Yael Niv

List of Publications by Year
in descending order

97 papers	13,809 citations	44042 48 h-index	38368 95 g-index
124 all docs	124 docs citations	124 times ranked	9196 citing authors

#	Article	IF	Citations
1	Uncertainty-based competition between prefrontal and dorsolateral striatal systems for behavioral control. Nature Neuroscience, 2005, 8, 1704-1711.	7.1	2,108
2	Tonic dopamine: opportunity costs and the control of response vigor. Psychopharmacology, 2007, 191, 507-520.	1.5	969
3	Reinforcement learning: The Good, The Bad and The Ugly. Current Opinion in Neurobiology, 2008, 18, 185-196.	2.0	803
4	Orbitofrontal Cortex as a Cognitive Map of Task Space. Neuron, 2014, 81, 267-279.	3.8	709
5	Reinforcement learning in the brain. Journal of Mathematical Psychology, 2009, 53, 139-154.	1.0	528
6	Hierarchically organized behavior and its neural foundations: A reinforcement learning perspective. Cognition, 2009, 113, 262-280.	1.1	474
7	From Fear to Safety and Back: Reversal of Fear in the Human Brain. Journal of Neuroscience, 2008, 28, 11517-11525.	1.7	420
8	Human Orbitofrontal Cortex Represents a Cognitive Map of State Space. Neuron, 2016, 91, 1402-1412.	3.8	419
9	The effects of neural gain on attention and learning. Nature Neuroscience, 2013, 16, 1146-1153.	7.1	362
10	Neural Prediction Errors Reveal a Risk-Sensitive Reinforcement-Learning Process in the Human Brain. Journal of Neuroscience, 2012, 32, 551-562.	1.7	293
11	Dialogues on prediction errors. Trends in Cognitive Sciences, 2008, 12, 265-272.	4.0	286
12	Reinforcement Learning in Multidimensional Environments Relies on Attention Mechanisms. Journal of Neuroscience, 2015, 35, 8145-8157.	1.7	284
13	Context, learning, and extinction.. Psychological Review, 2010, 117, 197-209.	2.7	275
14	A normative perspective on motivation. Trends in Cognitive Sciences, 2006, 10, 375-381.	4.0	268
15	Learning latent structure: carving nature at its joints. Current Opinion in Neurobiology, 2010, 20, 251-256.	2.0	242
16	Dynamic Interaction between Reinforcement Learning and Attention in Multidimensional Environments. Neuron, 2017, 93, 451-463.	3.8	229
17	Rethinking Extinction. Neuron, 2015, 88, 47-63.	3.8	227
18	Expectancy-related changes in firing of dopamine neurons depend on orbitofrontal cortex. Nature Neuroscience, 2011, 14, 1590-1597.	7.1	224

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19	Dopamine transients are sufficient and necessary for acquisition of model-based associations. Nature Neuroscience, 2017, 20, 735-742.	7.1	222
20	Mood as Representation of Momentum. Trends in Cognitive Sciences, 2016, 20, 15-24.	4.0	220
21	Ventral Striatum and Orbitofrontal Cortex Are Both Required for Model-Based, But Not Model-Free, Reinforcement Learning. Journal of Neuroscience, 2011, 31, 2700-2705.	1.7	201
22	Learning task-state representations. Nature Neuroscience, 2019, 22, 1544-1553.	7.1	200
23	Computational approaches to fMRI analysis. Nature Neuroscience, 2017, 20, 304-313.	7.1	185
24	The impact of orbitofrontal dysfunction on cocaine addiction. Nature Neuroscience, 2012, 15, 358-366.	7.1	179
25	Sequential replay of nonspatial task states in the human hippocampus. Science, 2019, 364, .	6.0	178
26	A Neural Signature of Hierarchical Reinforcement Learning. Neuron, 2011, 71, 370-379.	3.8	155
27	Cost, Benefit, Tonic, Phasic: What Do Response Rates Tell Us about Dopamine and Motivation?. Annals of the New York Academy of Sciences, 2007, 1104, 357-376.	1.8	143
28	Interaction between emotional state and learning underlies mood instability. Nature Communications, 2015, 6, 6149.	5.8	125
29	Model-based predictions for dopamine. Current Opinion in Neurobiology, 2018, 49, 1-7.	2.0	119
30	Inferring Relevance in a Changing World. Frontiers in Human Neuroscience, 2011, 5, 189.	1.0	108
31	Gradual extinction prevents the return of fear: implications for the discovery of state. Frontiers in Behavioral Neuroscience, 2013, 7, 164.	1.0	105
32	Discovering latent causes in reinforcement learning. Current Opinion in Behavioral Sciences, 2015, 5, 43-50.	2.0	104
33	Exploring a latent cause theory of classical conditioning. Learning and Behavior, 2012, 40, 255-268.	0.5	102
34	Neural and Psychological Maturation of Decision-making in Adolescence and Young Adulthood. Journal of Cognitive Neuroscience, 2013, 25, 1807-1823.	1.1	98
35	Temporal Specificity of Reward Prediction Errors Signaled by Putative Dopamine Neurons in Rat VTA Depends on Ventral Striatum. Neuron, 2016, 91, 182-193.	3.8	93
36	The computational nature of memory modification. ELife, 2017, 6, .	2.8	92

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37	Optimal Behavioral Hierarchy. PLoS Computational Biology, 2014, 10, e1003779.	1.5	91
38	Lateral Hypothalamic GABAergic Neurons Encode Reward Predictions that Are Relayed to the Ventral Tegmental Area to Regulate Learning. Current Biology, 2017, 27, 2089-2100.e5.	1.8	90
39	Does mental context drift or shift?. Current Opinion in Behavioral Sciences, 2017, 17, 141-146.	2.0	78
40	A Probability Distribution over Latent Causes, in the Orbitofrontal Cortex. Journal of Neuroscience, 2016, 36, 7817-7828.	1.7	77
41	Dissociable effects of surprising rewards on learning and memory.. Journal of Experimental Psychology: Learning Memory and Cognition, 2018, 44, 1430-1443.	0.7	77
42	Choice values. Nature Neuroscience, 2006, 9, 987-988.	7.1	76
43	An Integrated Model of Action Selection: Distinct Modes of Cortical Control of Striatal Decision Making. Annual Review of Psychology, 2019, 70, 53-76.	9.9	76
44	Is Model Fitting Necessary for Model-Based fMRI?. PLoS Computational Biology, 2015, 11, e1004237.	1.5	74
45	Hierarchical Learning Induces Two Simultaneous, But Separable, Prediction Errors in Human Basal Ganglia. Journal of Neuroscience, 2013, 33, 5797-5805.	1.7	72
46	Statistical Computations Underlying the Dynamics of Memory Updating. PLoS Computational Biology, 2014, 10, e1003939.	1.5	70
47	Novelty and Inductive Generalization in Human Reinforcement Learning. Topics in Cognitive Science, 2015, 7, 391-415.	1.1	64
48	Holistic Reinforcement Learning: The Role of Structure and Attention. Trends in Cognitive Sciences, 2019, 23, 278-292.	4.0	64
49	The case against economic values in the orbitofrontal cortex (or anywhere else in the brain).. Behavioral Neuroscience, 2021, 135, 192-201.	0.6	64
50	Rat Orbitofrontal Ensemble Activity Contains Multiplexed but Dissociable Representations of Value and Task Structure in an Odor Sequence Task. Current Biology, 2019, 29, 897-907.e3.	1.8	62
51	The primacy of behavioral research for understanding the brain.. Behavioral Neuroscience, 2021, 135, 601-609.	0.6	61
52	Explaining compound generalization in associative and causal learning through rational principles of dimensional generalization.. Psychological Review, 2014, 121, 526-558.	2.7	60
53	Reward prediction errors create event boundaries in memory. Cognition, 2020, 203, 104269.	1.1	55
54	Dopamine transients do not act as model-free prediction errors during associative learning. Nature Communications, 2020, 11, 106.	5.8	44

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55	Complementary Task Structure Representations in Hippocampus and Orbitofrontal Cortex during an Odor Sequence Task. Current Biology, 2019, 29, 3402-3409.e3.	1.8	42
56	The Two Cultures of Computational Psychiatry. JAMA Psychiatry, 2019, 76, 563.	6.0	40
57	Signed and unsigned reward prediction errors dynamically enhance learning and memory. ELife, 2021, 10, .	2.8	40
58	Do You See the Forest or the Tree? Neural Gain and Breadth Versus Focus in Perceptual Processing. Psychological Science, 2016, 27, 1632-1643.	1.8	39
59	Model-based decision making and model-free learning. Current Biology, 2020, 30, R860-R865.	1.8	39
60	Perceptual estimation obeys Occam's razor. Frontiers in Psychology, 2013, 4, 623.	1.1	35
61	Reinforcement learning with Marr. Current Opinion in Behavioral Sciences, 2016, 11, 67-73.	2.0	34
62	Representational structure or task structure? Bias in neural representational similarity analysis and a Bayesian method for reducing bias. PLoS Computational Biology, 2019, 15, e1006299.	1.5	33
63	A State Representation for Reinforcement Learning and Decision-Making in the Orbitofrontal Cortex. , 2018, , 259-278.		32
64	Depressive symptoms bias the prediction-error enhancement of memory towards negative events in reinforcement learning. Psychopharmacology, 2019, 236, 2425-2435.	1.5	29
65	Human Representation Learning. Annual Review of Neuroscience, 2021, 44, 253-273.	5.0	28
66	A model of mood as integrated advantage.. Psychological Review, 2022, 129, 513-541.	2.7	25
67	On the value of information and other rewards. Nature Neuroscience, 2011, 14, 1095-1097.	7.1	21
68	The effects of aging on the interaction between reinforcement learning and attention.. Psychology and Aging, 2016, 31, 747-757.	1.4	21
69	Parkinson's Disease: Fighting the Will?: Figure 1.. Journal of Neuroscience, 2007, 27, 11777-11779.	1.7	19
70	Dopamine ramps up. Nature, 2013, 500, 533-535.	13.7	19
71	How Did the Chicken Cross the Road? With Her Striatal Cholinergic Interneurons, Of Course. Neuron, 2013, 79, 3-6.	3.8	18
72	Value-free reinforcement learning: policy optimization as a minimal model of operant behavior. Current Opinion in Behavioral Sciences, 2021, 41, 114-121.	2.0	18

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73	The State of the Orbitofrontal Cortex. Neuron, 2015, 88, 1075-1077.	3.8	17
74	Neural Signatures of Prediction Errors in a Decision-Making Task Are Modulated by Action Execution Failures. Current Biology, 2019, 29, 1606-1613.e5.	1.8	15
75	The effects of motivation on response rate: A hidden semi-Markov model analysis of behavioral dynamics. Journal of Neuroscience Methods, 2011, 201, 251-261.	1.3	14
76	State representation in mental illness. Current Opinion in Neurobiology, 2019, 55, 160-166.	2.0	13
77	Biased evaluations emerge from inferring hidden causes. Nature Human Behaviour, 2021, 5, 1180-1189.	6.2	12
78	DYT1 dystonia increases risk taking in humans. ELife, 2016, 5, .	2.8	12
79	Intact Reinforcement Learning But Impaired Attentional Control During Multidimensional Probabilistic Learning in Older Adults. Journal of Neuroscience, 2020, 40, 1084-1096.	1.7	10
80	Uncovering the â€˜stateâ€™: Tracing the hidden state representations that structure learning and decision-making. Behavioural Processes, 2019, 167, 103891.	0.5	9
81	Rumination Derails Reinforcement Learning With Possible Implications for Ineffective Behavior. Clinical Psychological Science, 2022, 10, 714-733.	2.4	9
82	Causal Model Comparison Shows That Human Representation Learning Is Not Bayesian. Cold Spring Harbor Symposia on Quantitative Biology, 2014, 79, 161-168.	2.0	8
83	Reconsolidation-Extinction Interactions in Fear Memory Attenuation: The Role of Inter-Trial Interval Variability. Frontiers in Behavioral Neuroscience, 2017, 11, 2.	1.0	8
84	Amplified selectivity in cognitive processing implements the neural gain model of norepinephrine function. Behavioral and Brain Sciences, 2016, 39, e206.	0.4	7
85	A pupillary index of susceptibility to decision biases. Nature Human Behaviour, 2021, 5, 653-662.	6.2	6
86	A free-choice premium in the basal ganglia. Trends in Cognitive Sciences, 2015, 19, 4-5.	4.0	5
87	Orbitofrontal cortex and learning predictions of state transitions.. Behavioral Neuroscience, 2021, 135, 487-497.	0.6	5
88	How to divide and conquer the world, one step at a time. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2929-2930.	3.3	4
89	The Psychometric Properties of the Pavlovian Instrumental Transfer Task in an Online Adult Sample. Biological Psychiatry, 2021, 89, S132.	0.7	4
90	A practical guide for studying human behavior in the lab. Behavior Research Methods, 2022, , 1.	2.3	3

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91	A recurring reproduction error in the administration of the Generalized Anxiety Disorder scale. Lancet Psychiatry,the, 2021, 8, 180-181.	3.7	2
92	Information Seeking on the Horizons Task Does Not Predict Anxious Symptomatology. Biological Psychiatry, 2021, 89, S217-S218.	0.7	2
93	Minimal cross-trial generalization in learning the representation of an odor-guided choice task. PLoS Computational Biology, 2022, 18, e1009897.	1.5	2
94	A Transdiagnostic Association Between Mood Symptoms and Mood-Learning Interaction. Biological Psychiatry, 2021, 89, S214-S215.	0.7	0
95	Feature-based reward learning biases dimensional attention. Journal of Vision, 2017, 17, 1297.	0.1	0
96	Should you trust your RSA result? A Bayesian method for reducing bias in neural representational similarity analysis.. Journal of Vision, 2017, 17, 571.	0.1	0
97	Predicting trial-by-trial attention dynamics during human reinforcement learning. Journal of Vision, 2017, 17, 1098.	0.1	0