



Parpart Paula

Curriculum Vitae

Education

- Sept 2013–
July 2017 **PhD, Experimental Psychology**, *Experimental Psychology Dept., UCL*, London, UK,
Thesis: Why less can be more: A Bayesian Framework for Heuristics
Supervisors: Prof Bradley C. Love & Dr Maarten Speekenbrink
Grade: No corrections
Examiners: Prof Peter Latham (Gatsby) & Prof Andy Wills (Plymouth)
Funding: 4-year EPSRC grant, Centre for Doctoral Training in Financial Computing.
- 2012–2013 **MRes, Computer Science**, *Computer Science Dept., UCL*, London, UK,
Thesis: Improving Fraud Detection: A Rational Bayesian Model for Heuristic Decision Making
Took courses in Statistics/Machine Learning at UCL & London Business School
Supervisors: Prof Bradley C. Love & Dr John Dowell
Project grade: Distinction
Overall grade: Merit.
- 2010–2011 **MSc, Cognitive and Decision Sciences**, *UCL*, London, UK,
Project: Recognize Bayes? Bayesian Modeling of the Recognition Heuristic
Supervisors: Dr Anne Hsu & Prof Nick Chater
Project grade: Distinction
Overall grade: Distinction.
- 2006–2010 **BSc, Psychology (German: Vordiplom)**, *Humboldt University Berlin, Department of Psychology*, Berlin, Germany, Overall grade: 2,1,
One term was spent abroad at NYU studying math at the Courant Institute for Mathematical Sciences, NYU, New York.

Academic Experience

- Jan 2018 **Moore-Sloan Visiting Academic, Center for Data Science**, *New York University*, New York, NY.
–August 2018
 - Research on human generalization performance and learning-to-learn in Todd Gureckis' (NYU) lab, collaborating with Eric Schulz (Harvard), & Chris Summerfield (Oxford) and Tom Griffiths (Princeton)

Aug 2016– **Teaching Fellow in Computational Decision Making**, *UCL*, London, UK.

Aug 2017 MSc Cognitive and Decision Sciences

- Designed teaching curriculum on several core modules
- Jointly directed Msc with program with directors Prof Dave Lagnado & Dr Adam Harris
- Taught 3 main modules and 2 seminars (full-time)
- Module convenor for Knowledge, Learning & Inference (Bayesian and computational approaches to cognition and learning), Principles of Cognition (Fundamentals of cognitive science), Cognitive Science Seminar, 1st Year Seminar, Decision Making 3rd Year Lab & Co-convenor for Applied Decision Making. Personal Tutor and Supervisors for Msc students.

Nov 2016 **Invited Participant**, *Isaac Newton Institute for Mathematical Sciences, University of Cambridge*, Cambridge, UK,

“Probability and Statistics in Forensic Science” workshop (4 weeks)

Organized by: Norman Fenton, Leila Schneps, David Balding, Richard Gill & David Lagnado.

Oct 2011– **Research Associate**, *Warwick Business School*, Coventry, UK.

Jan 2012 Behavioural Science Group (worked with Dr Chris Olivola, in Prof Nick Chater’s group)

- Research on Decisions by Sampling (DbS) approach (Stewart, Chater & Brown, 200
- In how far does inter-temporal choice and risky decision making behaviour depend on culture? Data was scraped from Twitter and social media.

2007–2010 **Research Assistant**, *ABC Research Group, Max Planck Institute for Human Development*, Berlin, Germany.

- Worked with Prof Leal Schooler, Prof Edward Cokely & Prof Gerd Gigerenzer in Gigerenzer’s ABC research group
- Research on fast and frugal heuristics and the relationship with cognitive control, memory processes and dual system theories: We showed that heuristic processes need not stem from ‘system 1’ processes.
- Research on graph literacy and numeracy skills with Prof Edward Cokely
- Tested and ran experiments for many other scientists such as Prof Mirta Galesic (Santa Fe), Jonathan Nelson (Surrey) & Bjoern Meder (MPI)

Professional Experience

Jan 2016–present **Founder at Brainpool AI**, London, UK.
Brainpool is an artificial intelligence and data science consultancy that focuses on integrating academic excellence with industry. 6 employees. Located at the UCL Hatchery, KX Base.
URL: www.brainpool.ai

- Brainpool operates a network of 220+ academics worldwide spanning PhDs, post-docs and professors who specialise in machine learning and data science fields
- Providing machine learning and AI solutions to organizations in the private sector and public sector such as NHS hospitals and government departments
- Project partners: Alan Turing Institute London, IBM UK, Kx Systems, Facebook Oculus Rift, Center for Data Science NYU
- Clients: Sainsburys, NHS hospitals, 2 major investment banks, Dept of Education, FocalData, ICS, MindShare, Foursquare, Draper and Dash, Bibblio, Blis, Suez, IAG, Happiest Baby, and more.

2014 **Behavioural Insights Consultant**, *jbw*, London, UK.

Advised on behavioural insights techniques to increase voluntary payment behaviour of debts to prevent law enforcement.

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2/8

- Dec 2012–
August 2015 **Data Science Consultant**, *St Andrews Healthcare Psychiatric Hospital*, Northampton, UK.
Improving clinicians risk assessment: Research project into new test instruments jointly with UCL academics for better predicting risk levels of psychiatric patients.
Collaborators: Dr Paul Wallang - St Andrews, Forensic Psychiatrist, Lukasz Kopec - UCL, Prof Brad Love - UCL
- 2012–2013 **Data Science Consultant**, *Cabinet Office, UK Government*, London, UK.
Placement as part of the PhD Center for Financial Computing scholarship
Tackling benefit fraud: Applied a machine learning classification model to detect fraud cases. The focus was on fraud prevention by detecting fraud from non-fraud cases early on. Model was based on regularized regression approach (COR) developed during my PhD.

Publications

Peer-reviewed articles, past & present

1. **Parpart, P.**, Schulz, E., Speekenbrink, M. & Love, B. (in revision), Active learning reveals underlying decision strategies. <https://doi.org/10.1101/239558>
2. Mumford, K., Lagnado, D. A. & **Parpart, P.** (submitted), An illusion of understanding in Brexit policies does not cause people to change their extreme attitudes.
3. **Parpart, P.**, & Schulz, E. (submitted), Is covariance ignorance responsible for the success of heuristics?
4. Guarda, P., **Parpart, P.**, Harvey, N., & Juan Carlos Muñoz (submitted), A psychological approach to understanding decisions about time in public transport. Evidence from lab experiments in London, UK and Santiago, Chile.
5. **Parpart, P.**, & Schulz, E. (in prep), The role of covariance in heuristics suggests a reinterpretation of Take-The-Best's success.
6. **Parpart, P.**, & Love, B. (in prep), Reversing less-is-more effects.
7. **Parpart, P.**, Speekenbrink, M. & Hsu, A. (in prep), Bayesian modelling of the recognition heuristic reveals people integrate further information.
8. **Parpart, P.**, Cokely, E. & Schooler, L. (in prep), Fast and Frugal Reflection? On the Link between Cognitive Control and Fluency
9. **Parpart, P.**, Jones, M. & Love, B.C. (2017), Heuristics as Bayesian inference under extreme priors. *Cognitive Psychology*, DOI: <https://dx.doi.org/10.17605/OSF.IO/QKBT5>
10. **Parpart, P.**, Schulz, E., Speekenbrink, M. & Love, B. (2015), Active learning as a means to distinguish among prominent decision strategies. *Proceedings of the 37th Annual Conference of the Cognitive Science Society*, <https://mindmodeling.org/cogsci2015/papers/0317/paper0317.pdf>
11. Cokely, E.T., **Parpart, P.**, & Schooler, L.J. (2009), On the link between cognitive control and heuristic processes. *Proceedings of the 31st Annual Conference of the Cognitive Science Society*. <https://escholarship.org/uc/item/6qj0k72h>

Peer-reviewed abstracts, presentations & posters

10. Kopec, L., **Parpart, P.**, Wallang, P. & Love, B.C. (2016), Less Information Can Improve Clinical Risk Assessments. Talk presented at the Society for Medical Decision Making Biennial European Conference, 2016, London, United Kingdom
11. **Parpart, P.**, Schulz, E., Speekenbrink, M. & Love, B. (2015), Active learning as a means to distinguish among prominent decision strategies. Talk presented at the Proceedings of the 37th Annual Conference of the Cognitive Science Society, 2015, Pasadena, CA.
12. **Parpart, P.**, Jones, M., & Love, B.C. (2015), Simple Heuristics as Special Cases of Bayesian Inference. Poster presented at the Memory and Decision Making Workshop, University of Basel, Basel, Switzerland
13. **Parpart, P.**, Jones, M., & Love, B.C. (2015), Simple Heuristics as Special Cases of Bayesian Inference. Simple Heuristics as Special Cases of Bayesian Inference. Poster presented at the Cumberland Lodge PhD Conference, Windsor, United Kingdom
14. **Parpart, P.**, Jones, M., & Love, B.C. (2014), Heuristics as a Special Case of Bayesian Inference. Talk at Decision Making Bristol 2014, University of Bristol, Bristol, United Kingdom
15. **Parpart, P.**, Jones, M., & Love, B.C. (2014), Heuristics as Special Cases of Bayesian Inference. Poster presented at the 36th Annual Conference of the Cognitive Science Society, 2014, Quebec City, Canada
16. **Parpart, P.**, Jones, M., & Love, B.C. (2014), Heuristics as Special Cases of Bayesian Inference. Talk at the Mathematical Psychology Conference 2014, Quebec City, Canada
17. **Parpart, P.**, Jones, M., & Love, B.C. (2014), Heuristics as Special Cases of Bayesian Inference. Reconciling irrational and adaptive views of heuristics. Talk at the Cumberland Lodge PhD Conference, Windsor, United Kingdom
18. **Parpart, P.**, Jones, M., & Love, B.C. (2013), Reconciling irrational and adaptive views of heuristics. Talk at the 34th International Conference on Subjective Probability, Utility and Decision Making (SPUDM24), ISCE, Barcelona, Spain
19. **Parpart, P.**, Jones, M., & Love, B.C. (2013), When is it rational to rely on heuristics? Poster presented at the 35th Annual Conference of the Cognitive Science Society, 2013, Berlin, Germany
20. **Parpart, P.**, & Cokely, E.T. (2011), When does Cognitive Control lead to Biases? Evidence from Memory and Stock Profit Estimation Tasks. Poster presented at the 23rd International Conference on Subjective Probability, Utility and Decision Making (SPUDM23), Kingston Upon Thames, United Kingdom
21. Okan, Y., **Parpart, P.**, Cokely, E.T. & Garcia-Retamero, R. (2011), The effect of misleading graphs on the comprehension of health and political communications: Who is more susceptible to misinterpret data? Poster presented at the 23rd International Conference on Subjective Probability, Utility and Decision Making (SPUDM23), Kingston Upon Thames, United Kingdom

22. Okan, Y., Woller-Carter, M., Simon, S.R., Russell, K., Ghazal S., **Parpart, P.**, Garcia-Retamero R., Cokely, E.T. (2011), Overcoming distortions in political and health communication: Mechanisms of graph literacy. Poster presented at the 83rd Annual meeting of the Midwestern Psychological Association, Chicago, IL.
23. **Parpart, P.**, & Cokely, E.T. (2010), Fluency and cognitive control in judgment: Influences of memory and elaborative encoding. Poster presented at the Proceedings of the 32nd Annual Conference of the Cognitive Science Society, 2010, Portland, Oregon
24. Cokely, E.T., **Parpart, P.**, & Schooler, L.J. (2009), Mechanisms of superior judgment: Ironie effects of cognitive control. Talk at the 23rd Annual Meeting of the Society for Judgment and Decision-Making, Boston, MA.
25. Cokely, E.T., & **Parpart, P.** (2009), There is no “the” heuristic system: Modes of cognitive control in judgment and decision making. Talk at the 16th European Society for Cognitive Psychology Conference, Krakow, Poland
26. Cokely, E.T., & **Parpart, P.** (2009), Modes of cognitive control in judgment & decision making. Talk at the 22nd Subjective Probability Utility Decision Making (SPUDM22) Conference, Reverso, Italy
27. Cokely, E.T., & **Parpart, P.** (2008), There is no “the” heuristic system: Evidence of reflective heuristic processing. Poster presented at the 49th Annual Meeting of the Psychonomic Society, Chicago, IL.
28. **Parpart, P.** & Cokely, E.T. (2008), Individual differences and the use of fluency in judgment: Paradoxical evidence of reflective heuristic processing. Poster presented at the 2nd Biennial Symposium on Personality and Social Psychology, Warsaw, Poland

Invited Talks

- Nov 2017 **Parpart, P.**, Heuristics as Bayesian priors in cognition. Invited Talk at the ARC Research Group (Ralph Hertwig), Max Planck Institute for Human Development, Berlin, Germany
- Oct 2017 **Parpart, P.**, Heuristics as Bayesian priors in cognition. Invited Talk at the Moore-Sloan lunch time seminars, NYU Center for Data Sciences, New York University, New York
- Oct 2017 **Parpart, P.**, Heuristics as Bayesian inference under extreme priors. Invited Talk at the ConCats Seminar Series, Todd Gureckis lab, Dept of Psychology, New York University, New York
- Feb 2015 **Parpart, P.**, Heuristics as special cases of Bayesian Inference. Invited Talk at the Decision Making Seminar Series, City University London, London, United Kingdom
- Nov 2014 **Parpart, P.**, Heuristics as special cases of Bayesian Inference. Invited Talk at the London Judgement and Decision Making Seminar Series (LJDM), University College London, London, United Kingdom
- March 2012 **Parpart, P.**, Can Simple Heuristic Judgments Sometimes Match Optimal Bayesian Inference? Invited Talk at the Center for Cognitive and Decision Sciences (CDS), University of Basel, Basel, Switzerland

Professional Talks

- May 2018 **Parpart, P.**, Advances in machine learning and artificial intelligence. Invited Talk at the 25th Anniversary of Kx Systems, New York City, New York
- May 2018 **Parpart, P.**, Advances in behavioural and data sciences, Invited Talk at Leverhulme Bridges Program, Warwick Behavioural Science Group, Warwick University, London, UK
- May 2018 **Parpart, P.**, Advances in machine learning and artificial intelligence. Invited Talk at "Tech Me Out" on biotechnology and artificial intelligence, Pint of Sciences, Non-profit organisation organized by academics, London, UK
- Feb 2018 **Parpart, P.**, Who owns artificial intelligence? Invited Talk at the Digital Economy Network CDT Symposium by the EPSRC, Digital Catapult Centre, London, UK
- Jan 2018 **Parpart, P.**, Will AI be restricted by capitalism or is AI communist? Talk at the AI World Congress 2018, London, UK
- Dec 2017 **Parpart, P.**, Democratization of AI. Invited Talk at Telegraph DEN Live Conference, London, UK
- Nov 2017 **Parpart, P.**, Brainpool - Revolutionizing healthcare and the NHS with AI. Invited Talk at the AI Stage GIANT Healthcare Conference, London, UK
- Nov 2017 **Parpart, P.**, The future of data science. Invited Talk at the Doctoral Training Centre for Financial Computing & Analytics, UCL, London, UK
- Nov 2017 **Parpart, P.**, Brainpool democratizes access to elite AI and ML scientists. Invited Talk at Emerging Technologies: Machine Learning Academy, IDEA London, UK
- Oct 2017 **Parpart, P.**, The future of science-industry collaboration. Invited Talk at the Moore-Sloan Lunchtime talks (Tassos Noulas), Center for Data Science, NYU, New York
- Sept 2017 **Parpart, P.**, A new model for AI consulting. Invited Talk at the EPSRC Entrepreneurship Workshop, Digital Catapult Center, London, UK

Awards & Research Grants

- 2017 **Teaching Awards for Outstanding Researcher Development & Outstanding Personal Support**, *2017 Student Choice Teaching Awards*, UCL, Department of Experimental Psychology.
- 2014 **Sully Scholarship for First Prize PhD Upgrade - £1000**, *UCL's Department of Experimental Psychology*.
- 2014 **Best PhD Talk Prize - £150**, *Cumberland Lodge Conference*, Windsor, United Kingdom.
- 2012-2016 **EPSRC Financial Computing Grant - £79,600**, *Full 4-year scholarship for PhD at UCL*, Centre for Doctoral Training in Financial Computing and Analytics, London, U.K..
- 2010-2011 **DAAD Graduate Scholarship - £16,000**, *Full scholarship for MSc at UCL*, German Government Exchange Service, London, U.K..

- 2009 **NYU Undergraduate Studentship - \$30,000**, *Full scholarship for study abroad term at New York University, Humboldt University, Berlin, Germany.*
- 2008 **Best Student Poster Award**, *Second Biennial Conference on Personality and Social Psychology*, awarded by Prof. Michael W. Eysenck, Prof Maruszewski und Prof Gerald Matthews, Warsaw, Poland.
- 2007 **Winner of Best Student Experiment**, *Student competition for Experimental study design*, Humboldt University, Berlin, Germany.

Teaching

- Sept 2016 - **Teaching Fellow**, *Msc Cognitive and Decision Sciences*, Department of Experimental Psychology, UCL.
- August 2017
- Feb 2016 **Ad-hoc Lecturer on the CODES course**, *Knowledge, Learning and Inference module*, Lectures on "Bayesian Approaches to Heuristics", Department of Experimental Psychology, UCL.
- 2014-2015 **Statistics Tutorials**, *Department of Experimental Psychology, UCL.*
Graduate Course on statistics with a model comparison approach, using SPSS.
 - General Linear Model, Statistical Inference, Regression, Moderation & mediation, ANOVA, Repeated Measures, Mixed Effects and Multilevel Models, Logistic Regression
- 2014 **Msc Cognitive Science Seminar**, *Department of Experimental Psychology, UCL.*
Taught the full year of weekly seminars. Discussing research papers with Master students and their final projects for dissertations.
- 2009-2010 **Tutor**, *Max Planck Institute for Human Development, Berlin.*
Weekly Tutorials for new Interns: Teaching statistical software and questionnaire design.

Supervision

- Kate Mumford **Msc 2017** The illusion of understanding (IOED) in the context of Brexit.
- Pablo Guarda **MSc 2017** Understanding Risk Attitudes Toward Waiting and Travel Time Variability in Public Transport.
- Matt Bodien **MSc 2017** Ideologue Over Ideology: The Dominating Influence of political affiliations over personal values.
- Samantha Mead **BSc 2014** Heuristics in a Real-World setting: An Example of Gambling.
- Sabina Ghinescu **BSc 2015** Heuristics as a special case of Bayesian inference - Experimental study

Languages

- English **Advanced**
- German **Native**
- French **Intermediate**
- Spanish **Basic**

Computer skills

Software R, Matlab, Python, ggplot (Visualization), JavaScript, HTML, CSS, LaTeX, Java, SQL, MySQL, PHP, SPSS, WinBugs, Mechanical Turk, Unipark, Qualtrics, psiTurk

Scientific Reviewing

Ad hoc reviewer **Journal of Experimental Psychology,
Cognitive Science Society Conference**

Book Review ***In Two Minds* (Jonathan St. Evans),
Co-reviewed with Prof. Edward Cokely**

Professional Memberships

2009- present **Cognitive Science Society**

2009- present **Society for Judgement and Decision Making**

2007- present **American Psychological Society (APS)**