Thomas L Griffiths

List of Publications by Year in Descending Order

112 papers	10,002 citations	37 h-index	99 g-index
125 ext. papers	12,320 ext. citations	7 avg, IF	6.85 L-index

#	Paper	IF	Citations
112	Leveraging artificial intelligence to improve peopleTs planning strategies.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119, e2117432119	11.5	0
111	Globally Inaccurate Stereotypes Can Result From Locally Adaptive Exploration.. *Psychological Science*, **2022**, 9567976211045929	7.9	1
110	Complex cognitive algorithms preserved by selective social learning in experimental populations.. *Science*, **2022**, 376, 95-98	33.3	2
109	Deep models of superficial face judgments.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119, e2115228119	11.5	0
108	Clustering and the efficient use of cognitive resources. *Journal of Mathematical Psychology*, **2022**, 109, 102675	1.2	0
107	Shades of confusion: Lexical uncertainty modulates ad hoc coordination in an interactive communication task. *Cognition*, **2022**, 225, 105152	3.5	2
106	Memory transmission in small groups and large networks: An empirical study. *Psychonomic Bulletin and Review*, **2021**, 1	4.1	1
105	Human biases limit cumulative innovation. *Proceedings of the Royal Society B: Biological Sciences*, **2021**, 288, 20202752	4.4	6
104	From convolutional neural networks to models of higher-level cognition (and back again). *Annals of the New York Academy of Sciences*, **2021**,	6.5	4
103	Fixation patterns in simple choice reflect optimal information sampling. *PLoS Computational Biology*, **2021**, 17, e1008863	5	18
102	Evaluating models of robust word recognition with serial reproduction. *Cognition*, **2021**, 210, 104553	3.5	1
101	Integrating explanation and prediction in computational social science. *Nature*, **2021**, 595, 181-188	50.4	29
100	Using large-scale experiments and machine learning to discover theories of human decision-making. *Science*, **2021**, 372, 1209-1214	33.3	13
99	The Challenges of Large-Scale, Web-Based Language Datasets: Word Length and Predictability Revisited. *Cognitive Science*, **2021**, 45, e12983	2.2	1
98	Bayesian collective learning emerges from heuristic social learning. *Cognition*, **2021**, 212, 104469	3.5	7
97	A rational model of the Dunning-Kruger effect supports insensitivity to evidence in low performers. *Nature Human Behaviour*, **2021**, 5, 756-763	12.8	15
96	Serial reproduction reveals the geometry of visuospatial representations. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	3

95	Intuitions about magic track the development of intuitive physics. *Cognition*, **2021**, 214, 104762	3.5	2
94	A rational model of peopleTs inferences about othersTpreferences based on response times. *Cognition*, **2021**, 217, 104885	3.5	2
93	A rational reinterpretation of dual-process theories. *Cognition*, **2021**, 217, 104881	3.5	2
92	Assessing Mathematics Misunderstandings via Bayesian Inverse Planning. *Cognitive Science*, **2020**, 44, e12900	2.2	1
91	Experimental evolutionary simulations of learning, memory and life history. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2020**, 375, 20190504	5.8	5
90	What the Baldwin Effect affects depends on the nature of plasticity. *Cognition*, **2020**, 197, 104165	3.5	4
89	Scaling up psychology via Scientific Regret Minimization. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 8825-8835	11.5	9
88	How to Be Helpful to Multiple People at Once. *Cognitive Science*, **2020**, 44, e12841	2.2	1
87	Pragmatic-Pedagogic Value Alignment. *Springer Proceedings in Advanced Robotics*, **2020**, 49-57	0.6	3
86	Advancing rational analysis to the algorithmic level. *Behavioral and Brain Sciences*, **2020**, 43, e27	0.9	3
85	Reconciling novelty and complexity through a rational analysis of curiosity. *Psychological Review*, **2020**, 127, 455-476	6.3	27
84	Understanding Human Intelligence through Human Limitations. *Trends in Cognitive Sciences*, **2020**, 24, 873-883	14	7
83	Capturing human categorization of natural images by combining deep networks and cognitive models. *Nature Communications*, **2020**, 11, 5418	17.4	16
82	Parallelograms revisited: Exploring the limitations of vector space models for simple analogies. *Cognition*, **2020**, 205, 104440	3.5	3
81	Identifying category representations for complex stimuli using discrete Markov chain Monte Carlo with people. *Behavior Research Methods*, **2019**, 51, 1706-1716	6.1	2
80	Doing more with less: meta-reasoning and meta-learning in humans and machines. *Current Opinion in Behavioral Sciences*, **2019**, 29, 24-30	4	19
79	Cognitive prostheses for goal achievement. *Nature Human Behaviour*, **2019**, 3, 1096-1106	12.8	4
78	Learning How to Generalize. *Cognitive Science*, **2019**, 43, e12777	2.2	7

77	The value of abstraction. *Current Opinion in Behavioral Sciences*, **2019**, 29, 111-116	4	6
76	nbgrader: A Tool for Creating and Grading Assignments in the Jupyter Notebook. *The Journal of Open Source Education*, **2019**, 2, 32	1.2	14
75	Learning to generalize like humans using basic-level object labels. *Journal of Vision*, **2019**, 19, 60a	0.4	
74	Learning to calibrate age estimates. *Journal of Vision*, **2019**, 19, 188b	0.4	
73	Resource-rational analysis: Understanding human cognition as the optimal use of limited computational resources. *Behavioral and Brain Sciences*, **2019**, 43, e1	0.9	112
72	Subjective randomness as statistical inference. *Cognitive Psychology*, **2018**, 103, 85-109	3.1	9
71	Empirical evidence for resource-rational anchoring and adjustment. *Psychonomic Bulletin and Review*, **2018**, 25, 775-784	4.1	14
70	Sensitivity to Shared Information in Social Learning. *Cognitive Science*, **2018**, 42, 168-187	2.2	17
69	The anchoring bias reflects rational use of cognitive resources. *Psychonomic Bulletin and Review*, **2018**, 25, 322-349	4.1	51
68	Rational metareasoning and the plasticity of cognitive control. *PLoS Computational Biology*, **2018**, 14, e1006043	5	41
67	Sampling from object and scene representations using deep feature spaces. *Journal of Vision*, **2018**, 18, 403	0.4	
66	A learned generative model of faces for experiments on human identity. *Journal of Vision*, **2018**, 18, 352	0.4	
65	Overrepresentation of extreme events in decision making reflects rational use of cognitive resources. *Psychological Review*, **2018**, 125, 1-32	6.3	44
64	Evaluating (and Improving) the Correspondence Between Deep Neural Networks and Human Representations. *Cognitive Science*, **2018**, 42, 2648-2669	2.2	41
63	When Absence of Evidence Is Evidence of Absence: Rational Inferences From Absent Data. *Cognitive Science*, **2017**, 41 Suppl 5, 1155-1167	2.2	9
62	Adding population structure to models of language evolution by iterated learning. *Journal of Mathematical Psychology*, **2017**, 76, 1-6	1.2	4
61	The Hierarchical Cortical Organization of Human Speech Processing. *Journal of Neuroscience*, **2017**, 37, 6539-6557	6.6	111
60	Evolution in Mind: Evolutionary Dynamics, Cognitive Processes, and Bayesian Inference. *Trends in Cognitive Sciences*, **2017**, 21, 522-530	14	17

59	Finding the traces of behavioral and cognitive processes in big data and naturally occurring datasets. *Behavior Research Methods*, **2017**, 49, 1630-1638	6.1	24
58	Toward a Rational and Mechanistic Account of Mental Effort. *Annual Review of Neuroscience*, **2017**, 40, 99-124	17	361
57	Learning to Be (In)variant: Combining Prior Knowledge and Experience to Infer Orientation Invariance in Object Recognition. *Cognitive Science*, **2017**, 41 Suppl 5, 1183-1201	2.2	
56	Formalizing Neurath's ship: Approximate algorithms for online causal learning. *Psychological Review*, **2017**, 124, 301-338	6.3	46
55	Strategy selection as rational metareasoning. *Psychological Review*, **2017**, 124, 762-794	6.3	53
54	Changes in cognitive flexibility and hypothesis search across human life history from childhood to adolescence to adulthood. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 7892-7899	11.5	115
53	Focal colors across languages are representative members of color categories. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 11178-11183	11.5	26
52	The Sapir-Whorf Hypothesis and Probabilistic Inference: Evidence from the Domain of Color. *PLoS ONE*, **2016**, 11, e0158725	3.7	50
51	Children's causal inferences from conflicting testimony and observations. *Developmental Psychology*, **2016**, 52, 9-18	3.7	16
50	Sampling Assumptions Affect Use of Indirect Negative Evidence in Language Learning. *PLoS ONE*, **2016**, 11, e0156597	3.7	5
49	Faster Teaching via POMDP Planning. *Cognitive Science*, **2016**, 40, 1290-332	2.2	20
48	Infant-directed speech is consistent with teaching. *Psychological Review*, **2016**, 123, 758-771	6.3	25
47	Sources of developmental change in the efficiency of information search. *Developmental Psychology*, **2016**, 52, 2159-2173	3.7	39
46	Natural speech reveals the semantic maps that tile human cerebral cortex. *Nature*, **2016**, 532, 453-8	50.4	630
45	Inferring mass in complex scenes by mental simulation. *Cognition*, **2016**, 157, 61-76	3.5	25
44	Exploring Human Cognition Using Large Image Databases. *Topics in Cognitive Science*, **2016**, 8, 569-88	2.5	3
43	Relevant and robust: a response to Marcus and Davis (2013). *Psychological Science*, **2015**, 26, 539-41	7.9	17
42	A rational model of function learning. *Psychonomic Bulletin and Review*, **2015**, 22, 1193-215	4.1	41

41	Rational use of cognitive resources: levels of analysis between the computational and the algorithmic. *Topics in Cognitive Science*, **2015**, 7, 217-29	2.5	129
40	When Younger Learners Can Be Better (or at Least More Open-Minded) Than Older Ones. *Current Directions in Psychological Science*, **2015**, 24, 87-92	6.5	82
39	Manifesto for a new (computational) cognitive revolution. *Cognition*, **2015**, 135, 21-3	3.5	46
38	Inferring action structure and causal relationships in continuous sequences of human action. *Cognitive Psychology*, **2015**, 76, 30-77	3.1	22
37	Identifying expectations about the strength of causal relationships. *Cognitive Psychology*, **2015**, 76, 1-29	3.1	13
36	Revealing ontological commitments by magic. *Cognition*, **2015**, 136, 43-8	3.5	7
35	Random walks on semantic networks can resemble optimal foraging. *Psychological Review*, **2015**, 122, 558-69	6.3	68
34	Probabilistic models, learning algorithms, and response variability: sampling in cognitive development. *Trends in Cognitive Sciences*, **2014**, 18, 497-500	14	78
33	Tracing the roots of syntax with Bayesian phylogenetics. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 13576-81	11.5	13
32	Win-Stay, Lose-Sample: a simple sequential algorithm for approximating Bayesian inference. *Cognitive Psychology*, **2014**, 74, 35-65	3.1	50
31	Optimally designing games for behavioural research. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2014**, 470, 20130828	2.4	4
30	When children are better (or at least more open-minded) learners than adults: developmental differences in learning the forms of causal relationships. *Cognition*, **2014**, 131, 284-99	3.5	83
29	One and done? Optimal decisions from very few samples. *Cognitive Science*, **2014**, 38, 599-637	2.2	154
28	Analyzing the rate at which languages lose the influence of a common ancestor. *Cognitive Science*, **2014**, 38, 1406-31	2.2	4
27	Revealing human inductive biases for category learning by simulating cultural transmission. *Psychonomic Bulletin and Review*, **2014**, 21, 785-93	4.1	10
26	A rational account of pedagogical reasoning: teaching by, and learning from, examples. *Cognitive Psychology*, **2014**, 71, 55-89	3.1	117
25	The child as econometrician: a rational model of preference understanding in children. *PLoS ONE*, **2014**, 9, e92160	3.7	35
24	Greater learnability is not sufficient to produce cultural universals. *Cognition*, **2013**, 129, 70-87	3.5	7

23	A role for the developing lexicon in phonetic category acquisition. *Psychological Review*, **2013**, 120, 751-783	6.3	104
22	A nonparametric Bayesian framework for constructing flexible feature representations. *Psychological Review*, **2013**, 120, 817-51	6.3	19
21	Reconciling intuitive physics and Newtonian mechanics for colliding objects. *Psychological Review*, **2013**, 120, 411-37	6.3	106
20	The effects of cultural transmission are modulated by the amount of information transmitted. *Cognitive Science*, **2013**, 37, 953-67	2.2	7
19	How the Bayesians got their beliefs (and what those beliefs actually are): comment on Bowers and Davis (2012). *Psychological Bulletin*, **2012**, 138, 415-22	19.1	74
18	How to grow a mind: statistics, structure, and abstraction. *Science*, **2011**, 331, 1279-85	33.3	899
17	Seeking Confirmation Is Rational for Deterministic Hypotheses. *Cognitive Science*, **2011**, 35, 499-526	2.2	19
16	Bayes and blickets: effects of knowledge on causal induction in children and adults. *Cognitive Science*, **2011**, 35, 1407-55	2.2	51
15	The imaginary fundamentalists: The unshocking truth about Bayesian cognitive science. *Behavioral and Brain Sciences*, **2011**, 34, 194-196	0.9	21
14	Rethinking language: how probabilities shape the words we use. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 3825-6	11.5	11
13	Predicting the future as Bayesian inference: people combine prior knowledge with observations when estimating duration and extent. *Journal of Experimental Psychology: General*, **2011**, 140, 725-43	4.7	36
12	Probabilistic models of cognition: exploring representations and inductive biases. *Trends in Cognitive Sciences*, **2010**, 14, 357-64	14	432
11	ITERATED LEARNING OF MULTIPLE LANGUAGES FROM MULTIPLE TEACHERS **2010**,		8
10	The strengths of and some of the challenges for Bayesian models of cognition. *Behavioral and Brain Sciences*, **2009**, 32, 89-90	0.9	2
9	Theory-based causal induction. *Psychological Review*, **2009**, 116, 661-716	6.3	269
8	Review. Theoretical and empirical evidence for the impact of inductive biases on cultural evolution. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2008**, 363, 3503-14	5.8	72
7	Using category structures to test iterated learning as a method for identifying inductive biases. *Cognitive Science*, **2008**, 32, 68-107	2.2	41
6	Topics in semantic representation. *Psychological Review*, **2007**, 114, 211-44	6.3	682

5	Google and the mind: predicting fluency with PageRank. *Psychological Science*, **2007**, 18, 1069-76	7.9	108
4	Structure and strength in causal induction. *Cognitive Psychology*, **2005**, 51, 334-84	3.1	317
3	Finding scientific topics. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101 Suppl 1, 5228-35	11.5	3137
2	Generalization, similarity, and Bayesian inference. *Behavioral and Brain Sciences*, **2001**, 24, 629-40; discussion 652-791	0.9	439
1	Some specifics about generalization. *Behavioral and Brain Sciences*, **2001**, 24, 762-778	0.9	10