

Supporting Information

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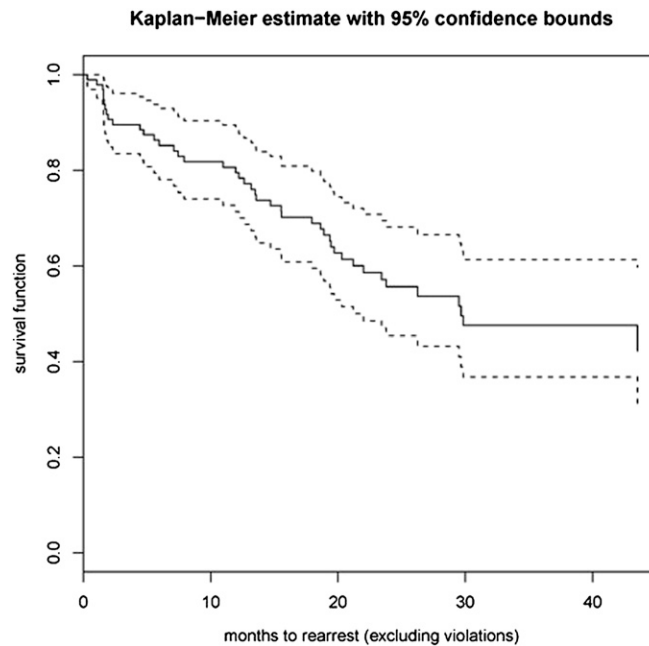


Fig. S1. Kaplan-Meier survival function describing the proportion of participants who avoided rearrest (i.e., “survival”) over time (Mean, 28.97; SE, 2.00).

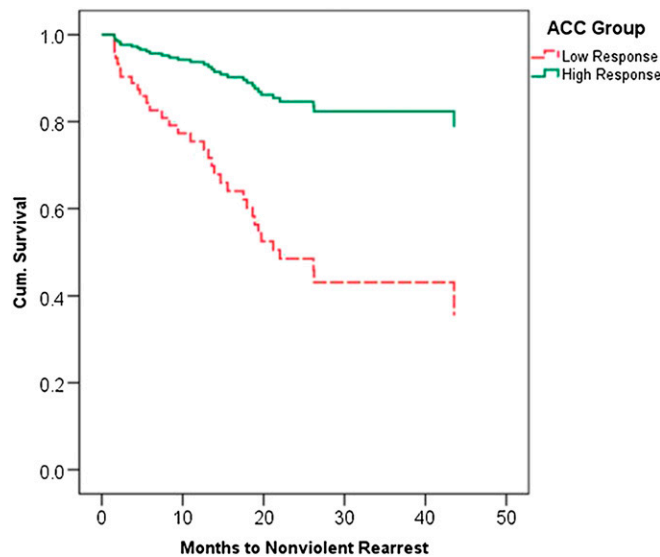


Fig. S2. Cox survival function showing proportional rearrest survival rates of high (solid green) vs. low (dashed red) anterior cingulate cortex (ACC) response participants for nonviolent crimes. Results of the median split analysis were equivalent to that of the parametric model: bootstrapped $B = 1.47$; $SE = 0.51$; 95% confidence interval (CI), 0.70–2.69; $P < 0.001$. The probability that offenders with relatively high ACC activity would be rearrested for a nonviolent crime within this time window was 31%, as opposed to 52% for low ACC offenders. Mean survival times to rearrest for a nonviolent crime for the high and low ACC activity groups were 37.59 (2.01) mo and 28.43 (2.90) mo, respectively.

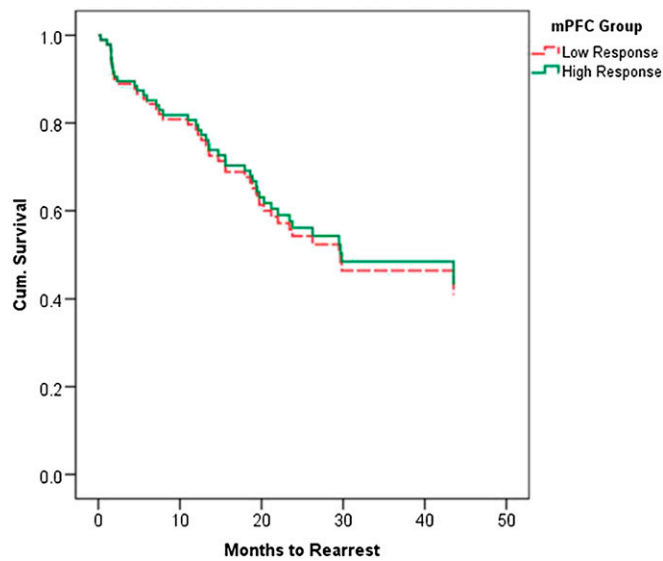


Fig. S3. Cox survival function showing nonsignificant difference in proportion of rearrests for high (solid green) vs. low (dashed red) medial prefrontal cortex (mPFC) control region response groups for any crime, controlling for other measured covariates. Results of the median split analysis were equivalent to that of the parametric model: bootstrapped $B = 0.08$; $SE = 0.40$; 95% CI, -0.69 to 0.88 ; $P = 0.82$. Mean survival time to rearrest for the high and low medial prefrontal cortex groups were 29.00 (2.68) mo and 28.27 (2.85) mo, respectively.

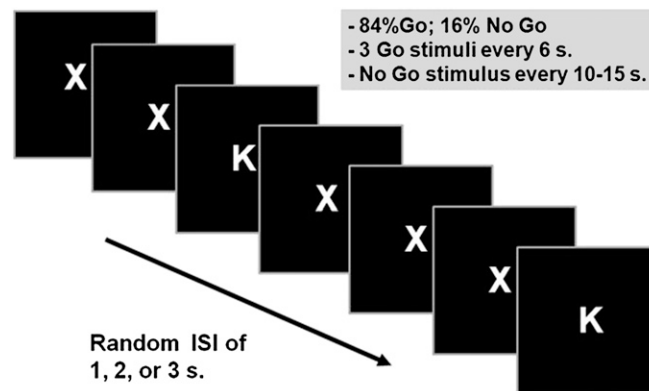


Fig. S4. Go/No-Go task. The letter “X” is the target (i.e., “go”) stimulus. The letter “K” is the distractor (i.e., “no-go”) stimulus. Commission errors occur when the participant erroneously presses the button for a distractor stimulus.

Table S1. Results of individual Cox regression analyses for seven risk factors for rearrest, showing change in χ^2 ($\Delta\chi^2$), unstandardized B , and relative risk statistic ($\exp[B]$)

Factor	N	Mean	SD	$\Delta\chi^2$ (P value)	B	$\exp[B]$	95% CI for $\exp[B]$
Months to rearrest	96	21.97	13.81	—	—	—	—
Age at release	96	33.10	7.78	3.42 (0.07)	-0.04	0.97	0.93–1.00
PCL-R factor 1 score	90	7.46	3.34	0.35 (0.56)	0.03	1.03	0.94–1.12
PCL-R factor 2 score	90	13.95	3.78	4.43 (0.04)	-1.49	0.23	0.06–0.89
PCL-R factor interaction	90	110.90	65.17	0.00 (0.98)	0.01	1.01	0.67–1.52
Drug abuse/dependence (lifetime)	92	1.78	0.42	0.10 (0.75)	-0.11	0.90	0.45–1.78
Alcohol abuse/dependence (lifetime)	92	2.37	0.81	0.11 (0.74)	-0.06	0.94	0.66–1.34
GNG commission error rate	96	25.04	13.00	0.53 (0.47)	0.08	1.08	0.88–1.32

All $df = 1$. PCL-R factor 2 and GNG commission error distributions were skewed but successfully normalized using a log10 and square root transformation, respectively. GNG, go/no-go; PCL-R, Psychopathy Checklist-Revised.

Table S2. Pearson correlations between nine potential risk factors

Factor	mPFC β-values	Age at release	PCL-R			Alcohol abuse/ dependence (lifetime)	Drug abuse/ dependence (lifetime)	GNG commission error rate
			Factor 1 score	Factor 2 score	Factor interaction			
ACC β-values	0.00	-0.22*	0.15	0.05	0.10	0.10	-0.22*	-0.17
mPFC β-values	—	-0.07	-0.11	0.02	-0.22*	0.08	0.08	0.06
Age at release	—	—	-0.03	-0.13	-0.11	0.05	0.08	-0.18
PCL-R factor 1 score	—	—	—	0.55**	-0.16	-0.07	0.00	0.08
PCL-R factor 2 score	—	—	—	—	0.09	-0.02	-0.18	-0.15
PCL-R factor interaction	—	—	—	—	—	-0.02	0.16	-0.07
Alcohol abuse/ dependence (lifetime)	—	—	—	—	—	—	0.25*	-0.04
Drug abuse/ dependence (lifetime)	—	—	—	—	—	—	—	0.02

GNG, go/no-go; PCL-R, Psychopathy Checklist-Revised. * $P < 0.05$, ** $P < 0.01$.

Table S3. Peak activations for commission errors vs. correct hits in offender sample

Region	Lobe	t value	x	y	z	BA	Volume, voxels
Anterior cingulate	Limbic	14.49	3	24	33	32	1,808
Inferior frontal gyrus	Frontal	14.04	36	15	-15	47	4,543
Insula	Limbic	13.86	-36	12	-6	13	1,948
Fusiform gyrus	Temporal	7.88	0	-54	57	37	121
Culmen	Cerebellum	7.24	-39	-48	-18	—	20

$n = 96$, $P < 0.00001$ family-wise error.

Table S4. Crime coding scheme

Code	Crime classification
1	Arson: minor (NV)
2	Arson: major
3	Arson: unspecified
4	Assault (V)
5	Battery (V)
6	Burglary/breaking and entering (NV)
7	Causing a disturbance (NV)
8	Crime against the state (V)
9	Driving offense: major (NV)
10	Driving offense: minor (NV)
11	Driving offense: unspecified
12	Drug offense (NV)
13	Forgery (NV)
14	Fraud/embezzlement (NV)
15	Homicide/attempted murder (V)
16	Kidnapping (V)
17	Larceny/theft (NV)
18	Obstruction of justice (NV)
19	Robbery (V)
20	Sex offense: major (V)
21	Sex offense: minor (V)
22	Sex offense: unspecified
23	Unknown/miscellaneous
24	Uttering threats/potential to harm (NV)
25	Violation: escape, parole, probation, technical
26	Weapons (NV)
27	Youth status offense

NV, nonviolent; V, violent. Ambiguous classifications remained unspecified.

Other Supporting Information Files

[Dataset S1 \(XLSX\)](#)