

## Contributions of the parietal cortex to increased efficiency of planning-based action selection

Randerath, Jennifer; Valyear, Kenneth; Philip, Benjamin A.; Frey, Scott H.

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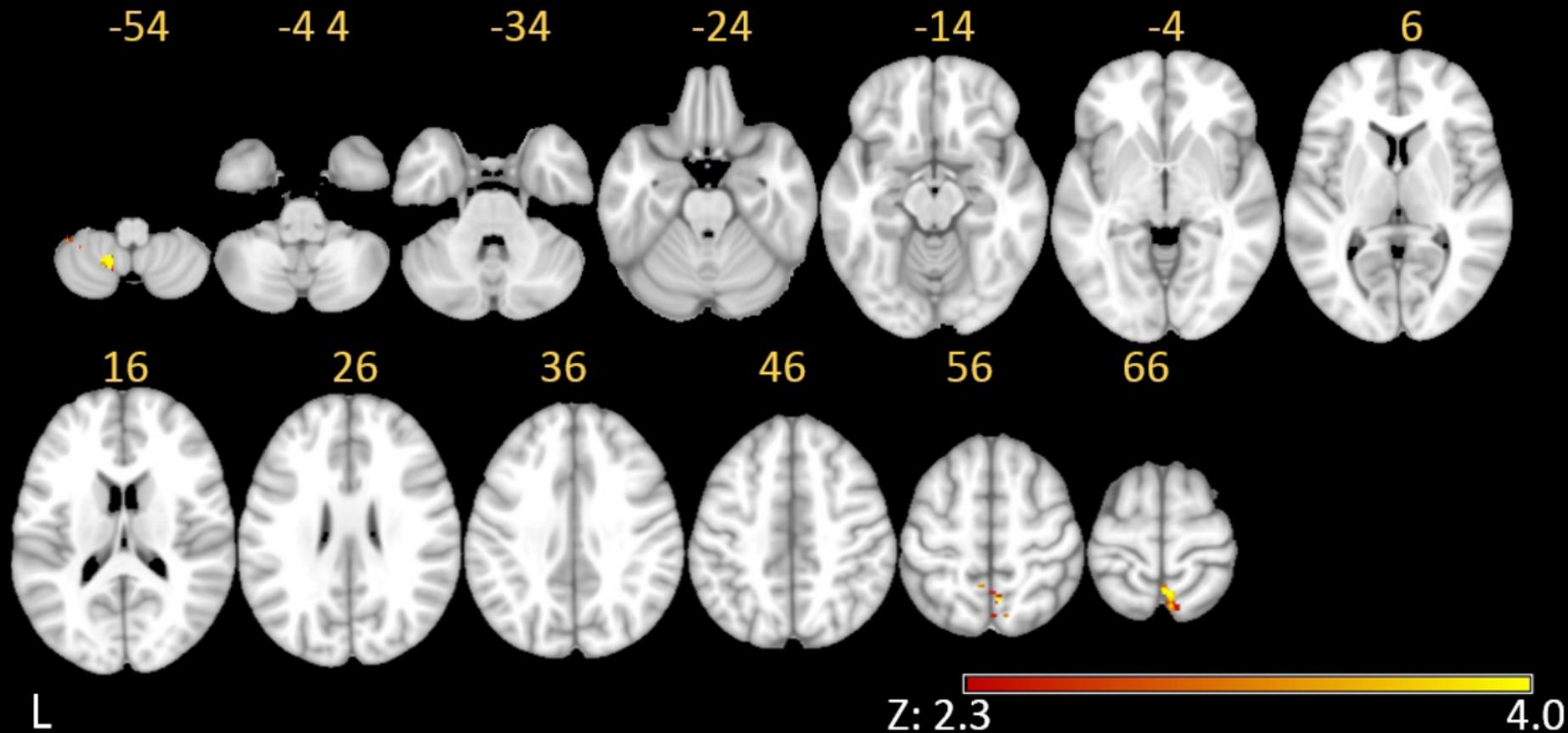
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# Interaction Plan RS > Rule RS



## Supplementary tables:

**Table 1.** Estimated smoothness (AvgFWHM) and critical clustersize. All values in voxels:

Contrast	Plan>Rule	PlanRS: Change>Repeat	RuleRS: Change>Repeat	Interaction: PlanRS>RuleRS
AvgFWHM (RESELS <sup>1/3</sup> )	3.96	3.79	4.09	4.00
Critical Clustersize*	281	321	n.a.	287

\* threshold  $z = 2.3$

**Table 2. Three-Way Interaction:** Repeated measures ANOVA with a 2 (Condition: Plan, Rule)  $\times$  2 (Congruency: Repeated, Changed)  $\times$  8 (ROI) factorial design

Variable	df	F	p
condition	1, 19	2.74	.114
congruency	1, 19	4.31	.052
ROI	3.9, 75.8	18.06	.000**
condition * congruency	1, 19	3.06	.096
condition * ROI	2.5, 48.2	3.99	.017*
congruency * ROI	2.3, 44.2	7.64	.001**
condition * congruency * ROI	2.5, 47.2	3.86	.021*

df based on Greenhouse Geisser

\*\* :  $p < .01$

\* :  $p < .05$

**Table 2. Two-Way Interaction:** Repeated measures ANOVA with a 2 (Condition: Plan, Rule)  $\times$  2 (Congruency: Repeated, Changed) factorial design for each ROI.

ROI	factor	F (1, 19)	p
Left Cerebellum	condition	2.04	.170
	congruency	2.13	.160
	condition * congruency	3.82	.065(*)
Right Cerebellum	condition	0.19	.665
	congruency	1.14	.298
	condition * congruency	2.52	.129
Left dPMC	condition	0.82	.376
	congruency	0.20	.659
	condition * congruency	1.54	.230
Right dPMC	condition	0.33	.572
	congruency	0.21	.652
	condition * congruency	1.48	.239
Left SMG	condition	4.63	.044*
	congruency	1.69	.209
	condition * congruency	5.03	.037*
Left caudal SPL	condition	11.94	.003**
	congruency	12.27	.002**
	condition * congruency	4.16	.056(*)
Right caudal SPL	condition	1.30	.269
	congruency	9.38	.006**
	condition * congruency	3.87	.064(*)

<b>Left vPMC</b>	condition	0.77	.391
	congruency	0.05	.829
	condition * congruency	0.42	.523

\*\* : p<.01

\* : p<.05

(\*) : p<.1

**Table 4.** Post hoc calculated pairwise t-tests elucidating condition (plan, rule) specific effects of congruency (repeated, change) for ROIs with interactions p<.1

<b>condition</b>	<b>ROI</b>	<b>t</b>	<b>p</b>	<b>condition</b>	<b>ROI</b>	<b>t</b>	<b>p</b>
<b>Plan RS</b>	<b>left Cerebellum</b>	2.93	.009(*)	<b>Rule RS</b>	<b>left Cerebellum</b>	-0.52	.606
	<b>left caudal SPL</b>	4.72	.000*		<b>left caudal SPL</b>	0.45	.659
	<b>right caudal SPL</b>	4.50	.000*		<b>right caudal SPL</b>	0.23	.823
	<b>left SMG</b>	2.89	.009(*)		<b>left SMG</b>	-0.98	.338

\* significance level indicated based on Bonferroni correction p<.006 for eight comparisons.

(\*) marginal significance