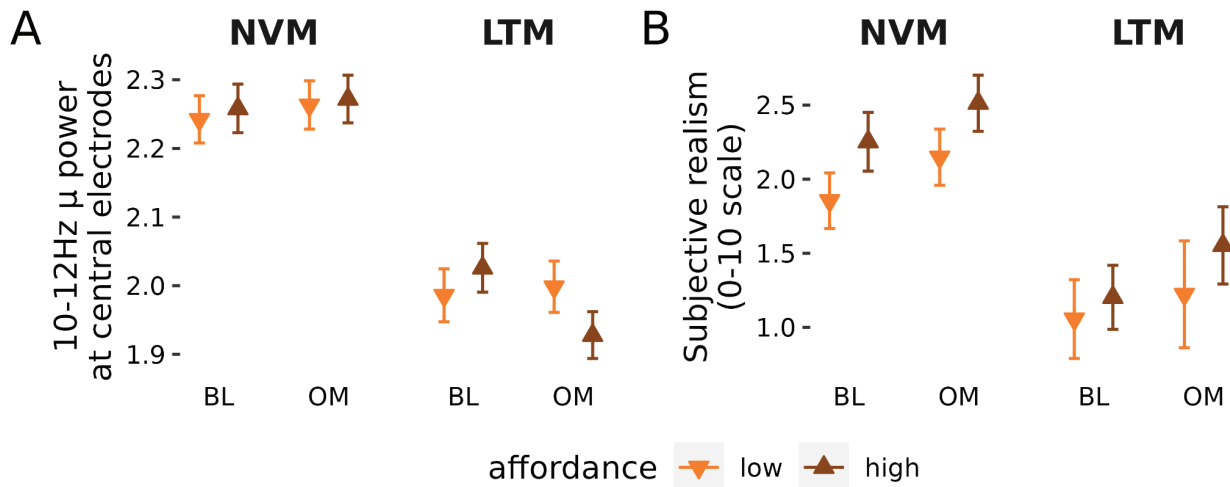
	full dataset	with alpha power covariate	1st half of experiment	2nd half of experiment
	0.041	0.140	0.265	0.352
	0.257	0.095	0.013	-0.751
		0.202	0.319	0.497
ICC	0.748	0.708	0.604	0.548
N	33 _{id}	33 _{id}	33 _{id}	33 _{id}
Observations	17067	17067	8580	8487
Marginal R ² / Conditional R ²	0.005 / 0.749	0.163 / 0.755	0.176 / 0.674	0.285 / 0.677

Supplementary table 2. Regression estimates for planned and exploratory models of log(μ power). Fixed parameters have been exponentiated. σ^2 is the residual variance of the model, τ are by-subject random variances and ρ_{01} are correlations between the random intercept and random slopes. Although regression coefficients and the marginal R2 suggest that alpha power predicts most μ power variability, effects of experimental manipulations remain significant even when alpha power is included as a covariate (compare second and first column). Such effects were mostly detected during the first part of the experiment (third column), before alpha and μ power saturated at high levels (see supplementary figure 1).

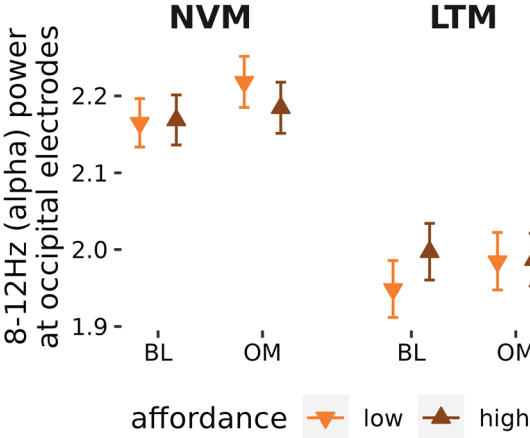
Supplementary Figures



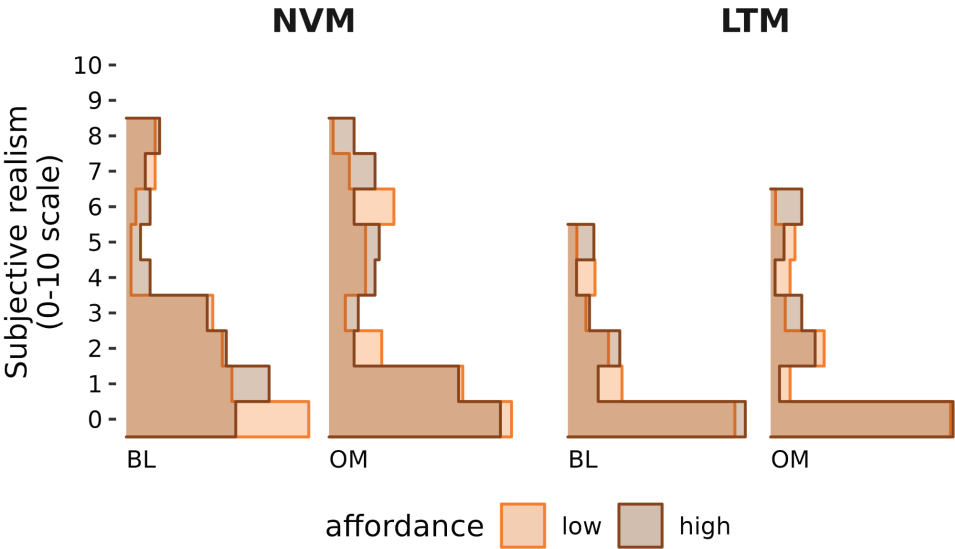
Supplementary figure 1. Temporal evolution of behavioral, neural and self-reported measures over the course of the experiment. Smooth lines are the result of thin plate spline regression over the entire dataset. Error bars are within-subject standard errors of the means.



Supplementary figure 2. Effect of experimental manipulations on central μ power. Error bars are within-subject standard errors of the means.



Supplementary figure 3. Effect of experimental manipulations on parieto-occipital alpha power. Error bars are within-subject standard errors of the means.



Supplementary figure 4. Full distributions of subjective realism ratings. While an effect of affordance has been found across all conditions, it differs qualitatively between groups and states.

