Michael Frank

List of Publications by Year in Descending Order

206 papers	21,932 citations	75 h-index	147 g-index
272 ext. papers	26,150 ext. citations	6.9 avg, IF	7.58 L-index

#	Paper	IF	Citations
206	Thunderstruck: The ACDC model of flexible sequences and rhythms in recurrent neural circuits.. *PLoS Computational Biology*, **2022**, 18, e1009854	5	1
205	Impulse Control Disorders and the Dopamine Dysregulation Syndrome **2022**, 224-240		
204	Likelihood approximation networks (LANs) for fast inference of simulation models in cognitive neuroscience. *ELife*, **2021**, 10,	8.9	5
203	Using Computational Modeling to Capture Schizophrenia-Specific Reinforcement Learning Differences and Their Implications on Patient Classification. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, **2021**,	3.4	2
202	Wave-like dopamine dynamics as a mechanism for spatiotemporal credit assignment. *Cell*, **2021**, 184, 2733-2749.e16	56.2	23
201	Computational phenotyping of brain-behavior dynamics underlying approach-avoidance conflict in major depressive disorder. *PLoS Computational Biology*, **2021**, 17, e1008955	5	0
200	Proof-of-Mechanism Study of the Phosphodiesterase 10 Inhibitor RG7203 in Patients With Schizophrenia and Negative Symptoms. *Biological Psychiatry Global Open Science*, **2021**, 1, 70-77		1
199	Analogous computations in working memory input, output and motor gating: Electrophysiological and computational modeling evidence. *PLoS Computational Biology*, **2021**, 17, e1008971	5	4
198	Honeycomb: a template for reproducible psychophysiological tasks for clinic, laboratory, and home use. *Revista Brasileira De Psiquiatria*, **2021**,	2.6	1
197	The Straw That Broke the Camel's Back: Natural Variations in 17β-Estradiol and COMT-Val158Met Genotype Interact in the Modulation of Model-Free and Model-Based Control. *Frontiers in Behavioral Neuroscience*, **2021**, 15, 658769	3.5	
196	Retention of Value Representations Across Time in People With Schizophrenia and Healthy Control Subjects. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, **2021**, 6, 420-428	3.4	3
195	Advances in the computational understanding of mental illness. *Neuropsychopharmacology*, **2021**, 46, 3-19	8.7	17
194	Social reinforcement learning as a predictor of real-life experiences in individuals with high and low depressive symptomatology. *Psychological Medicine*, **2021**, 51, 408-415	6.9	4
193	All or nothing belief updating in patients with schizophrenia reduces precision and flexibility of beliefs. *Brain*, **2021**, 144, 1013-1029	11.2	7
192	A mosaic of cost-benefit control over cortico-striatal circuitry. *Trends in Cognitive Sciences*, **2021**, 25, 710-721	17	8
191	Computational Psychiatry Needs Time and Context. *Annual Review of Psychology*, **2021**,	26.1	3
190	Simultaneous Hierarchical Bayesian Parameter Estimation for Reinforcement Learning and Drift Diffusion Models: a Tutorial and Links to Neural Data.. *Computational Brain & Behavior*, **2020**, 3, 458-471	2	8

189	Dopamine promotes cognitive effort by biasing the benefits versus costs of cognitive work. *Science* , **2020**, 367, 1362-1366	33.3	84
188	Realizing the Clinical Potential of Computational Psychiatry: Report From the Banbury Center Meeting, February 2019. *Biological Psychiatry*, **2020**, 88, e5-e10	7.9	19
187	Anxiety Impedes Adaptive Social Learning Under Uncertainty. *Psychological Science*, **2020**, 31, 592-603	7.9	15
186	Differential Effects of Psychotic Illness on Directed and Random Exploration. *Computational Psychiatry*, **2020**, 4, 18-39	3.8	2
185	Approach-Avoidance Conflict in Major Depressive Disorder: Congruent Neural Findings in Humans and Nonhuman Primates. *Biological Psychiatry*, **2020**, 87, 399-408	7.9	12
184	Reward-predictive representations generalize across tasks in reinforcement learning. *PLoS Computational Biology*, **2020**, 16, e1008317	5	7
183	Dissecting the impact of depression on decision-making. *Psychological Medicine*, **2020**, 50, 1613-1622	6.9	12
182	Generalizing to generalize: Humans flexibly switch between compositional and conjunctive structures during reinforcement learning. *PLoS Computational Biology*, **2020**, 16, e1007720	5	4
181	Generalizing to generalize: Humans flexibly switch between compositional and conjunctive structures during reinforcement learning **2020**, 16, e1007720		
180	Generalizing to generalize: Humans flexibly switch between compositional and conjunctive structures during reinforcement learning **2020**, 16, e1007720		
179	Generalizing to generalize: Humans flexibly switch between compositional and conjunctive structures during reinforcement learning **2020**, 16, e1007720		
178	Generalizing to generalize: Humans flexibly switch between compositional and conjunctive structures during reinforcement learning **2020**, 16, e1007720		
177	Reward-predictive representations generalize across tasks in reinforcement learning **2020**, 16, e1008317		
176	Reward-predictive representations generalize across tasks in reinforcement learning **2020**, 16, e1008317		
175	Reward-predictive representations generalize across tasks in reinforcement learning **2020**, 16, e1008317		
174	Reward-predictive representations generalize across tasks in reinforcement learning **2020**, 16, e1008317		
173	The importance of standards for sharing of computational models and data. *Computational Brain & Behavior*, **2019**, 2, 229-232	2	2
172	Impaired Expected Value Computations in Schizophrenia Are Associated With a Reduced Ability to Integrate Reward Probability and Magnitude of Recent Outcomes. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, **2019**, 4, 280-290	3.4	8

171	Hierarchical Bayesian inference for concurrent model fitting and comparison for group studies. *PLoS Computational Biology*, **2019**, 15, e1007043	5	20
170	Positive reward prediction errors during decision-making strengthen memory encoding. *Nature Human Behaviour*, **2019**, 3, 719-732	12.8	40
169	The Case for Adaptive Neuromodulation to Treat Severe Intractable Mental Disorders. *Frontiers in Neuroscience*, **2019**, 13, 152	5.1	33
168	Cross-Task Contributions of Frontobasal Ganglia Circuitry in Response Inhibition and Conflict-Induced Slowing. *Cerebral Cortex*, **2019**, 29, 1969-1983	5.1	15
167	Increased conflict-induced slowing, but no differences in conflict-induced positive or negative prediction error learning in patients with schizophrenia. *Neuropsychologia*, **2019**, 123, 131-140	3.2	4
166	Statistical context dictates the relationship between feedback-related EEG signals and learning. *ELife*, **2019**, 8,	8.9	25
165	Author response: Statistical context dictates the relationship between feedback-related EEG signals and learning **2019**,		2
164	Identifying the neural correlates of doorway freezing in Parkinsonʼs disease. *Human Brain Mapping*, **2019**, 40, 2055-2064	5.9	26
163	JetsonLEAP: A framework to measure power on a heterogeneous system-on-a-chip device. *Science of Computer Programming*, **2019**, 173, 21-36	1.1	2
162	Multiple Dissociations Between Comorbid Depression and Anxiety on Reward and Punishment Processing: Evidence From Computationally Informed EEG. *Computational Psychiatry*, **2019**, 3, 1-17	3.8	31
161	Within- and across-trial dynamics of human EEG reveal cooperative interplay between reinforcement learning and working memory. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 2502-2507	11.5	60
160	Impaired Expected Value Computations Coupled With Overreliance on Stimulus-Response Learning in Schizophrenia. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, **2018**, 3, 916-926	3.4	10
159	Modeling Negative Symptoms in Schizophrenia **2018**, 219-246		1
158	Dopamine and Proximity in Motivation and Cognitive Control. *Current Opinion in Behavioral Sciences* , **2018**, 22, 28-34	4	17
157	Intact striatal dopaminergic modulation of reward learning and daily-life reward-oriented behavior in first-degree relatives of individuals with psychotic disorder. *Psychological Medicine*, **2018**, 48, 1909-1914	6.9	12
156	Striatal dopamine release and impaired reinforcement learning in adults with 22q11.2 deletion syndrome. *European Neuropsychopharmacology*, **2018**, 28, 732-742	1.2	6
155	Dopamine D2 agonist affects visuospatial working memory distractor interference depending on individual differences in baseline working memory span. *Cognitive, Affective and Behavioral Neuroscience*, **2018**, 18, 509-520	3.5	13
154	A Control Theoretic Model of Adaptive Learning in Dynamic Environments. *Journal of Cognitive Neuroscience*, **2018**, 30, 1405-1421	3.1	10

153	Intermittent subthalamic nucleus deep brain stimulation induces risk-aversive behavior in human subjects. *ELife*, **2018**, 7,	8.9	6
152	Motivational Deficits in Schizophrenia Are Associated With Reduced Differentiation Between Gain and Loss-Avoidance Feedback in the Striatum. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, **2018**, 3, 239-247	3.4	17
151	Estimating across-trial variability parameters of the Diffusion Decision Model: Expert advice and recommendations. *Journal of Mathematical Psychology*, **2018**, 87, 46-75	1.2	31
150	Frontal network dynamics reflect neurocomputational mechanisms for reducing maladaptive biases in motivated action. *PLoS Biology*, **2018**, 16, e2005979	9.7	15
149	Motivational deficits in schizophrenia relate to abnormalities in cortical learning rate signals. *Cognitive, Affective and Behavioral Neuroscience*, **2018**, 18, 1338-1351	3.5	15
148	Daily-life stress differentially impacts ventral striatal dopaminergic modulation of reward processing in first-degree relatives of individuals with psychosis. *European Neuropsychopharmacology*, **2018**, 28, 1314-1324	1.2	3
147	Compositional clustering in task structure learning. *PLoS Computational Biology*, **2018**, 14, e1006116	5	22
146	Chunking as a rational strategy for lossy data compression in visual working memory. *Psychological Review*, **2018**, 125, 486-511	6.3	44
145	An Integrative Perspective on the Role of Dopamine in Schizophrenia. *Biological Psychiatry*, **2017**, 81, 52-66	7.9	144
144	Impulse control disorders and levodopa-induced dyskinesias in Parkinson's disease: an update. *Lancet Neurology, The*, **2017**, 16, 238-250	24.1	207
143	Striatal dopaminergic modulation of reinforcement learning predicts reward-oriented behavior in daily life. *Biological Psychology*, **2017**, 127, 1-9	3.2	47
142	Interactions Among Working Memory, Reinforcement Learning, and Effort in Value-Based Choice: A New Paradigm and Selective Deficits in Schizophrenia. *Biological Psychiatry*, **2017**, 82, 431-439	7.9	59
141	Working Memory Load Strengthens Reward Prediction Errors. *Journal of Neuroscience*, **2017**, 37, 4332-4342	6.2	53
140	The drift diffusion model as the choice rule in reinforcement learning. *Psychonomic Bulletin and Review*, **2017**, 24, 1234-1251	4.1	94
139	Theory-Based Computational Psychiatry. *Biological Psychiatry*, **2017**, 82, 382-384	7.9	20
138	Stimulus discriminability may bias value-based probabilistic learning. *PLoS ONE*, **2017**, 12, e0176205	3.7	6
137	Catecholaminergic challenge uncovers distinct Pavlovian and instrumental mechanisms of motivated (in)action. *ELife*, **2017**, 6,	8.9	44
136	Biases in the Explore-Exploit Tradeoff in Addictions: The Role of Avoidance of Uncertainty. *Neuropsychopharmacology*, **2016**, 41, 940-8	8.7	25

135	Motor symptoms in Parkinson's disease: A unified framework. *Neuroscience and Biobehavioral Reviews*, **2016**, 68, 727-740	9	120
134	Variability in Dopamine Genes Dissociates Model-Based and Model-Free Reinforcement Learning. *Journal of Neuroscience*, **2016**, 36, 1211-22	6.6	77
133	Charting the landscape of priority problems in psychiatry, part 2: pathogenesis and aetiology. *Lancet Psychiatry,the*, **2016**, 3, 84-90	23.3	37
132	Charting the landscape of priority problems in psychiatry, part 1: classification and diagnosis. *Lancet Psychiatry,the*, **2016**, 3, 77-83	23.3	107
131	A Neural Correlate of Strategic Exploration at the Onset of Adolescence. *Journal of Cognitive Neuroscience*, **2016**, 28, 199-209	3.1	9
130	Interrelations between cognitive dysfunction and motor symptoms of Parkinson's disease: behavioral and neural studies. *Reviews in the Neurosciences*, **2016**, 27, 535-48	4.7	16
129	Computational psychiatry as a bridge from neuroscience to clinical applications. *Nature Neuroscience*, **2016**, 19, 404-13	25.5	439
128	Surprise! Dopamine signals mix action, value and error. *Nature Neuroscience*, **2016**, 19, 3-5	25.5	22
127	A Computational Cognitive Biomarker for Early-Stage Huntington's Disease. *PLoS ONE*, **2016**, 11, e0148409	3.7	27
126	Reduction of Pavlovian Bias in Schizophrenia: Enhanced Effects in Clozapine-Administered Patients. *PLoS ONE*, **2016**, 11, e0152781	3.7	10
125	Taming the beast: extracting generalizable knowledge from computational models of cognition. *Current Opinion in Behavioral Sciences*, **2016**, 11, 49-54	4	33
124	Probability and magnitude evaluation in schizophrenia. *Schizophrenia Research: Cognition*, **2016**, 5, 41-46	2.8	9
123	Probabilistic Reinforcement Learning in Patients With Schizophrenia: Relationships to Anhedonia and Avolition. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, **2016**, 1, 460-473	3.4	60
122	Role of Prefrontal Cortex in Learning and Generalizing Hierarchical Rules in 8-Month-Old Infants. *Journal of Neuroscience*, **2016**, 36, 10314-10322	6.6	40
121	Effort cost computation in schizophrenia: a commentary on the recent literature. *Biological Psychiatry*, **2015**, 78, 747-53	7.9	68
120	8-month-old infants spontaneously learn and generalize hierarchical rules. *Psychological Science*, **2015**, 26, 805-15	7.9	31
119	Spontaneous eye blink rate predicts learning from negative, but not positive, outcomes. *Neuropsychologia*, **2015**, 71, 126-32	3.2	43
118	Linking Across Levels of Computation in Model-Based Cognitive Neuroscience **2015**, 159-177		5

117	Feedback-driven trial-by-trial learning in autism spectrum disorders. *American Journal of Psychiatry*, **2015**, 172, 173-81	11.9	28
116	Model-Based Cognitive Neuroscience Approaches to Computational Psychiatry: Clustering and Classification. *Clinical Psychological Science*, **2015**, 3, 378-399	6	96
115	How cognitive theory guides neuroscience. *Cognition*, **2015**, 135, 14-20	3.5	27
114	Dopaminergic basis for impairments in functional connectivity across subdivisions of the striatum in Parkinson's disease. *Human Brain Mapping*, **2015**, 36, 1278-91	5.9	54
113	Dopamine, locus of control, and the exploration-exploitation tradeoff. *Neuropsychopharmacology*, **2015**, 40, 454-62	8.7	50
112	Interactionist Neuroscience. *Neuron*, **2015**, 88, 855-860	13.9	19
111	Striatal D1 and D2 signaling differentially predict learning from positive and negative outcomes. *NeuroImage*, **2015**, 109, 95-101	7.9	102
110	fMRI and EEG predictors of dynamic decision parameters during human reinforcement learning. *Journal of Neuroscience*, **2015**, 35, 485-94	6.6	144
109	A cholinergic feedback circuit to regulate striatal population uncertainty and optimize reinforcement learning. *ELife*, **2015**, 4,	8.9	42
108	Differential, but not opponent, effects of L -DOPA and citalopram on action learning with reward and punishment. *Psychopharmacology*, **2014**, 231, 955-66	4.7	63
107	Reduced susceptibility to confirmation bias in schizophrenia. *Cognitive, Affective and Behavioral Neuroscience*, **2014**, 14, 715-28	3.5	20
106	Human EEG uncovers latent generalizable rule structure during learning. *Journal of Neuroscience*, **2014**, 34, 4677-85	6.6	57
105	Conflict acts as an implicit cost in reinforcement learning. *Nature Communications*, **2014**, 5, 5394	17.4	55
104	The subthalamic nucleus contributes to post-error slowing. *Journal of Cognitive Neuroscience*, **2014**, 26, 2637-44	3.1	32
103	A reinforcement learning mechanism responsible for the valuation of free choice. *Neuron*, **2014**, 83, 551-7	13.9	57
102	Working memory contributions to reinforcement learning impairments in schizophrenia. *Journal of Neuroscience*, **2014**, 34, 13747-56	6.6	126
101	Frontal theta as a mechanism for cognitive control. *Trends in Cognitive Sciences*, **2014**, 18, 414-21	14	1024
100	Cognitive correlates of psychosis in patients with Parkinson's disease. *Cognitive Neuropsychiatry*, **2014**, 19, 381-98	2	10

99	Eye tracking and pupillometry are indicators of dissociable latent decision processes. *Journal of Experimental Psychology: General*, **2014**, 143, 1476-88	4.7	139
98	Opponent actor learning (OpAL): modeling interactive effects of striatal dopamine on reinforcement learning and choice incentive. *Psychological Review*, **2014**, 121, 337-66	6.3	234
97	Corticostriatal output gating during selection from working memory. *Neuron*, **2014**, 81, 930-42	13.9	107
96	A computational model of inhibitory control in frontal cortex and basal ganglia. *Psychological Review*, **2013**, 120, 329-55	6.3	239
95	Freezing of gait in Parkinson's disease is associated with functional decoupling between the cognitive control network and the basal ganglia. *Brain*, **2013**, 136, 3671-81	11.2	170
94	Common medial frontal mechanisms of adaptive control in humans and rodents. *Nature Neuroscience*, **2013**, 16, 1888-1895	25.5	194
93	Hypothetical decision making in schizophrenia: the role of expected value computation and "irrational" biases. *Psychiatry Research*, **2013**, 209, 142-9	9.9	35
92	Stop! Stay tuned for more information. *Experimental Neurology*, **2013**, 247, 289-91	5.7	11
91	Negative symptoms of schizophrenia are associated with abnormal effort-cost computations. *Biological Psychiatry*, **2013**, 74, 130-6	7.9	273
90	Frontal theta overrides pavlovian learning biases. *Journal of Neuroscience*, **2013**, 33, 8541-8	6.6	126
89	Stress modulates reinforcement learning in younger and older adults. *Psychology and Aging*, **2013**, 28, 35-46	3.6	70
88	Cognitive control over learning: creating, clustering, and generalizing task-set structure. *Psychological Review*, **2013**, 120, 190-229	6.3	243
87	Pleasurable music affects reinforcement learning according to the listener. *Frontiers in Psychology*, **2013**, 4, 541	3.4	32
86	Acute stress selectively reduces reward sensitivity. *Frontiers in Human Neuroscience*, **2013**, 7, 133	3.3	70
85	HDDM: Hierarchical Bayesian estimation of the Drift-Diffusion Model in Python. *Frontiers in Neuroinformatics*, **2013**, 7, 14	3.9	399
84	The role of frontostriatal impairment in freezing of gait in Parkinson's disease. *Frontiers in Systems Neuroscience*, **2013**, 7, 61	3.5	62
83	How much of reinforcement learning is working memory, not reinforcement learning? A behavioral, computational, and neurogenetic analysis. *European Journal of Neuroscience*, **2012**, 35, 1024-35	3.5	213
82	Roles of D1-like dopamine receptors in the nucleus accumbens and dorsolateral striatum in conditioned avoidance responses. *Psychopharmacology*, **2012**, 219, 159-69	4.7	34

81	Negative symptoms and the failure to represent the expected reward value of actions: behavioral and computational modeling evidence. *Archives of General Psychiatry*, **2012**, 69, 129-38		216
80	A role for dopamine-mediated learning in the pathophysiology and treatment of Parkinson's disease. *Cell Reports*, **2012**, 2, 1747-61	10.6	52
79	Sensitivity to reward and punishment in major depressive disorder: effects of rumination and of single versus multiple experiences. *Cognition and Emotion*, **2012**, 26, 1475-85	2.3	28
78	Rostrolateral prefrontal cortex and individual differences in uncertainty-driven exploration. *Neuron* , **2012**, 73, 595-607	13.9	169
77	CNTRICS imaging biomarkers final task selection: Long-term memory and reinforcement learning. *Schizophrenia Bulletin*, **2012**, 38, 62-72	1.3	18
76	Mechanisms of hierarchical reinforcement learning in corticostriatal circuits 1: computational analysis. *Cerebral Cortex*, **2012**, 22, 509-26	5.1	193
75	Frontal theta reflects uncertainty and unexpectedness during exploration and exploitation. *Cerebral Cortex*, **2012**, 22, 2575-86	5.1	132
74	Reinforcement-based decision making in corticostriatal circuits: mutual constraints by neurocomputational and diffusion models. *Neural Computation*, **2012**, 24, 1186-229	2.9	132
73	Mechanisms of hierarchical reinforcement learning in cortico-striatal circuits 2: evidence from fMRI. *Cerebral Cortex*, **2012**, 22, 527-36	5.1	136
72	How preparation changes the need for top-down control of the basal ganglia when inhibiting premature actions. *Journal of Neuroscience*, **2012**, 32, 10870-8	6.6	98
71	Deficits in positive reinforcement learning and uncertainty-driven exploration are associated with distinct aspects of negative symptoms in schizophrenia. *Biological Psychiatry*, **2011**, 69, 424-31	7.9	164
70	Optimizing vs. matching: response strategy in a probabilistic learning task is associated with negative symptoms of schizophrenia. *Schizophrenia Research*, **2011**, 127, 215-22	3.6	14
69	Subthalamic nucleus stimulation reverses mediofrontal influence over decision threshold. *Nature Neuroscience*, **2011**, 14, 1462-7	25.5	397
68	Larger Error Signals in Major Depression are Associated with Better Avoidance Learning. *Frontiers in Psychology*, **2011**, 2, 331	3.4	49
67	Altered probabilistic learning and response biases in schizophrenia: behavioral evidence and neurocomputational modeling. *Neuropsychology*, **2011**, 25, 86-97	3.8	94
66	From reinforcement learning models to psychiatric and neurological disorders. *Nature Neuroscience* , **2011**, 14, 154-62	25.5	516
65	Computational models of motivated action selection in corticostriatal circuits. *Current Opinion in Neurobiology*, **2011**, 21, 381-6	7.6	134
64	Probabilistic reinforcement learning in adults with autism spectrum disorders. *Autism Research*, **2011**, 4, 109-20	5.1	52

63	Transitive inference in adults with autism spectrum disorders. *Cognitive, Affective and Behavioral Neuroscience*, **2011**, 11, 437-49	3.5	16
62	Dopaminergic genes predict individual differences in susceptibility to confirmation bias. *Journal of Neuroscience*, **2011**, 31, 6188-98	6.6	132
61	Neurogenetics and pharmacology of learning, motivation, and cognition. *Neuropsychopharmacology* , **2011**, 36, 133-52	8.7	132
60	Social stress reactivity alters reward and punishment learning. *Social Cognitive and Affective Neuroscience*, **2011**, 6, 311-20	4	62
59	Patients with schizophrenia demonstrate inconsistent preference judgments for affective and nonaffective stimuli. *Schizophrenia Bulletin*, **2011**, 37, 1295-304	1.3	43
58	Approach and avoidance learning in patients with major depression and healthy controls: relation to anhedonia. *Psychological Medicine*, **2010**, 40, 433-40	6.9	97
57	Dissociable responses to punishment in distinct striatal regions during reversal learning. *NeuroImage*, **2010**, 51, 1459-67	7.9	55
56	Frontal theta links prediction errors to behavioral adaptation in reinforcement learning. *NeuroImage*, **2010**, 49, 3198-209	7.9	280
55	Neurocomputational models of motor and cognitive deficits in Parkinson$s disease. *Progress in Brain Research*, **2010**, 183, 275-97	2.9	74
54	Computational models of reinforcement learning: the role of dopamine as a reward signal. *Cognitive Neurodynamics*, **2010**, 4, 91-105	4.2	42
53	Altered cingulate sub-region activation accounts for task-related dissociation in ERN amplitude as a function of obsessive-compulsive symptoms. *Neuropsychologia*, **2010**, 48, 2098-109	3.2	37
52	Seeing is believing: trustworthiness as a dynamic belief. *Cognitive Psychology*, **2010**, 61, 87-105	3.1	195
51	Neural mechanisms of acquired phasic dopamine responses in learning. *Neuroscience and Biobehavioral Reviews*, **2010**, 34, 701-20	9	83
50	The basal ganglia in reward and decision making **2009**, 399-425		21
49	Striatal dopamine predicts outcome-specific reversal learning and its sensitivity to dopaminergic drug administration. *Journal of Neuroscience*, **2009**, 29, 1538-43	6.6	273
48	CNTRICS final task selection: long-term memory. *Schizophrenia Bulletin*, **2009**, 35, 197-212	1.3	44
47	Pupillometric and behavioral markers of a developmental shift in the temporal dynamics of cognitive control. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 5529-33	11.5	188
46	Do substantia nigra dopaminergic neurons differentiate between reward and punishment?. *Journal of Molecular Cell Biology*, **2009**, 1, 15-6	6.3	10

45	Task-related dissociation in ERN amplitude as a function of obsessive-compulsive symptoms. *Neuropsychologia*, **2009**, 47, 1978-87	3.2	87
44	Instructional control of reinforcement learning: a behavioral and neurocomputational investigation. *Brain Research*, **2009**, 1299, 74-94	3.7	182
43	Single dose of a dopamine agonist impairs reinforcement learning in humans: evidence from event-related potentials and computational modeling of striatal-cortical function. *Human Brain Mapping*, **2009**, 30, 1963-76	5.9	103
42	A neurocomputational account of catalepsy sensitization induced by D2 receptor blockade in rats: context dependency, extinction, and renewal. *Psychopharmacology*, **2009**, 204, 265-77	4.7	38
41	Prefrontal and striatal dopaminergic genes predict individual differences in exploration and exploitation. *Nature Neuroscience*, **2009**, 12, 1062-8	25.5	331
40	Slave to the striatal habit (Commentary on Tricomi et al.). *European Journal of Neuroscience*, **2009**, 29, 2223-4	3.5	3
39	Multiple Systems in Decision Making: A Neurocomputational Perspective. *Current Directions in Psychological Science*, **2009**, 18, 73-77	6.5	61
38	Neurocomputational models of basal ganglia function in learning, memory and choice. *Behavioural Brain Research*, **2009**, 199, 141-56	3.4	159
37	Genetic contributions to avoidance-based decisions: striatal D2 receptor polymorphisms. *Neuroscience*, **2009**, 164, 131-40	3.9	106
36	A dopaminergic basis for working memory, learning and attentional shifting in Parkinsonism. *Neuropsychologia*, **2008**, 46, 3144-56	3.2	136
35	A role for dopamine in temporal decision making and reward maximization in parkinsonism. *Journal of Neuroscience*, **2008**, 28, 12294-304	6.6	98
34	Schizophrenia: a computational reinforcement learning perspective. *Schizophrenia Bulletin*, **2008**, 34, 1008-11	1.3	30
33	Learning to avoid in older age. *Psychology and Aging*, **2008**, 23, 392-8	3.6	97
32	Single dose of a dopamine agonist impairs reinforcement learning in humans: behavioral evidence from a laboratory-based measure of reward responsiveness. *Psychopharmacology*, **2008**, 196, 221-32	4.7	183
31	Understanding decision-making deficits in neurological conditions: insights from models of natural action selection. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2007**, 362, 1641-54	5.8	128
30	Selective reinforcement learning deficits in schizophrenia support predictions from computational models of striatal-cortical dysfunction. *Biological Psychiatry*, **2007**, 62, 756-64	7.9	245
29	Triangulating a cognitive control network using diffusion-weighted magnetic resonance imaging (MRI) and functional MRI. *Journal of Neuroscience*, **2007**, 27, 3743-52	6.6	738
28	Cross-task individual differences in error processing: neural, electrophysiological, and genetic components. *Cognitive, Affective and Behavioral Neuroscience*, **2007**, 7, 297-308	3.5	64

27	Genetic triple dissociation reveals multiple roles for dopamine in reinforcement learning. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 16311-6	11.5	492
26	Towards an executive without a homunculus: computational models of the prefrontal cortex/basal ganglia system. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2007**, 362, 1601-13	5.8	285
25	PVLV: the primary value and learned value Pavlovian learning algorithm. *Behavioral Neuroscience*, **2007**, 121, 31-49	2.1	81
24	Testing computational models of dopamine and noradrenaline dysfunction in attention deficit/hyperactivity disorder. *Neuropsychopharmacology*, **2007**, 32, 1583-99	8.7	161
23	Hold your horses: impulsivity, deep brain stimulation, and medication in parkinsonism. *Science*, **2007** , 318, 1309-12	33.3	791
22	When memory fails, intuition reigns: midazolam enhances implicit inference in humans. *Psychological Science*, **2006**, 17, 700-7	7.9	116
21	Anatomy of a decision: striato-orbitofrontal interactions in reinforcement learning, decision making, and reversal. *Psychological Review*, **2006**, 113, 300-326	6.3	442
20	Banishing the homunculus: making working memory work. *Neuroscience*, **2006**, 139, 105-18	3.9	230
19	A mechanistic account of striatal dopamine function in human cognition: psychopharmacological studies with cabergoline and haloperidol. *Behavioral Neuroscience*, **2006**, 120, 497-517	2.1	337
18	Hold your horses: a dynamic computational role for the subthalamic nucleus in decision making. *Neural Networks*, **2006**, 19, 1120-36	9.1	486
17	Making working memory work: a computational model of learning in the prefrontal cortex and basal ganglia. *Neural Computation*, **2006**, 18, 283-328	2.9	673
16	Error-related negativity predicts reinforcement learning and conflict biases. *Neuron*, **2005**, 47, 495-501	13.9	319
15	Dynamic dopamine modulation in the basal ganglia: a neurocomputational account of cognitive deficits in medicated and nonmedicated Parkinsonism. *Journal of Cognitive Neuroscience*, **2005**, 17, 51-72	3.1	685
14	When logic fails: implicit transitive inference in humans. *Memory and Cognition*, **2005**, 33, 742-50	2.2	89
13	By carrot or by stick: cognitive reinforcement learning in parkinsonism. *Science*, **2004**, 306, 1940-3	33.3	1442
12	Hippocampus, cortex, and basal ganglia: insights from computational models of complementary learning systems. *Neurobiology of Learning and Memory*, **2004**, 82, 253-67	3.1	142
11	Transitivity, flexibility, conjunctive representations, and the hippocampus. II. A computational analysis. *Hippocampus*, **2003**, 13, 341-54	3.5	128
10	Interactions between frontal cortex and basal ganglia in working memory: a computational model. *Cognitive, Affective and Behavioral Neuroscience*, **2001**, 1, 137-60	3.5	560

9	Non-conventional epimerisation and functionalisation of quinic acid and shikimic acid methyl esters. *Carbohydrate Research*, **1998**, 313, 49-53	2.9	10
8	Toward an executive without a homunculus: computational models of the prefrontal cortex/basal ganglia system239-263		1
7	Likelihood Approximation Networks (LANs) for Fast Inference of Simulation Models in Cognitive Neuroscience		2
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