Casimir Ludwig

University of Bristol School of Psychological Science
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Homepage: https://casludwig.github.io/

Academic qualifications

PhD Experimental Psychology, University of Bristol, 2003.

Thesis title: Stimulus-driven and goal-driven control over visual selection.

M.A. Neuropsychology (distinction), Radboud University Nijmegen, 1999.

Employment

Professor of Cognitive Science, School of Psychological Science, University of Bristol, August 2023.

Reader in Experimental Psychology (Associate Professor), School of Psychological Science, University of Bristol, August 2012–July 2023 (proleptic appointment).

EPSRC Advanced Research Fellow (promoted to Senior Research Fellow in 2011), School of Experimental Psychology, University of Bristol, March 2008–February 2013.

Research Associate (promoted to Research Fellow in 2006) School of Experimental Psychology, University of Bristol, November 2004–February 2008.

Post-doctoral Research Assistant, School of Experimental Psychology, University of Bristol, November 2002–October 2004.

Peer-reviewed publications

Ludwig, C.J.H., Stuchlý, E., & Malhotra, G. (2025). Grounding computational cognitive models. *Psychological Review*. doi:10.1037/rev0000533.

Garibbo, M., Ludwig, C.J.H., Lepora, N.F., & Aitchison, L. (2025). Relating human error-based learning to modern deep RL algorithms. *Neural Computation*, *37*, 128–159, doi:10.1162/neco-a-01721.

Han, Q., Quadflieg, S., & Ludwig, C.J.H. (2023). Decision avoidance and post-decision regret: a systematic review and meta-analysis. *PLoS ONE*, *18*(10), e0292857, doi:10.1371/journal.pone.0292857.

Hadjipanayi, V., Ludwig, C.J.H., & Kent, C. (2023). Graded prioritisation of targets in search: Reward diminishes the low prevalence effect. *Cognitive Research: Principles and Implications*, *8*, 52, doi:10.1186/s41235-023-00507-9.

Ez-zizi, A., Farrell, S., Leslie, D., Malhotra, G., & Ludwig, C.J.H. (2023). Reinforcement learning under uncertainty: Expected versus unexpected uncertainty and state versus reward uncertainty. *Computational Brain & Behavior*, doi:10.1007/s42113-022-00165-y.

Montera, M.L., Bowers, J., Ponte-Costa, R., Ludwig, C.J.H., & Malhotra, G. (2022). Lost in latent space: Examining failures of disentangled models at combinatorial generalisation. *Neural Information Processing Systems*, *35*, 10136-10149.

Hadjipanayi, V., Shimi, A., Ludwig, C.J.H., & Kent, C. (2022). Unequal allocation of overt and covert attention in Multiple Object Tracking. *Attention, Perception, & Psychophysics*, *84*, 1519–1537, doi:10.3758/s13414-022-02501-7.

Santangelo, A.P., Ludwig, C.J.H., Navajas, J., Sigman, M., & Leone, M.J. (2022). Background music changes the policy of human decision-making: Evidence from experimental and drift-diffusion model-based approaches on different decision tasks. *Journal of Experimental Psychology: General*, *151*, 2222–2236, doi: 10.1037/xge0001189.

Stewart, E.E.M., Ludwig, C.J.H., & Schütz, A.C. (2022). Humans represent the precision and utility of information acquired across fixations. *Scientific Reports*, *12*(1): 1–13, doi:10.1038/s41598-022-06357-7.

Sullivan, B., Ludwig, C.J.H., Damen, D., Mayol-Cuevas, W., & Gilchrist, I.D. (2021). Look-ahead fixations during visuomotor behavior: Evidence from assembling a camping tent. *Journal of Vision*, *21*: 13, doi: 10.1167/jov.21.3.13.

Blything, R., Biscione, V., Vankov, I., Ludwig, C.J.H., & Bowers, J.S. (2021). The human visual system and CNNs can both support robust online translation tolerance following extreme displacements. *Journal of Vision*, *21*: 9, doi: 10.1167/jov.21.2.9.

Montera, M.L., Ludwig, C.J.H., Ponte-Costa, R., Malhotra, G., Bowers, J. (2021). The role of disentanglement in generalisation. *International Conference on Learning Representations*, openreview.net/forum?id=qbH974jKUVy

Attwood, A.S., Ludwig, C.J.H., Penton-Voak, I.S., Poh, J., Kwong, A.S.F., & Munafò, M.R. (2021). Effects of state anxiety on gait: A 7.5% carbon dioxide challenge study. *Psychological Research*, doi: 10.1007/s00426-020-01393-2.

Fradkin, I., Ludwig, C., Elder, E., & Huppert, J.D. (2020). Doubting what you already know: uncertainty regarding state transitions is associated with obsessive compulsive symptoms. *PLoS Computational Biology*, *16*(2): e1007634, doi: 10.1371/journal.pcbi.1007634.

Xiong, C., Ceja, C., Ludwig, C.J.H., & Franconeri, S. (2020). Biased Average Position Estimates in Line and Bar Graphs: Underestimation, Overestimation, and Perceptual Pull. *IEEE Transactions on Visualization and Computer Graphics*, *26*, 301–310, doi: 10.1109/TVCG.2019.2934400.

Jang, Y., Sullivan, B., Ludwig, C., Gilchrist, I., Damen, D., & Mayol-Cuevas, W. (2019). EPIC-tent: An egocentric video dataset for camping tent assembly. *ICCV Workshop on Egocentric Perception, Interaction and Computing*.

Malhotra, G., Leslie, D.S., Ludwig, C.J.H., & Bogacz, R. (2018). Time-varying decision boundaries: insights from optimality analysis. *Psychonomic Bulletin & Review*, *25*, 971–996, doi: 10.3758/s13423-017-1340-6.

Ludwig, C.J.H., Alexander, N., Howard, K.L., Jedrzejewska, A.A., Mundkur, I., Redmill, D.W. (2018). The influence of visual flow and perceptual load on locomotion speed. *Attention, Perception, & Psychophysics*, *80*, 69–81, doi: 10.3758/s13414-017-1417-3.

Mégardon, G., Ludwig, C.J.H., & Sumner, P. (2017). Trajectory curvature in saccade sequences: spatiotopic influences vs residual motor activity. *Journal of Neurophysiology*, *117*, 1310–1320, doi: 10.1152/jn.00110.2017.

Malhotra, G., Leslie, D.S., Ludwig, C.J.H., & Bogacz, R. (2017). Overcoming indecision by changing the decision boundary. *Journal of Experimental Psychology: General*, *146*, 776–805, doi: 10.1037/xge0000286.

Mason, A., Farrell, S, Howard-Jones, P., & Ludwig, C.J.H. (2017). The role of reward and reward uncertainty in episodic memory. *Journal of Memory and Language*, *96*, 62–77, doi: 10.1016/j.jml.2017.05.003.

Mason, A., Ludwig, C., & Farrell, S. (2017). Adaptive scaling of reward in episodic memory: A replication study. *Quarterly Journal of Experimental Psychology*, *70*, 2306–2318, doi: 10.1080/17470218.2016.1233439.

Ludwig, C.J.H., & Evens, D.R. (2017). Information Foraging for Perceptual Decisions. *Journal of Experimental Psychology: Human Perception & Performance*, *43*, 245-264, doi: 10.1037/xhp0000299.

Bowers, J.S., Vankov, I.I., & Ludwig, C.J.H. (2016). The visual system supports on-line translation invariance for object identification. *Psychonomic Bulletin & Review*, *23*, 432–438, doi: 10.3758/s13423-015-0916-2.

Ludwig, C.J.H., Davies, J.R., & Eckstein, M.P. (2014). Foveal analysis and peripheral selection during active visual sampling. *Proceedings of the National Academy of Sciences*, *111*(2), E291-E299, doi: 10.1073/pnas.1313553111.

Cassey, T.C., Evens, D.R., Bogacz, R., Marshall, J.A.R., & Ludwig, C.J.H. (2013). Adaptive Sampling of Information in Perceptual Decision-Making. *PLoS ONE*, *8*(11): e78993, doi: 10.1371/journal.pone.0078993.

Ludwig, C.J.H., Davies, J.R., & Gegenfurtner, K.R. (2012). A functional role for trans-saccadic luminance differences. *Journal of Vision*, *12*(13):14, 1-21, doi: 10.1167/12.13.14.

Ludwig, C.J.H., Farrell, S., Ellis, L.A., Hardwicke, T.E., & Gilchrist, I.D. (2012). Context-gated statistical learning and its role in visual-saccadic decisions. *Journal of Experimental Psychology: General*, *141*, 150-169, doi: 10.1037/a0024916.

Ludwig, C.J.H., & Davies, J.R. (2011). Estimating the growth of internal evidence guiding perceptual decisions. *Cognitive Psychology*, *63*, 61-92, doi: 10.1016/j.cogpsych.2011.05.002.

Etchells, P.J., Ludwig, C.J.H., Benton, C.P., & Gilchrist, I.D. (2011). Testing a simplified method for measuring velocity integration in saccades using a manipulation of target contrast. *Frontiers in Psychology*, *2*, 115, doi: 10.3389/fpsyg.2011.00115.

Ludwig, C.J.H. (2011). Saccadic decision-making. In S.P. Liversedge, I.D. Gilchrist, and S. Everling (Eds.), *The Oxford Handbook of Eye Movements*. Oxford: OUP, doi: 10.1093/oxfordhb/9780199539789.013.0023.

Farrell, S., Ludwig, C.J.H., Ellis, L.A., & Gilchrist, I.D. (2010). The influence of environmental statistics on inhibition of saccadic return. *Proceedings of the National Academy of Sciences*, *107*, 929-934, doi: 10.1073/pnas.0906845107.

Evens, D.R., & Ludwig, C.J.H. (2010). Dual-task costs and benefits in anti-saccade performance. *Experimental Brain Research*, *4*, 545-557, doi: 10.1007/s00221-010-2393-1.

Etchells, P.J., Benton, C.P., Ludwig, C.J.H., & Gilchrist, I.D. (2010). The target velocity integration function for saccades. *Journal of Vision*, *10*, 7, doi: 10.1167/10.6.7.

Ludwig, C.J.H. (2009). Temporal integration of sensory evidence for saccade target selection. *Vision Research*, *49*, 2764-2773, doi: 10.1016/j.visres.2009.08.012.

Ludwig, C.J.H., Farrell, S., Ellis, L.A., & Gilchrist, I.D. (2009). The mechanism underlying inhibition of saccadic return. *Cognitive Psychology*, *59*, 180-202, doi: 10.1016/j.cogpsych.2009.04.002.

Cooper, R.M., Rowe, A.C., Penton-Voak, I.S., & Ludwig, C.J.H. (2009). No reliable effects of emotional facial expression, adult attachment orientation, or anxiety on the allocation of visual attention in the spatial cueing paradigm. *Journal of Research in Personality*, *43*, 643-652, doi: 10.1016/j.jrp.2009.03.005.

Stephen H. Butler, Stephanie Rossit, Iain D. Gilchrist, Casimir J.H. Ludwig, Bettina Olk, Keith Muir, Ian Reeves, & Monika Harvey (2009). Non-lateralised deficits in anti-saccade performance in patients with hemispatial neglect. *Neuropsychologia*, *47*, 2488-2495. doi: 10.1016/j.neuropsychologia.2009.04.022.

Ludwig, C.J.H., Butler, S.H., Rossit, S., Harvey, M., & Gilchrist, I.D. (2009). Modelling contralesional movement slowing after unilateral brain damage. *Neuroscience Letters*, *452*, 1-4, doi: 10.1016/j.neulet.2009.01.033.

Skelton, R., Ludwig, C.J.H., & Mohr, C. (2009). A novel, illustrated questionnaire to distinguish projector and associator synaesthetes. *Cortex*, *45*, 721-729, doi: 10.1016/j.cortex.2008.02.006.

Farrell, S., & Ludwig, C.J.H. (2008). Bayesian and maximum likelihood estimation of hierarchical response time models. *Psychonomic Bulletin & Review*, *15*, 1209-1217, doi: 10.3758/PBR.15.6.1209.

Ludwig, C. J. H., Ranson, A., & Gilchrist, I. D. (2008). Oculomotor capture by transient events: A comparison of abrupt onsets, offsets, motion, and flicker. *Journal of Vision*, *8*, 11. doi: 10.1167/8.14.11.

Ludwig, C.J.H., Mildinhall, J.W., & Gilchrist, I.D. (2007). A population coding account for systematic variation in saccadic dead time. *Journal of Neurophysiology*, *97*, 795-805, doi: 10.1152/jn.00652.2006.

Ludwig, C.J.H., Eckstein, M.P., & Beutter, B.R. (2007). Limited flexibility in the filter underlying saccadic targeting. *Vision Research*, *47*, 280-288, doi: 10.1016/j.visres.2006.09.009.

Butler, S.H., Gilchrist, I.D., Ludwig, C.J.H., Muir, K., & Harvey, M. (2006). Impairments of oculomotor control in a patient with a right temporo-parietal lesion. *Cognitive Neuropsychology*, *23*, 990-999, doi: 10.1080/13594320600768847.

Ludwig, C.J.H., & Gilchrist, I.D. (2006). The relative contributions of luminance contrast and task demands on saccade target selection. *Vision Research*, *46*, 2743-2748, doi: 10.1016/j.visres.2006.02.012.

Ludwig, C.J.H., Gilchrist, I.D., McSorley, E., & Baddeley, R.J. (2005). The temporal impulse response underlying saccadic decisions. *The Journal of Neuroscience*, *25*, 9907-9912, doi: 10.1523/JNEUROSCI.2197-05.2005.

Peers, P.V., Ludwig, C.J.H., Rorden, C., Cusack, R., Bonfiglioli, C., Bundesen, C., Driver, J., Antoun, N., & Duncan, J. (2005). Attentional functions of parietal and frontal cortex. *Cerebral Cortex*, *15*, 1469-1484, doi: 10.1093/cercor/bhi029.

Ludwig, C.J.H., Gilchrist, I.D., & McSorley, E. (2005). The remote distractor effect in saccade programming: Channel interactions and lateral inhibition. *Vision Research*, *45*, 1177-1190, doi: 10.1016/j.visres.2004.10.019.

Ludwig, C.J.H., Gilchrist, I.D., & McSorley, E. (2004). The influence of spatial frequency and contrast on saccade latencies. *Vision Research*, *44*, 2597-2604, doi: 10.1016/j.visres.2004.05.022.

Ludwig, C.J.H., & Gilchrist, I.D. (2003). Goal-driven modulation of oculomotor capture. *Perception & Psychophysics*, *65*, 1243-1251, doi: 10.3758/BF03194849.

Ludwig, C.J.H. & Gilchrist, I.D. (2003). Target similarity affects saccade curvature away from irrelevant onsets. *Experimental Brain Research*, *152*, 60-69, doi: 10.1007/s00221-003-1520-7.

Ludwig, C.J.H. & Gilchrist, I.D. (2002). Measuring saccade curvature: A curve-fitting approach. *Behavior Research Methods, Instruments, and Computers*, *34*, 618-624, doi: 10.3758/BF03195490.

Ludwig, C.J.H. & Gilchrist, I.D. (2002). Stimulus-Driven and Goal-Driven Control over Visual Selection. *Journal of Experimental Psychology: Human Perception and Performance*, *28*, 902-912, doi: 10.1037/0096-1523.28.4.902.

Grants

Ludwig, C.J.H. (2021–2023). Likelihood-free dynamical models of sequential fixation control. *Leverhulme Trust Research Fellowship*, £50k.

Pearson, R., Lawlor, D., Ludwig, C., Skinner, A., Tilling, K., Caldwell, D., Culpin, I., & Jones, H. (2017-2022). Genetic, behavioural and cognitive mechanisms underpinning the association between mother and offspring mental health problems: mental (M) health (H) intergenerational transmission (INT) -(MHINT). *Horizon 2020 ERC*, £1.18m.

Mayol-Cuevas, W., Damen, D., Gilchrist, I., & Ludwig, C. (2016-2020). GLANCE: GLAnceable Nuances for Contextual Events. *Engineering and Physical Sciences Research Council*, £807k.

Bull, D., Burn, J., Canagarajah, N., Cuthill, I., Gilchrist, I., Ludwig, C., & Roberts, N. (2015–2020). Vision for the future. *Engineering and Physical Sciences Research Council*, £1.4m.

Gilchrist, I.D., Leslie, D., Baddeley, R., Bogacz, R., Farrell, S., Ludwig, C.J.H., & McNamara, J. (2011–2015). Decision-making in an unstable world. *Engineering and Physical Sciences Research Council*, £1.6m.

Ludwig, C.J.H., Burn, J.F., Leonard, U., & Bull, D.R. (2010–2014). Bristol Vision Institute Laboratory. *The Wellcome Trust*, equipment grant, £390k.

Ludwig, C.J.H. (2008–2013). Integrating 'when' and 'where' in models of saccade target selection. *Engineering & Physical Sciences Research Council*, Advanced Research Fellowship, £700k.

Ludwig, C.J.H. & Gilchrist, I.D. (2006–2007). The salience of luminance transients to the saccadic eye movement system. *Engineering & Physical Sciences Research Council*, £120k.

Farrel, S., Ludwig, C.J.H., Gilchrist, I.D., & Carpenter, R.H.S. (2006–2009). Modelling sequential effects in saccadic choice. *The Wellcome Trust*, £119k.

Rowe, A.C., Penton-Voak, I.S., & Ludwig, C.J.H. (2006–2009). Adult attachment and the perceptual processing of facial expressions of emotion. *Economic & Social Research Council*, £370k.

Ludwig, C.J.H. (2005). The perceptual template governing saccadic decisions. *Engineering & Physical Sciences Research Council*, Overseas Travel Grant, £6k.

Visiting positions

Visiting Scientist, University of Potsdam, SFB 1294 grant on Data Assimilation (Ralf Engbert & Sebastian Reich), 2018.

Visiting Scientist, Universidad Torcuato di Tella, Buenos Aires, Argentina, 2015.

Visiting Scientist, University of California Santa Barbara, US, 2005, 2011.

Medical Research Council—Cognition and Brain Sciences Unit, Summer Studentship, 1999.

Teaching

Undergraduate

Year 2 Brain & Cognition (2019–present).

Year 3 Contemporary Issues/Current Topics in Psychology (2013–present): seminar series on a variety of topics (e.g. perception, action, decision-making).

Year 3 Dissertation projects (2012–present).

Year 2 Biological Psychology (2012–2019).

Year 1 Biological Psychology (2012–2014).

Lab demonstrator throughout my undergraduate degree and PhD on units related to IT skills, research methods and statistics (1997–2002).

Post-graduate: MSc

Cognitive Psychology (MSc Conversion; 2025–).

Brain & Cognition (MSc Conversion; 2019–2021).

Dissertation projects (2012–present).

Biological Psychology (MSc Conversion; 2017–2019).

Academic careers sessions (2016–2018).

Neuropsychological Analysis Tools (2014–2017): Recording and analysing movements.

Generic Research Skills (2003–2016): Ethics; APA style; Academic careers.

Functional Neuroanatomy and Neuroscience Methods (2009–2010): Eye movements.

Foundations of Vision (2008–2009): Eye movements.

Research supervision and examination

PhD supervision

Georgine Keggin, 2025– (at Queen Mary University of London, co-supervision with Emma Stewart).

Michele Garibbo, 2020–2024 (co-supervisor, Wellcome Trust-funded).

Will Chapman, 2016–2023 (EPSRC-funded).

Veronika Hadjipanayi, 2019–2023 (co-supervisor).

Ilaria Costantini, 2018–2023 (co-supervisor, ERC-funded)

Qing Han, 2017–2022 (part UoB-funded).

Alice Mason, 2011–2016 (EPSRC-funded).

David Evens, 2009–2014 (EPSRC-funded).

Peter Etchells, 2007–2010 (co-supervisor).

MSc by Research supervision

Tom Hawkings, 2023–2024 (co-supervisor).

Erik Stuchlý, 2020–2021.

Joe Wilson, 2019–2021 (co-supervisor).

Examination

PhD examination: University of Queensland; Humboldt Universität zu Berlin; University of Cardiff; University of Potsdam; Université de Lille; University of Oxford; University of Birmingham; 9 internal at University of Bristol.

MSc by Research examination: 4 internal.

Administration

Admissions Officer - UG Recruitment (2022–present).

Unit director year 2 / MSc Brain & Cognition (2019–present).

Year 2 coordinator (2019–2021).

Deputy School Education Director (PGT focus; 2016–2020).

Programme director MSc Research Methods (2014–2017).

Programme director Msc Neuropsychology (2013–2017).

Student Placement co-ordinator (2012–2020).

Unit director Biological Psychology (year 2 BSc 2013–2019; MSc Conversion 2017–2019).

Member of the Faculty of Engineering Ethics Committee (2009–2011).

Member of the Faculty of Science Human Research Ethics Committee (2004–2014).

Unit director year 1 Biological Psychology (2012–2013).

Invited talks at conferences/workshops

Keynote at 'Model-based Neuroscience' Summer School, Amsterdam, 2023; Workshop on 'From Peripheral to Transsaccadic and Foveal Perception', Rauischholzhausen, Germany, 2019; Workshop on 'Cognitive and Motor Processes in Visual Attention', Durham, UK, 2019; MRC Doctoral Training Programme workshop on 'Computational Modelling', UK, 2018; Royal Society meeting on 'Understanding images in biological and computer vision', UK, 2018; Workshop on 'Learning at the Interface of Vision and Oculomotor Control', Humboldt University Berlin, Germany, 2016; DSTL Knowledge Network Meeting, Winfrith Technology Centre, Winfrith, UK, 2008; AGM of the European Brain and Behaviour Society, Dublin, Ireland, 2005.

Invited seminars

SUNY Albany, 2024, USA; University of Amsterdam, 2023, Netherlands; University of Nottingham, 2023; University of Potsdam, Germany, 2022, 2017, 2012; Humboldt University Berlin, Germany, 2022, 2018; Paris Descartes University, France, 2017; University of Cardiff, UK, 2016; University of Bielefeld, Germany, 2016; Aston University, UK, 2015; Universidad Torcuato Di Tella, Buenos Aires, Argentina, 2015; University of Wales, Bangor, 2014; University of California Irvine, 2014; University of Southampton, UK, 2014; University of Giessen, Germany, 2009; University of Birmingham, UK, 2009; University of Strathclyde, UK, 2009; University of Geneva, Switzerland, 2008; University of Cardiff, UK, 2008; University of Leicester, UK, 2007; Smith-Kettlewell Eye Research Institute, US, 2005; NASA Ames Research Centre, US, 2005; University of Nottingham, 2003; Royal Holloway, University of London, UK, 2002; Medical Research Council – Cognition & Brain Sciences Unit, 2000.

Professional activity

External Examiner MSc Computational Neuroscience & Cognitive Robotics; MSc Brain Imaging and Cognitive Neuroscience; MSc Psychology at University of Birmingham (2019–2023).

Associate Editor of The Quarterly Journal of Experimental Psychology (2017–2020).

Member of the EPSRC college (2008–present).

Reviewer for *ACM Transactions on Applied Perception; Attention, Perception, & Psychophysics; Behavior Research Methods; Brazilian Journal of Medical and Biological Research; Cognition; Computational Brain & Behavior; Cortex; Ergonomics; Experimental Brain Research; Frontiers in Neuroscience; Journal of Cognitive Neuroscience; Journal of Experimental Psychology: General; Journal of Experimental Psychology: Human Perception & Performance; Journal of Mathematical Psychology; Journal of Neurophysiology; Journal of Neuroscience; Journal of Social and Personal Relationships; Journal of Vision; Nature Communications; Open Mind; Perception/iPerception; PLoS Computational Biology; PLoS ONE; Proceedings of the National Academy of Sciences; Proceedings of the Royal Society B: Biological Sciences; Psychological Review; Psychological Science; Psychonomic Bulletin & Review; Psychopharmacology; Quarterly Journal of Experimental Psychology; Spatial Vision; Vision Research; Visual Cognition.*

Reviewer for *Agence National Recherche; Biotechnology & Biological Sciences Research Council; British Academy; Economic & Social Research Council; Einstein Foundation; Engineering & Physical Sciences Research Council; European Research Council (ERC); Flanders Research Foundation (FWO); Help the Aged; The Leverhulme Trust; Medical Research Council; National Science Foundation; Swiss National Science Foundation; Wellcome Trust*.

Instructor on the Summer School on Computational Modelling of Cognition, 2014–present (bi-annual).

Member of Applied Vision Association, British Machine Vision Association, Society for Mathematical Psychology, Experimental Psychology Society.

Fellow of the Psychonomic Society.

Fellow of the Higher Education Authority

Languages: Dutch (native); English (native level); German (basic).

Appendix

Miscellaneous publications

Ludwig, C.J.H. (2002). Visual attention and cortical circuits. *Perception*, *31*, 513-514. (book review)

Peer-reviewed conference presentations

Malhotra, G., Stuchlý, E., & Ludwig, C. (2024). The best fit is not the best model: On the need for identifying how participants navigate the cognitive parameter space. *Annual meeting Psychonomic Society*.

Ludwig, C., Stuchlý, E., & Malhotra, G. (2023). Navigating cognitive parameter space. *Annual meeting Society for Mathematical Psychology*.

Stuchlý, E., Ludwig, C., & Malhotra, G. (2022). Testing the optimisation hypothesis by tracking changes in decision strategy in a reward maximisation task. *Annual meeting Society for NeuroEconomics*.

Garibbo, M., Ludwig, C., Lepora, N., & Aitchison, L. (2022). What deep reinforcement learning tells us about human motor learning and vice-versa. *Cold Spring Harbor Laboratory meeting: From Neuroscience to Artificially Intelligent*.

Stuchlý, E., Malhotra, G., & Ludwig, C. (2022). Defining one's boundaries: Exploration of the decision threshold parameter space during a reward maximisation task. *Annual meeting Society for Mathematical Psychology* (virtual).

Chapman, W., & Ludwig, C. (2022). The effects of perceptual uncertainty on reach to grasp movements. *Annual Meeting Vision Sciences Society*.

Hadjipanayi, V., Ludwig, C.J.H., & Kent, C. (2021). Unequal allocation of spatial attention in Multiple Object Tracking. *European Conference on Visual Perception* (virtual).

Stuchlý, E., Ludwig, C., Malhotra, G. (2021). Not great, not terrible: A reward "landscape" analysis of time-varying decision thresholds. *Annual meeting Society for Mathematical Psychology* (virtual).

Garibbo, M., Ludwig, C., Lepora, N., & Aitchison, L. (2021). What can deep reinforcement learning tell us about human motor learning and vice-versa? *Neuromatch Conference 4* (virtual).

Stewart, E.E.M., Ludwig, C.J.H., Schütz, A.C. (2021). Humans retain a representation of information acquired across fixations. *TeaP* (Tagung Experimentell Arbeitender Psychologen; virtual).

Montero, M.L., Ponte-Costa, R., Bowers, J.S., Ludwig, C., Malhotra, G. (2020). Perceptual front-ends for decision-making. *Annual meeting Society for Mathematical Psychology* (virtual).

Stewart, E.E.M., Ludwig, C., Schütz, A.C. (2020). Humans are more confident for items they have fixated before. *Annual meeting Vision Sciences Society* (virtual).

Hadjipanayi, V., Kent, C., Ludwig, C. (2020). Eye movements during unequal attention splitting in a multiple object tracking task. *Meeting of the Experimental Psychology Society* (virtual).

Han, Q., Ludwig, C.J.H., Quadflieg, S. (2020). Decision Avoidance and Regret: A systematic review and meta-analysis. *Meeting of the Experimental Psychology Society*.

Blything, R. Vankov, I., Ludwig, C.J.H., & Bowers, J.S. (2019). *Conference on Cognitive Computational Neuroscience*.

Sullivan, B., Doughty, H., Mayol-Cuevas, W., Damen, D., Ludwig, C., & Gilchrist, I. (2019). Predicting self-rated uncertainty from eye movements in a natural task. *European Conference on Visual Perception*.

Blything, R. Vankov, I., Ludwig, C.J.H., & Bowers, J.S. (2019). Translation tolerance in vision. *Proceedings of the Cognitive Science Society*.

Ludwig, C.J.H., Trukenbrod, H.A., Engbert, R. (2019). Temporal control in modelling eye fixations. *European Conference on Eye Movements*.

Ludwig, C.J.H., Trukenbrod, H.A., Engbert, R. (2019). Temporal control in modelling eye fixations. *Annual meeting Society for Mathematical Psychology*.

Xiong, C., Ceja, C.R., Ludwig, C., & Franconeri, S. (2019). Attraction and response probe similarity effects in a multiple ensemble judgment task. *Annual meeting Vision Sciences Society*.

Sullivan, B., Doughty, H., Mayol-Cuevas, W., Damen, D., Ludwig, C., & Gilchrist, I. (2018). Detecting uncertainty while assembling a camping tent. *European Conference on Visual Perception*.

Malhotra, G., Ludwig, C., & Gilchrist, I. (2017). Distinguishing between evidence accumulation and temporal probability summation in perceptual decision making. *European Conference on Visual Perception*.

Ludwig, C., Alexander, N., Mundkur, I., & Redmill, D. (2017). The interaction of visual flow and perceptual load in the control of locomotion speed. *European Conference on Visual Perception.*

Sullivan, B., Ludwig, C., Gilchrist, I., Damen, D., Mayol-Cuevas, W. (2017). Predicting eye and head coordination while looking and pointing. *European Conference on Visual Perception.*

Malhotra, G., Ludwig, C., & Gilchrist, I. (2017). Distinguishing between evidence accumulation and temporal probability summation in perceptual decision making. *Annual meeting Society for Mathematical Psychology.*

Ludwig, C.J.H., Stothart, G., Hedge, C., & Skinner, A. (2015). Control of fixation duration by foveal and peripheral evidence. *European Conference on Eye Movements.*

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