Curriculum Vitae

David Peebles PhD AFBPsS FHEA

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Department of Behavioural and Social Sciences,
University of Huddersfield,
Queensgate, Huddersfield, HD1 3DH, UK

Email: d.peebles@hud.ac.uk
Tel: (+44) 01484 473620
Fax: (+44) 01484 473760

Academic positions

- 2013–present **Associate Director, Centre for Applied Psychological and Health Research**. Department of Behavioural & Social Sciences, University of Huddersfield.
- 2012–present **Reader in Cognitive Science**. Department of Behavioural & Social Sciences, University of Huddersfield.
- 2002–2012 **Senior Lecturer in Cognitive Psychology**. Department of Behavioural & Social Sciences, University of Huddersfield.
- 1999–2002 **Postdoctoral Associate**. ESRC Centre for Research in Development, Instruction and Training (CREDIT), School of Psychology, University of Nottingham.
- 1997–1999 **Postdoctoral Associate**. *Diagrammatic Reasoning and Knowledge Acquisition project.* AI Group, School of Psychology, University of Nottingham.
- 1996–1997 **School Instructor**. School of Psychology, University of Birmingham.

Education

- 1993–1997 **PhD Cognitive Science**. University of Birmingham. Awarded February, 1998.
- 1992–1993 **MSc Cognitive Science**. University of Birmingham. Awarded December, 1993.
- 1989–1992 **BA (Hons) Philosophy & Artificial Intelligence**. 1st Class. Middlesex University. Awarded July, 1992.

Professional activities and esteem

- Editorial board member, Journal of Experimental Psychology: Applied (2016–present).
- Chartered Psychologist and Associate Fellow, British Psychological Society (2001-present).
- Associate Editor, Frontiers in Cognitive Science (2015–present).

- Review Editor, Frontiers in Cognitive Science (2010–2015).
- Editorial board member, Computational Cognitive Science (2012–present).
- Editor, Quarterly Newsletter of the Society for the Study of Artificial Intelligence and Simulation of Behaviour (AISBQ). (2010–2014).
- Member, Cognitive Science Society (1999–present).
- Fellow, Higher Education Academy (2011–present).
- Chair, 34th Annual Meeting of the Cognitive Science Society (CogSci), Sapporo, Japan, 2012.
- Chair, 9th International Conference on Cognitive Modeling (ICCM), Manchester, UK.
- Committee member, Society for the Study of Artificial Intelligence and Simulation of Behaviour (2009–2014).
- Steering Committee member, International Conference on Cognitive Modeling (2007–present).
- Recipient of the 2004 Human Factors and Ergonomics Society's *Jerome H. Ely Human Factors Article Award* for the most outstanding article in the 2003 volume of *Human Factors*.
- External PhD examiner, University of Sussex (2011) and Robert Gordon University (2013).
- Ad hoc rewiewer for leading international journals; Cognitive Science, Human Factors, Journal of Experimental Psychology: Learning, Memory and Cognition, Journal of Experimental Psychology: Applied, Frontiers in Cognitive Science, Current Directions in Psychological Science, Quarterly Journal of Experimental Psychology, Topics in Cognitive Science, The International Journal of Human-Computer Studies, Computational and Mathematical Organization Theory, Psychological Research, and Interacting with Computers.
- Ad hoc reviewer for the major UK science funding bodies; the Economic and Social Research Council, the Engineering and Physical Sciences Research Council, and the Royal Society, as well as the Israel Science Foundation, and the US National Science Foundation.

Publications

- **Peebles, D.**, & Ali, N. (2015). Expert interpretation of bar and line graphs: The role of graphicacy in reducing the effect of graph format. *Frontiers in Psychology*, 6:1673. doi: 10.3389/fpsyg.2015.01673.
- **Peebles, D.**, & Cooper, R. P. (2015). Thirty years after Marr's Vision: Levels of analysis in cognitive science. *Topics in Cognitive Science*, *7*, 187–190.
- Cooper, R. P., & **Peebles, D.** (2015). Beyond single-level accounts: The role of cognitive architectures in cognitive scientific explanation. *Topics in Cognitive Science*, *7*, 243–258.
- **Peebles, D.** & Ramduny-Ellis, D. (2014). Computational modelling of human performance with unmanned autonomous systems using the ACT-R cognitive architecture. Unpublished report for Dstl funded *Autonomous Systems Underpinning Research* (ASUR) programme project.
- **Peebles, D.** & Jones, C. (2014). A model of object location memory. In P. Bello, M. Guarini, M. McShane, & B. Scassellati (Eds.), *Proceedings of the 36th Annual Conference of the Cognitive Science Society* (pp. 2747–2752). Austin, TX: Cognitive Science Society.

- Ali, N. & **Peebles, D.** (2013). Reactivity effects of concurrent verbalisation during a graph comprehension task. In M. Knauff, M. Pauen, N. Sebanz, & I. Wachsmuth (Eds.), *Proceedings of the 35th Annual Conference of the Cognitive Science Society* (pp. 1720–1725). Austin, TX: Cognitive Science Society.
- **Peebles, D.** (2013). Strategy and pattern recognition in expert comprehension of 2 x 2 interaction graphs. *Cognitive Systems Research*, 24, 43–51.
- Ali, N. & **Peebles, D.** (2013). The effect of Gestalt laws of perceptual organisation on the comprehension of three-variable bar and line graphs. *Human Factors*, 55 (1), 183–203.
- van Rijn, H., Rußwinkel, N., & **Peebles, D.** (2013). Editorial. *Cognitive Systems Research.* 24. 1.
- **Peebles, D.** (2012). A cognitive architecture-based model of graph comprehension. In N. Rußwinkel, U. Drewitz, J. Dzaack, & H. van Rijn, *Proceedings of the 11th International Conference on Cognitive Modeling*, Berlin, Germany.
- Bonner, J., Ramduny-Ellis, D., & **Peebles, D.** (2012). Making audience experiences more meaningful and emotionally engaging through mixed visual and audio media. *Electronic Visualisation and the Arts (EVA 2012)*, London, UK. British Computer Society, London.
- **Peebles, D.** (2011). The effect of graphical format and instruction on the interpretation of three-variable bar and line graphs. Unpublished project report submitted to the Higher Education Academy Psychology Network
- Ali, N. & **Peebles, D.** (2011). The different effects of thinking aloud and writing on graph comprehension. In L. Carlson, C. Holscher, & T. Shipley (Eds.). *Proceedings of the 33rd Annual Conference of the Cognitive Science Society.* Austin, TX: Cognitive Science Society.
- **Peebles, D.**, Cooper, R. P., & Howes, A. (2011). Editorial. *Cognitive Systems Research.* 12. 83.
- Ali, A., Ingleby, M., & **Peebles, D.** (2011). Anglophone perceptions of Arabic syllable structure. In C. E. Cairns and E. Raimy (Eds.) *Handbook of the Syllable*, pp. 329–349. Leiden, The Netherlands: Brill.
- **Peebles, D.** & Banks, A. P. (2010). Modelling dynamic decision making with the ACT-R cognitive architecture. *Journal of Artificial General Intelligence*, 2(2), 52–68.
- Davies, C. & **Peebles, D.** (2010). Spaces or scenes: Map-based orientation in urban environments. *Spatial Cognition and Computation*, 10, 135–156.
- Howes, A., **Peebles, D.** & Cooper, R.P. (Eds). (2009). *Proceedings of the 9th International Conference on Cognitive Modeling* (ICCM2009). Manchester, UK.
- **Peebles, D.** & Ali, N. (2009). Differences in comprehensibility between three-variable bar and line graphs. In N. Taatgen, H. van Rijn, J. Nerbonne & L. Schomaker (Eds.). *Proceedings of the 31st Annual Conference of the Cognitive Science Society.* Austin, TX: Cognitive Science Society.
- **Peebles, D.** & Davies, C. (2009). *A process model of map-based orientation in urban environments.* Unpublished project report submitted to the Ordnance Survey.
- **Peebles, D.** (2008). The effect of emergent features on judgments of quantity in configural and separable displays. *Journal of Experimental Psychology: Applied*, 14, 85–100.
- Cox, A. L. & **Peebles, D.** (2008). Cognitive Modelling in HCI Research. In P. A. Cairns, & A. L. Cox. (Eds.). *Research Methods for Human Computer Interaction.* Cambridge. Cambridge University Press.

- **Peebles, D.**, Davies, C., and Mora, R. (2007). Effects of geometry, landmarks and orientation strategies in the 'drop-off' orientation task. In S. Winter, M. Duckham, L. Kulik, & B. Kuipers (Eds). *Spatial Information Theory*. Springer.
- Davies, C., & **Peebles, D.** (2007) Strategies for orientation: The role of 3D landmark salience and map alignment. In *Proceedings of the 29th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
- Ropar, D.*, & **Peebles, D.** (2007). Sorting preference in children with autism: The dominance of concrete features. *Journal of Autism and Developmental Disorders*, 37, 270–280.
- Davies, C., Mora, R. and **Peebles, D.** (2006) Isovists for orientation: Can space syntax help us predict directional confusion? In *Proceedings of the 'Space Syntax and Spatial Cognition' workshop, Spatial Cognition* 2006, Bremen, Germany, 24 September 2006.
- **Peebles, D.** & Cox, A.L. (2006) Modelling interactive behaviour with a rational cognitive architecture. In Zaphiris, P. & Kurniawan, S. (Eds.). *Human Computer Interaction Research in Web Design and Evaluation*. London. Idea Group Inc. Reprinted in E. Szewczak. (Ed.). (2008). *Selected Readings on the Human Side of Information Technology*. IGI Global.
- **Peebles, D.**, & Bothell, D. (2004). Modelling performance in the Sustained Attention to Response Task. In M. Lovett, C. D. Schunn, C. Lebiere & P. Munro (Eds.). *Proceedings of the 6th International Conference on Cognitive Modeling*. Mahwah , NJ : Lawrence Erlbaum.
- **Peebles, D.** (2004). Distortions of perceptual judgement in diagrammatic representations. In K. Forbus, D. Gentner & T. Regier (Eds.). *Proceedings of the 26th Annual Conference of the Cognitive Science Society*. Mahwah , NJ : Lawrence Erlbaum.
- **Peebles, D.**, & Cheng, P. C.-H. (2003). Modeling the effect of task and graphical representation on response latency in a graph reading task. *Human Factors*, 45, 28–46. *Winner of the Jerome H. Ely Human Factors Article Award for the most outstanding article in the 2003 volume of Human Factors*.
- **Peebles, D.**, & Cheng, P. C.-H. (2002). Extending task analytic models of graph-based reasoning: A cognitive model of problem solving with Cartesian graphs in ACT-R/PM. *Cognitive Systems Research*, 3, 77–86.
- **Peebles, D.**, & Cheng, P. C.-H. (2001). Graph-based reasoning: From task analysis to cognitive explanation. In J. D. Moore & K. Stenning. (Eds.). *Proceedings of the 23rd Annual Conference of the Cognitive Science Society*. Mahwah , NJ : Lawrence Erlbaum.
- **Peebles, D.**, & Cheng, P. C.-H. (2001). Extending task analytic models of graph-based reasoning: A cognitive model of problem solving with Cartesian graphs in ACT-R/PM. In E. M. Altmann, A. Cleermans, C. D. Schunn & W. D. Gray. (Eds.). *Proceedings of the 4th International Conference on Cognitive Modeling*. Mahwah , NJ : Lawrence Erlbaum.
- **Peebles, D.** (2000). Review of The MIT Encyclopedia of the Cognitive Sciences. *Perception*, 29 (5), 628–629..
- **Peebles, D.**, Cheng, P. C.-H., & Shadbolt, N. R. (1999). Multiple processes in graph-based reasoning. In M. Hahn, & S. C. Stoness (Eds.). *Proceedings of the 21st Annual Conference of the Cognitive Science Society*. Mahwah , NJ : Lawrence Erlbaum.
- Cupit, J., Shadbolt, N., Cheng, P. C.-H., & **Peebles, D.** (1999). Compiling ontologies into structured views and interviews: The design of a graph drawing tool for knowledge elicitation. *Twelfth Workshop on Knowledge Acquisition, Modeling and Management*, Banff , Alberta , Canada (KAW'99).

- **Peebles, D.** & Lamberts, K. (1999). A connectionist model of categorization response times. In D. Heinke, G. W. Humphreys, & A. Olson. (Eds.), *Connectionist Models in Cognitive Neuroscience*. London , Springer-Verlag.
- **Peebles, D.** (1997). *The effect of stimulus frequency on classification accuracy and response time*. Unpublished doctoral dissertation. University of Birmingham, Birmingham, 1997.

Research degree supervision

- PhD
  - **Nadia Ali**. "The interaction of Gestalt laws of perceptual organisation and task demands on the comprehension of three-variable bar and line graphs". Awarded July, 2011.
  - **Emma Turley**. "A phenomenological study of the experience of bondage, discipline, dominance & submission, and sadism & masochism (BDSM)". Awarded March, 2012.
  - **David Dickins**. "Stimulus equivalence: A laboratory artefact of the heart of language?". Awarded January, 2016.
  - **Corinna Jones**. "The mental representation of common and decimal fractions". Ongoing.
  - **Kirstie-Jayne Turner**. "Not too fast but furious: The effects of differing types of media on event related potentials". Ongoing.
  - **Matthew Pears**. "Head mounted displays and interactive virtual reality therapy (IVRT): Systematic assessment with multimodal measures - enhancing symptom reduction in higher levels of anxiety/phobia". Ongoing
  - **Younis Hussain** (School of Education and Professional Development). "The relative effect of attitude and working memory capacity on academic achievement in GCSE physics". Ongoing.
  - **Mohammad Mayat** (School of Computing and Engineering). Title: "User perception of autonomic road transport systems". Ongoing.
- MRes
  - **Joseph Keeley**. "Visual and Auditory Recognition Memory: An Examination of the Impact of Emotional Valence and Arousal Words on Ageing and Remembering". Awarded May, 2013.
  - **Emily Brown**. "Anxiety and perception of pain: The role of personality and distractor type". Awarded April, 2014.
  - **Lee Priest**. "The effect of physical weight and stimulus spatial location on lexical decision: Implications for embodied cognition". Awarded April, 2015.
  - **Alastair Broadhead**. "Creativity and embodied fluid movements". Awarded January, 2016.
  - **Momna Sajjid**. "The lived experiences of partners of individuals with stroke and aphasia". Submitted.