Bonan Zhao

b.zhao@ed.ac.uk

EDUCATION

PhD, Psychology, University of Edinburgh, Edinburgh, Scotland, UK	2019-2023
MSc, Logic (Cum Laude), University of Amsterdam, Amsterdam, the Netherlands	2015-2017
BA, Philosophy, Tsinghua University, Beijing, China	2011-2015

EXPERIENCE

Training Fellow, Centre for Data, Culture & Society, University of Edinburgh, Edinburgh	2022-2023
Open Research Facilitator, University of Edinburgh, Edinburgh	2021-2022
Data Analyst, Screen 6 (Amsterdam startup), Amsterdam	2017-2019

PUBLICATIONS

Working papers

- 1. N. R. Bramley, T. Quillien, **B. Zhao**, C. G. Lucas, and A. Szollosi. How mechanisms of concept construction shape and constrain the development of world models, under review
- 2. **B. Zhao**, C. G. Lucas, and N. R. Bramley. How cognition bootstraps its way to complex concepts, under review

Peer-reviewed articles

- 3. T. Gong, **B. Zhao**, R. D. McIntosh, and C. G. Lucas. A rational model of spatial neglect. In *Proceedings of the 45th Annual Meeting of the Cognitive Science Society*, 2023
- 4. **B. Zhao**, C. G. Lucas, and N. R. Bramley. Bootstrapping compositional generalization with cache-and-reuse. In *Proceedings of Computational Cognitive Neuroscience Society Meeting*, 2023
- 5. **B. Zhao**, N. R. Bramley, and C. G. Lucas. Powering up causal generalization: A model of human conceptual bootstrapping with adaptor grammars. In *Proceedings of the 44th Annual Meeting of the Cognitive Science Society*. Cognitive Science Society, 2022
- Z. Xia*, B. Zhao*, T Quillien, and C. G. Lucas. Dissecting causal asymmetries in inductive generalization. In Proceedings of the 44th Annual Meeting of the Cognitive Science Society. Cognitive Science Society, 2022
- 7. N. Marchant, **B. Zhao**, N. R. Bramley, D. Morales, and S. E. Chaigneau. Categorizing perceived causal events. In *Proceedings of the 44th Annual Meeting of the Cognitive Science Society*. Cognitive Science Society, 2022
- 8. **B. Zhao**, C. G. Lucas, and N. R. Bramley. How do people generalize causal relations over objects? A non-parametric Bayesian account. *Computational Brain & Behavior*, 5:22–44, 2022
- 9. S. Valentin, **B. Zhao**, C. Jiang, C. G. Lucas, and N. R. Bramley. Symbolic and sub-symbolic systems in people and machines. In *Proceedings of the 43rd Annual Meeting of the Cognitive Science Society*. Cognitive Science Society, 2021
- 10. **B. Zhao** and N. R. Bramley. Order effects in one-shot causal generalization. In *Proceedings of the 42nd Annual Meeting of the Cognitive Science Society*. Cognitive Science Society, 2020

- 11. **B. Zhao**, I. van de Pol, M. Raijmakers, and J. Szymanik. Predicting cognitive difficulty of the deductive mastermind game with dynamic epistemic logic models. In *Proceedings of the 40th Annual Meeting of the Cognitive Science Society*. Cognitive Science Society, 2018
- 12. V. Capraro, J. Sippel, B. Zhao, L. Hornischer, M. Savary, Z. Terzopoulou, P. Faucher, and S. F. Griffioen. People making deontological judgments in the trapdoor dilemma are perceived to be more prosocial in economic games than they actually are. PLOS One, 2018
- 13. Z. Terzopoulou, A. Solaki, and B. Zhao. Logic of closeness revision: Challenging relations in social networks. In *Proceedings of the ESSLLI 2016 Student Session*. 28th European Summer School in Logic, Language & Information, 2016

Posters

- 14. **B. Zhao**, C. G. Lucas, and N. R. Bramley. Powering up causal generalization: A model of human conceptual bootstrapping with adaptor grammars. Poster presented at the 44th Annual Meeting of the Cognitive Science Society, 2022
- 15. **B. Zhao** and N. R. Bramley. Order effects in one-shot causal generalization. Poster presented at the 42nd Annual Meeting of the Cognitive Science Society, 2020
- 16. B. Zhao, I. van de Pol, M. Raijmakers, and J. Szymanik. Predicting cognitive difficulty of the deductive mastermind game with dynamic epistemic logic models. Poster presented at the 40th Annual Meeting of the Cognitive Science Society, Madison, WI, USA, 2018
- 17. Z. Terzopoulou, A. Solaki, and **B. Zhao**. Logic of closeness revision and opinion-closeness revision. Poster presented at the 12th Conference on Logic and the Foundations of Game and Decision Theory (LOFT), Maastricht, The Netherlands, 2016

Organized workshop

 S. Valentin, B. Zhao, C. Jiang, C. G. Lucas, and N. R. Bramley. Symbolic and sub-symbolic systems in people and machines. Workshop at the 43rd Annual Meeting of the Cognitive Science Society, 2021

Invited Talks

Human Cognitive Neuroscience seminar, University of Edinburgh, Edinburgh, UK	Oct 2022
Computational Cognitive Science Lab, Princeton University, remote	$\mathrm{Sep}\ 2022$
Computation & Cognition Lab, Stanford University, remote	$\mathrm{Sep}\ 2022$
Computational Cognitive Science Lab, University of Melbourne, remote	May 2022
Logic and Interactive Rationality, University of Amsterdam, remote	Mar 2022
London Judgment and Decision Making Seminar, London, UK	Mar 2022
Causality in Cognition Lab, Stanford University, remote	Feb 2022
Computational Principles of Intelligence Lab, MPI Tübingen, remote	Jul 2021
Donders Institute for Brain, Cognition and Behaviour, Nijmegen, The Netherlands	May 2017
Cool Logic, Institute for Logic, Language and Computation, Amsterdam, The Netherlands	Apr 2016

Conference & Workshop Presentations

Reasoning Workshop, Edinburgh Laboratory for Integrated Intelligence

Jun 2022

Symbolic and sub-symbolic systems in people and machines, CogSci 2021, remote	Jul 2021
International Conference of Thinking (ICT 2020), remote	Jun 2021
Annual Meeting of the Cognitive Science Society (CogSci 2020), remote	Aug 2020
Annual Meeting of the Cognitive Science Society (CogSci 2018), Madison, US	Jul 2018
LABEX CIMI Pluridisciplinary Workshop on Game Theory, Toulouse, France	Nov 2015
Awards & Scholarships	
Good Research Practice Awards (Open Research Award), Edinburgh Research Office	2022
Research Support Grants, Department of Psychology, University of Edinburgh	2020-2022
Research travels and payment for participants	
Postgraduate Research Award, University of Edinburgh	2019-2022
International rate tuition fee and monthly stipend for three years	
Springer Best Paper Award, European Summer School in Logic, Language and Information	n 2016
Amsterdam Excellence Scholarship, University of Amsterdam	2015-2017
Dean's Award, Tsinghua University	2014

TEACHING

Tutor, University of Edinburgh, Edinburgh

2020-2023

- Introduction to Cognitive Science
- Causal Cognition
- Logic 1
- Univariate Statistics and Methodology using R
- Data Analysis for Psychology in R

SERVICE

Reviewer

- CogSci 2020-2022
- Artificial Intelligence, Journal of Cognition, Journal of Experimental Psychology: Applied, Scientific Reports

Organizer, EdinCoCoSci lab meetings, University of Edinburgh2019-2022Organizer, Logic Tea seminar series, Institute for Logic, Language and Computation2016-2017