Parpart Paula

Curriculum Vitae

Education

Sept 2013–
July 2017
PhD, Cognitive Science, *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
Funding: 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 Insitute for Mathematical Sciences, NYU, New York.

Academic Experience

Jan 2018
–August 2018
Moore-Sloan Visiting Academic, Center for Data Science, *New York University*, New York, NY.
- Research on human generalization performance, learning-to-learn and data science psychology tools collaborating with Todd Gureckis' lab (NYU psychology)

Aug 2016– Aug 2017	**Teaching Fellow in Computational Decision Making**, *UCL*, London, UK. MSc Cognitive and Decision Sciences

  ○ Designed teaching curriculum on several core modules
  ○ Directed Msc with program 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 Supervisor 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– Jan 2012	**Research Associate**, *Warwick Business School*, Coventry, UK. Behavioural Science Group (worked with Dr Chris Olivola, in Prof Nick Chater's group)

  ○ Research on Decisions-by-Sampling approach (Stewart, Chater & Brown, 2009)
  ○ Research question: 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. Further, we did research on graph literacy and numeracy skills.
  ○ Designed and ran experiments for scientists including Prof Mirta Galesic (Santa Fe), Jonathan Nelson (Surrey) & Bjoern Meder (MPI)

Professional Experience

Jan 2016–present	**Founder & Director at Brainpool AI**, London, UK. Brainpool AI 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 more than 240 academics worldwide spanning PhDs, post-docs and professors who specialise in machine learning and data science fields
  ○ The consultancy provides machine learning and AI solutions to organizations in the private sector and public sector such as NHS hospitals and goverment departments
  ○ Partnerships with: IBM UK, Kx Systems, Facebook Oculus Rift, Center for Data Science NYU. Example Clients: Sainsburys, NHS hospitals, major investment banks, FocalData, ICS, MindShare, Draper and Dash, Bibblio, Blis, Suez, IAG, Happiest Baby, etc.

2014	**Behavioural Insights Consultant**, *jbw*, London, UK. Advised on behavioural insights techniques to increase voluntary payment behaviour of debts to to prevent law enforcement.

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

Forthcoming

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. 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.

4. **Parpart, P.**, & Schulz, E. (forthcoming), Is covariance ignorance responsible for the success of heuristics?

5. **Parpart, P.**, & Love, B. (forthcoming), Reversing less-is-more effects.

2018

6. **Parpart, P.**, & Schulz, E. (2018), The role of covariance in heuristics suggests a reinterpretation of Take-The-Best's success. *Proceedings of the 40th Annual Meeting of the Cognitive Science Society. Austin, TX: Cognitive Science Society.*

7. **Parpart, P.** (2018), Reinterpreting heuristics as Bayesian inference. *Proceedings of the 40th Annual Meeting of the Cognitive Science Society. Austin, TX: Cognitive Science Society.*

2017

8. **Parpart, P.**, Jones, M. & Love, B.C. (2017), Heuristics as Bayesian inference under extreme priors. *Cognitive Psychology*, Link to PDF

9. **Parpart, P.** (2017). Why less can be more: A Bayesian framework for heuristics. Thesis, University College London, *Link*

2016

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*

2015

11. **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

12. **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.*

13. **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*

14. **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*

2014

15. **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*

16. **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*

17. **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*

18. **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*

2013

19. **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

20. **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

2011

21. **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*

22. 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*

23. 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.*

2010

24. **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*

2009

25. 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

26. Cokely, E.T., **Parpart, P.**, & Schooler, L.J. (2009), Mechanisms of superior judgment: Ironic effects of cognitive control. *Talk at the 23rd Annual Meeting of the Society for Judgment and Decision-Making, Boston, MA.*

27. 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*

28. 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, Reverto, Italy*

29. 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.*

30. **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 Unvirsity, 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 Unvirsity, 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

Awards & Research Grants

2017	**Teaching Awards for Outstanding Reseacher 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 Undergrdaute 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 - August 2017	**Teaching Fellow**, *Msc Cognitive and Decision Sciences*, see description of the modules taught above, Department of Experimental Psychology, UCL.
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. |

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)**