

EPS

Experimental
Psychology
Society

**ESSEX
MEETING**

1 – 3 July 2026



Open exchange of new ideas is central to EPS meetings. To foster up-to-date discussion, presenters are mandated to report work that is not yet published. We ask that attendees respect this mandate. Please do not record or publish presented material (e.g., via Bluesky or Facebook) without the presenter's permission. To remove any ambiguity regarding permission, this programme now includes a symbol next to every abstract (the hashtag shown on this page), where the presenter has agreed permission for their work to be shared on social media. Where no symbol is shown for a given presentation, there should be absolutely no filming, pictures, or social media of any kind. For explicit guidance on reporting at EPS meetings, please refer to the EPS handbook.



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Voluntary Registration Fee, please
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A scientific meeting will be held at the University of Essex, Essex Business School, Colchester, CO4 3SQ, between Wednesday 1st July – Friday 3rd July 2026.

Parallel sessions are to be held in EBS 2.34 and EBS 2.50, with Prize talks in EBS 2.2. The poster session and accompanying reception is in Essex Business School, rooms 2.65 and 2.66.

The local organiser is Maria Laura Filippetti.

EPS 80th Anniversary Symposium

Where is experimental psychology now, and where will it be at 100?

Wednesday 1st July, 1.30pm – 5.00pm

Organised by Asifa Majid.

15th EPS Frith Prize Talk

Wednesday 1st July, 5.15pm

Perceiving the real and the supernumerary body.

Denise Cadete, Birkbeck, University of London

33rd EPS Prize Lecture Symposium

Advances in Applied Face Identification: Cognitive Mechanisms, AI Tools and Applied Challenges.

Thursday 2nd July, 2.00pm – 5.30pm

Organised by Markus Bindemann.

33rd EPS Prize Lecture

Thursday 2nd July, 5.45pm

Eyewitness identification in the dock - and what memory models can do about it.

Melissa Colloff, University of Birmingham

Poster Session

The poster session is to be held on Wednesday 1st July between 6.15pm and 7.30pm in the Essex Business School, rooms 2.65 and 2.66, with an accompanying wine reception.

Conference Dinner

The conference dinner for EPS Essex will be held on 2nd July from 7:30pm at Church Street Tavern, 3 Church Street, Colchester, Essex, CO1 1NF. The Society has arranged a bus to take attendees from campus to the conference dinner, as well as returning attendees to campus after the dinner, if needed.

To reserve your place, [please complete the form on this webpage](#). This form will be available until 5pm (UK time) on Monday 22nd June, or until all spaces have been filled (if this is earlier than 22nd June).

For more details on how to book a place at the conference dinner, please see page 88.

START OF PARALLEL SESSIONS

Session A – EBS 2.34

- 12:00** **Alejandro Estudillo** (Bournemouth University) The effect of feature-focusing instructions on face matching for Asian, Black, and White faces.
- 12:15** **Edwin Burns, Katherine Maw and Geoff Beattie** (Swansea University, University of Salford, Edge Hill University) Excluded developmental prosopagnosia is associated with objective impairments and self-reported differences in own and family identification.
- 12:30** **Niall Brenock, Kristen Baker and Markus Bindemann** (Sponsor: Markus Bindemann) (University of Kent) Choice blindness for face identification decisions.
- 12:45** **Rachel Bennetts, Andrea Petrova and Sarah Bate** (Brunel University of London, Bournemouth University) Beyond Words: Famous face recognition difficulties in developmental dyslexia.
- 13:00** **Tea / Coffee**

START OF PARALLEL SESSIONS

Session B – EBS 2.50

- 12:00** **Amy Hollingworth, Sheina Orbell and Silke Paulmann** (Sponsor: Silke Paulmann) (University of Essex, Essex ESNEFT Psychological Research Unit for Behaviour, Health and Wellbeing) In safe hands: The effects of a warm voice on listener wellbeing, perceptions and engagement in healthcare.
- 12:15** **Daniel Kennedy-Higgins** (King's College London) Investigating the effects and interactions of motivation, task difficulty and feedback usefulness in adaptation to distorted speech.
- 12:30** **Justin Lo** (Sponsor: Nadine Lavan) (Lancaster University) Tracking voice identity perception in authentic vs voice-converted speech.
- 12:45** **Victor Rosi, Jenny Xuechen Zhou and Carolyn McGettigan** (Sponsor: Carolyn McGettigan) (University College London) Voice identity and social evaluation modulate voice pitch convergence during synchronous speech.
- 13:00** **Tea / Coffee**

Session A – EBS 2.34

EPS 80th Anniversary Symposium

Where is experimental psychology now, and where will it be at 100?

Organised by Asifa Majid.

- 13:30** **Robert Logie** (University of Edinburgh) Working Memory: Progress, Prospects, and Reinventing the Wheel.
- 14:00** **Anna Franklin** (University of Sussex) Colour as a Model System: Future directions in Experimental Psychology.
- 14:30** **Bhismadev Chakrabarti** (University of Reading) Mapping neurodiversity through the lens of experimental psychology: Past, present, and future.
- 15:00** **Tea / Coffee**
- 15:30** **Angela de Bruin** (University of York) Experimental Psychology in a Multilingual World.
- 16:00** **Daniel Yon** (Birkbeck University of London) The psychological reality of models.
- 16:30** **Sophie Scott** (University College London) You can't play 20 questions with nature and win? Has anything changed?
- 17:00** **Break**
- 17:15** **15th EPS Frith Prize Talk – EBS 2.2**
Denise Cadete, Birkbeck, University of London
Perceiving the real and the supernumerary body.
- 18:15** **Poster Session with accompanying wine reception.**
Essex Business School 2.65 and 2.66

Session B – EBS 2.50

- 13:30** **Abbie MacAskill, Emily Ives, Chad Dodson, Agnieszka Konopka and Travis Seale-Carlisle** (Sponsor: Rachel Swainson) (University of Aberdeen, University of Virginia, USA) Improving the diagnostic value of person descriptions.
- 14:00** ~~**Alex Jones and Jeremy Tree** (Swansea University) Why don't these tests correlate? Applying Bayesian generative models to face cognition.~~ **Withdrawn**
- 14:30** **Kyra Scott, Howard Bowman, Heather Flowe and Melissa Colloff** (Sponsor: Melissa Colloff) (University of Birmingham) Comparing human perception of facial-trait judgments for AI-synthetic and real faces.
- 15:00** **Tea / Coffee**
- 15:30** **Emily Mason, Mintao Zhao and Stephanie Rossit** (Sponsor: Stephanie Rossit) (University of East Anglia) Beyond Categorical Emotion Perception: Profiling human and AI perception of face, text and voice-based emotions.
- 16:00** **Ljubica Damjanovic, Panos Athanasopoulos, Chise Kasai and Asifa Majid** (Lund University, Sweden, Gifu University, Japan, University of Oxford) Shared structures, culture-specific distinctions: How cultural exposure shapes the representation of emotion.
- 16:30** **Zhenyang Xi and David Vinson** (Sponsor: Adam Parker) (University College London) Affect labelling intensifies, not regulates: A four-experiment cross-linguistic investigation.
- 17:00** **Break**
- 17:15** **15th EPS Frith Prize Talk – EBS 2.2**
Denise Cadete, Birkbeck, University of London
Perceiving the real and the supernumerary body.
- 18:15** **Poster Session with accompanying wine reception.**
Essex Business School 2.65 and 2.66

Session A - EBS 2.34

- 09:30** **Mahmoud Elsherif, James Smith-Spark, Linda Wheeldon and Steven Frisson** (University of Birmingham, University of Leicester, London South Bank University, University of Agder, Norway) Lexical precision moderates Stroop interference in dyslexia and stuttering.
- 09:45** **Faye Balcombe, Sarah White and Victoria McGowan** (Sponsor: Victoria McGowan) (University of Leicester) Using random forests to predict older and younger adults' lexical decision behaviour.
- 10:00** **Lior Weinreich, Louisa von Kontz, Gerd Schulte-Körne, Kristina Moll** (Ludwig Maximilian University of Munich, Germany) The R.A.B.B.I.T Project: Twofold intervention targeting reading and attentional difficulties.
- 10:15** **Martin Vasilev, Yuren Zhou and Adam Parker** (University College London) Do readers use word space information to guide their eyes to new lines of text?
- 10:30** **Tea / Coffee**
- 11:00** **Anna Klets, Aidan Horner and Scott Cairney** (Sponsor: Angela De Bruin) (University of York) Sleep preserves emotional salience and limits later updating of aversive memories.
- 11:15** **Chloe Brunskill and Aidan Horner** (Sponsor: Angela de Bruin) (University of York) Using narratives as a tool to boost learning.
- 11:30** **Darya Frank, Aysha Janjua, Zhiyun Qin, Jörn Alexander Quent, Gian Luca Lancia, Daniela Montaldi** (Sponsor: George Farmer) (University of Manchester, Fudan University, China, La Sapienza University of Rome, Italy) Probing behavioural tagging in humans: Spatial memory reveals novelty-driven retroactive enhancement.
- 11:45** **Vanessa Keller, Cameron Kyle-Davidson, Adam Curtis, Scott Cairney and Gareth Gaskell** (Sponsor: Angela De Bruin) (University of Oxford, University of York, University College London) The neurocognitive underpinnings of word-meaning priming: Evidence from an OPM-MEG study.
- 12:00** **Zara Bergström, Jonathan Fawcett, Benjamin Levy, John Bulevich, Chris Clark, Paula Hertel, Jenna Hu, Justin Hulbert, Madison LaSaga, Kevin van Schie, Colin MacLeod, Daniel Todorovic and The Memory Control Consortium** (University of Kent, Memorial University of Newfoundland, Canada, University of San Francisco, USA, Stockton University, USA, University of Calgary, Canada, Trinity University, USA, Bates College, USA, Tilburg University, The Netherlands, University of Waterloo, Canada) Controlling Unwanted Memories: A multisite registered replication of the Think/No-Think effect.
- 12:15** **EPS Business Meeting for Ordinary and Postgraduate Members**
EBS 2.34

Session B - EBS 2.50

- 09:30** **Fjorda Kazazi and Peter Howell** (Sponsor: Peter Howell) (University College London) Network models for assessing comorbidity between stuttering and ADHD.
- 09:45** **Katherine Dyke, Stephen Jackson, Valerie Brandt, Christine Conelea, Kevin Black, Donald Gilbert, John Piacentini, John Rothwell and Yulia Worbe** (Sponsor: Nicholas Holmes) (University of Nottingham, University of Nottingham Centre for Neuromodulation, Neurotechnology & Neurotherapeutics, University of Southampton, University of Minnesota, USA, Washington University in St. Louis, USA, Cincinnati Children's Hospital Medical Center, USA, UCLA Semel Institute for Neuroscience and Human Behavior, USA, University College London, Sorbonne University, France) Strength in Numbers: Multi Site data reveal delayed brain maturation in Tourette Syndrome and highlight the benefits of data pooling.
- 10:00** **Lydia Harrison, Elizabeth Sheppard and Lauren Marsh** (Sponsor: Gonzalo Urcelay) (University of Nottingham) The Double Empathy Problem: A developmental perspective.
- 10:15** **Chenji Gu, Tianyi Zhou, Xuechu Ding, Yinan Xia, Kexin Zhou, Hanyue Lei and Martin Vasilev** (Sponsor: Martin Vasilev) (University College London) Auditory distraction during reading in adults with and without ADHD: an eye-movement study.
- 10:30** **Tea / Coffee**
- 11:00** ~~**Shengtong Liu, Boris Otkhmezuri, Rebecca Elliott, and Karen Lander** (Sponsor: Karen Lander) (University of Manchester) Exploring the effect of a VR based social interaction task on face perception. *Withdrawn*~~
- 11:15** ~~**Yuanyi Peng, Alex Kafkas and Karen Lander** (Sponsor: Karen Lander) (University of Manchester) Eye movement patterns in static and dynamic context effects: A hidden-Markov Model study. *Withdrawn*~~
- 11:30** **Priyasha Khurana, Alessia Testa, Ermanno Quadrelli, Katie Daughters and Carina de Klerk** (Sponsor: Carina de Klerk) (University of Essex, University of Milano-Bicocca, Italy) Investigating the effect of social exclusion on selective facial mimicry in pre-schoolers.
- 11:45** **Sebastian Korb, Frank Russo and Antoni Rodriguez-Fornells** (Sponsor: Maria Filippetti) (University of Essex, Toronto Metropolitan University, Canada, University of Barcelona, Spain) The face of music: Sensitivity to music reward drives embodied facial responses to emotion in music.
- 12:00** **Patrick Haggard, Johanna Telek, Daisy Miao and Michaela Dimova** (University College London) Tactile spatial perception: Role of the receptor mosaic.
- 12:15** **EPS Business Meeting for Ordinary and Postgraduate Members**
EBS 2.34

Session A - EBS 2.34

33rd EPS Prize Symposium

Advances in Applied Face Identification: Cognitive Mechanisms, AI Tools and Applied Challenges.
Organised by Markus Bindemann.

- 14:00** **Heather Flowe, Amelia Kohl, Kyra Scott and Melissa Colloff** (University of Birmingham) A reduced interactive lineup procedure.
- 14:30** **Jessica De La Mare** (University of Stirling) Predictors of lineup accuracy in 2D and 3D displays: An individual differences approach.
- 15:00** **Travis Seale-Carlisle, Lauren Kelso and Chad Dodson** (University of Aberdeen, University of Virginia, USA) The eyewitness confidence-accuracy relationship can remain strong even in biased lineups.
- 15:30** **Tea / Coffee**
- 16:00** **Laura Mickes, Damien Wang, Xueqing Chen and Stewart Boogert** (University of Bristol) Using artificial intelligence in eyewitness identification research.
- 16:30** **Josh Davis, Katie Gray, Carl Bunce, Eilidh Noyes and Kay Ritchie** (University of Greenwich, University of Reading, University of Leeds, University of Lincoln) The super-recogniser advantage extends to the detection of AI-generated synthetic faces.
- 17:00** **Markus Bindemann** (University of Kent) Identifying faces from military images: A case study from World War II.
- 17:30** **Break**
- 17:45** **33rd EPS Prize Lecture - EBS 2.2**
Melissa Colloff, University of Birmingham
Eyewitness identification in the dock - and what memory models can do about it.

Conference Dinner

Session B - EBS 2.50

- 14:00** **Andrea Piovesan** (Edge Hill University) A sensory-origin model of time perception.
- 14:30** **Charlotte Bonardi** (University of Nottingham) Spontaneous timing in conditioned inhibitors.
- 15:00** **Ruoyu Zhang, Luke Jones and Ellen Poliakoff** (Sponsor: Luke Jones) (University of Manchester) Seeking the internal clock: Does the modality effect exist in retrospective timing and if so, is it multiplicative as in prospective timing?
- 15:30** **Tea / Coffee**
- 16:00** **Maria Gallagher** (University of Kent) The aftereffects of extended reality.
- 16:30** **Matthew Longo** (Birkbeck, University of London) Tactile perception off the skin.
- 17:00** **Rosie Donaghy, Matteo Lisi, Tom Piercy, Jenny Hall and Jennifer Murphy** (Sponsor: Jennifer Murphy) (University of Surrey, Royal Holloway University of London, University College London) Sex differences in interoception and mental health: An investigation across the menstrual cycle.
- 17:30** **Break**
- 17:45** **33rd EPS Prize Lecture - EBS 2.2**
Melissa Colloff, University of Birmingham
Eyewitness identification in the dock - and what memory models can do about it.

Conference Dinner

START OF PARALLEL SESSIONS

Session A - EBS 2.34

- 09:15** **Bianca de Haan** (Sponsor: Taeko Wydell) (Brunel University of London) The influence of mind wandering on perceptual performance: A pre-registered study.
- 09:30** **Calvin Deans-Browne, Pia Roth and Henrik Singmann** (Sponsor: Adam Parker) (University College London) The effects of induced beliefs on the perception of evidence.
- 09:45** **Catherine Thompson, Hana Roks and Dan Clark** (Liverpool Hope University) The effects of acute heat stress on information processing: A cognitive task analysis.
- 10:00** **Jan Antkiewicz, Brett Hayes, Yanjun Liu and Thomas Hills** (Sponsor: Thomas Hills) (University of Warwick, University of New South Wales, Australia) Complexity increases false beliefs.
- 10:15** **Katerina Michalaki, Charlotte Pennington, Stephen Mayhew, Klaus Kessler and Daniel Shaw** (Sponsor: Daniel Shaw) (Department of Psychology, Aston University, Institute of Health and Neurodevelopment, Aston University, University College Dublin, Ireland) Seeing the world through others' minds: Determining the role of executive functions in social cognitive processes.
- 10:30** **Tea / Coffee**
- 11:00** **Geoff Ward, Cathleen Cortis Mack, Nathanael Knight and Vanessa Loaiza** (University of Essex, Colorado State University, USA) Similar recall advantages of repetitions and rehearsals in immediate and delayed serial recall and free recall.
- 11:30** **Rachel Swainson, Laura Prosser and Motonori Yamaguchi** (University of Aberdeen, University of Essex) Using a task to select a nogo response increases the subsequent task-switch cost.
- 12:00** **Ryan Elson, Katherine Dyke and Claudia Danielmeier** (Sponsor: Emily Crowe) (University of Nottingham) Comparing effects of tDCS to right DLPFC and medial frontal cortex on visual working memory.
- 12:30** **Shaun Dordoy and Alastair Smith** (Sponsor: Alastair Smith) (University of Plymouth) Examining the links between awareness and attention in large-scale statistical learning.
- 13:00** **Vesko Varbanov, Paul Overton and Tom Stafford** (Sponsor: Tom Stafford) (University of Sheffield) Sensory processing in ADHD and ASD- from specifically similar to divergent underlying structures.
- 13:30** **End of Meeting**

START OF PARALLEL SESSIONS

Session B - EBS 2.50

- 09:15** **Charlotte Rutherford, Andrew Stewart, Caroline Jay, Paul Warren and Gabriel Strain** (Sponsor: Andrew Stewart) (University of Manchester) Increasing bar width increases ratio judgment error in bar charts.
- 09:30** **Hsin-Yuan Chen** (Sponsor: Michael Pilling) (Oxford Brookes University) Gender-dependent effects of accessories on hand feature extraction complexity in computer vision.
- 09:45** **Izzy Wellings and Ian Taylor** (Sponsor: Markus Bindemann) (University of Kent, Loughborough University) Sex differences in motivational dynamics: A secondary analysis of desire-goal conflict during incremental endurance exercise.
- 10:00** **Michaela Dimova, Ashley Slanina-Davies, Keiji Ota, Silvia Seghezzi and Patrick Haggard** (Sponsor: Patrick Haggard) (University College London) Initiation and perception of voluntary crying.
- 10:15** **Ren Palmer, Rosie Donaghy, Rebecca Brewer and Jennifer Murphy** (Sponsor: Jennifer Murphy) (University of Surrey, Royal Holloway University of London) Cross-domain relationships in interoceptive accuracy: The role of control task performance.
- 10:30** **Tea / Coffee**
- 11:00** **Anna Nowakowska and Amelia Hunt** (University of Leicester, University of Aberdeen) Weekly sampling across the academic term reveals the heterogeneous causes of time management failures.
- 11:30** **Tim Rakow** (King's College London) Correlational data suggest that not all experimental psychologists are complete charlatans in how they conduct and report their research.
- 12:00** **Siti Aisyah Binti Shamsun Baharin, Silke Paulmann and Veronica Lamarche** (Sponsor: Silke Paulmann) (University of Essex) Tone of voice as a mechanism of social behaviour, motivation and disclosure.
- 12:30** **Nora Kennis, Martin Pickering and Holly Branigan** (Sponsor: Angela De Bruin) (University of Edinburgh, University of York) Alignment of bilingual language choice in collaborative dialogue: Evidence from a map-task study.
- 13:00** **Yan Gu, Hao Lin and Yequi Zheng** (Sponsor: Motonori Yamaguchi) (University of Essex, Shanghai International Studies University, China, University of Amsterdam, The Netherlands) Seeing time differently: How Chinese Sign Language shapes temporal cognition in deaf CSL-Mandarin bilinguals.
- 13:30** **End of Meeting**

The poster session is to be held on Wednesday 1st July between 6.15pm and 7.30pm in the Essex Business School, rooms 2.65 and 2.66, with an accompanying wine reception.

1. **Morgan Biron, Stefana Juncu and Jamal Mansour** (Sponsor: Kay Ritchie) (University of Portsmouth, University of Lethbridge, Canada) Using eye-tracking to disentangle the potential effect of line-up size on eyewitness identifications.
2. **Einar Andreassen, Benjy Barnett, Chris Frith and Daniel Yon** (Sponsor: Daniel Yon) (Birkbeck, University of London, School of Advanced Study, University of London, University of Oxford) Social transmission of moral certainty.
3. **Joe Lew, Emma Hayiou-Thomas and Angela de Bruin** (Sponsor: Angela De Bruin) (University of York) Executive Function, Language, and Pre-Literacy in emergent Chinese readers: A latent variable study.
4. **Maggie Lynch and Abbie Millett** (Sponsor: Abbie Millett) (University of Suffolk) Can learning style measures infer cognitive style? An experimental method.
5. **Dan Clark and Nick Donnelly** (Sponsor: Catherine Thompson) (Liverpool Hope University) Exploring the influence of object-based attention and item salience on memory for location of objects and animals.
6. **Emmanuele Tidoni, Emily Cross and Nathan Caruana** (University of Leeds, ETH Zurich, Switzerland, Flinders University, Australia) Understanding private and social intentions during human and robotic action observation.
7. **Akshata Sheth, Alex Jones and Jeremy Tree** (Sponsor: Jeremy Tree) (Swansea University) Research Plan - The Dynamics of Emotion: Effects of expression intensity and motion on facial emotion recognition.
8. **Emily Perry and Maria Gallagher** (Sponsor: Maria Gallagher) (University of Kent) The effect of otolith noise on vestibular perceptual latency and temporal binding windows.
9. **Mai Tatsukawa, Satoru Nishiyama and Satoru Saito** (Sponsor: Satoru Saito) (Kyoto University, Japan) Competition of self and other perspectives in visual perspective taking: A latent-trait MPT modelling approach.
10. **Katherine Jennings, Elisa Ferre and Matthew Longo** (Sponsor: Matthew Longo) (Birkbeck, University of London) Lip shape manipulation and perceived attractiveness.
11. **Sarvani Dharwada and Maria Gallagher** (Sponsor: Maria Gallagher) (University of Kent) Vestibular sensitivity is associated with depersonalisation / derealisation in virtual reality.
12. **Matthew Villaquiran, Andy Wills and Mila Mileva** (Sponsor: Nadine Lavan) (University of Plymouth) Impressions of AI-generated faces and voices.
13. **Charlotte Lee, Hollie Birkinshaw, Matthew Garner and Tamar Pincus** (University of Southampton) Autobiographical memory of clinician validation is associated with recall for health information.

- 14. Erik Leemhuis, Maria Luisa De Martino, Giorgio Scivoletto, Annamaria Giannini and Mariella Pazzaglia** (Sponsor: Denise Cadete) (Sapienza University of Rome, Italy, Fondazione Santa Lucia IRCCS, Italy) Embodiment of assistive devices in spinal cord injury: A mental rotation study of wheelchairs and robotic exoskeletons.
- 15. Daniel Fray, Nick Shipp, Keith Laws and Pietro Caggiano** (Sponsor: Keith Laws) (University of Hertfordshire) Peripersonal space and body representation in three dimensions.
- 16. Maria Luisa De Martino, Denise Cadete, Mariella Pazzaglia and Matthew Longo** (Sponsor: Matthew Longo) (La Sapienza, University of Rome, Italy, Birkbeck, University of London) Motor imagery of supernumerary fingers.
- 17. Jenna Huxley, Charalampos Sotirakis, James FitzGerald and Chrystalina Antoniadis** (Sponsor: Asifa Majid) (Nuffield Department of Clinical Neurosciences, University of Oxford, Nuffield Department of Surgical Sciences, University of Oxford) Associations between gait, saccades and cognition in Parkinson's Disease.
- 18. Khalifa Almutairi and Dinkar Sharma** (Sponsor: Dinkar Sharma) (University of Kent) When emotion matters in prospective memory: Effects of valence and arousal across time-based and event-based paradigms.
- 19. Rosalind McAlpine, Krisztina Jedlovsky, Magdalena Jaglinska, Alexandre Piot, Joanna Kuc, Ariel Castro, Yagmur Dulgur, Abbi Major, Christopher Timmermann, Jeremy Skipper and Sunjeev Kamboj** (Sponsor: David Green) (Clinical Psychopharmacology Unit, University College London, Centre for Consciousness Research, University College London, Birkbeck, University of London, Centre for Psychedelic Research, Imperial College London) A randomised feasibility trial of meditation- and music-based digital preparation for psilocybin.
- 20. Tia Bennett, Melissa Colloff and Heather Flowe** (Sponsor: Melissa Colloff) (University of Birmingham) Investigating the effect of suspect-filler similarity on eyewitness accuracy using the UK Lineup Procedure.
- 21. Carolyn McGettigan, Khadija Faiz, Amy Francis, Elizabeth Leivers, Laurie Sin, Hannah Jones, Nadine Lavan and Saloni Krishnan** (University College London, Queen Mary University of London) Effects of narrator-to-story fit on the experience and outcomes of audiobook listening.
- 22. Eleanor Little, Bo Yao and Helen Nuttall** (Sponsor: Angela De Bruin) (Lancaster University) Research Plan - Intolerance of uncertainty, hallucination proneness and articulatory and auditory uncertainty in auditory signal detection.
- 23. Andreia Santiago, Nuno Gomes, Louise Ewing, Marie Smith and Inês Mares** (Sponsor: Inês Mares) (William James Center for Research, ISPA - Instituto Universitario, Portugal, University of East Anglia, School of Psychological Sciences, Birkbeck, University of London, Centre for Brain and Cognitive Development, Birkbeck College, University of London) What do measures of prosocial behaviour really assess?

- 24. Inês Mares, Madalena Brandão, Andreia Santiago, Nuno Gomes, Louise Ewing and Marie Smith** (Sponsor: Inês Mares) (William James Center for Research, ISPA - Instituto Universitario, Portugal, University of East Anglia, School of Psychological Sciences, Birkbeck, University of London, Centre for Brain and Cognitive Development, Birkbeck College, University of London) Is the prosocial cyberball really social?
- 25. Amy Jennison-Boyle, Danielle Ropar, David Maidment and Roger Newport** (Sponsor: Roger Newport) (Loughborough University, University of Nottingham) Investigating the relationship between multisensory integration and anomalous sensory experiences through novel sensory illusions.
- 26. Chelsea Harmsworth, Claire Oakley, Maren Schmidt-Kassow and Silke Paulmann** (Sponsor: Silke Paulmann) (University of Essex, University of Frankfurt, Germany) How teachers' tone of voice shapes students' emotions, behaviour, and psychological needs satisfaction: A comparison of students with and without ADHD symptoms.
- 27. Katerina Kokmotou, Ieva Lukosiunaite, Natalie Wyer and Andrew Bayliss** (Sponsor: Andrew Bayliss) (University of East Anglia) Effects of action choice and outcome valence on social sense of agency.
- 28. Magdalena Lazarczyk, Hantao Liu, Walter Colombo, Christoph Teufel and Victor Navarro** (Sponsor: Christoph Teufel) (School of Psychology, Cardiff University, School of Computer Science, Cardiff University, Cardiff University Brain Research Imaging Centre (CUBRIC)) Familiarity effect on misidentification of GAN-generated faces.
- 29. Kyle Chillingsworth and Sam Gilbert** (Sponsor: Sam Gilbert) (University College London) Can self versus other intentions be differentiated using representational similarity analysis?
- 30. Mayss Hassan** (Sponsor: Silke Paulmann) (University of Essex) Research Plan - How providing patient Autonomy Support through voice cues improves feelings of self-efficacy, job satisfaction and emotional well-being of health care providers.
- 31. Elizabeth Watson, Inês Mares, George Malcolm and Louise Ewing** (Sponsor: Louise Ewing) (University of East Anglia, William James Center for Research, Ispa - Instituto Universitario, Portugal) Decoding the neural signatures of scene category using children's event related potentials.
- 32. Niharika Madala and Gethin Hughes** (Sponsor: Gethin Hughes) (University of Essex) Evaluating decision-making, interoception and physiological arousal in adults with ADHD traits.
- 33. Isaac Winterburn, Catherine Cunningham-Rowe, Carolina Guzman-Holst, Argyris Stringaris, Jack Andrews and Lucy Foulkes** (Sponsor: Matthew Mak) (University of Oxford, University College London, National and Kapodistrian University of Athens, Greece) The impact of mental health-related social media posts on young adults' mental health reporting: Results from two experimental studies.
- 34. Angela Meadows** (Sponsor: Steffan Kennett) (University of Essex) The weight of words on TikTok: The effect of anti-fat microaggressions on viewers' mood and self-esteem.

The effect of feature-focusing instructions on face matching for Asian, Black, and White faces.



Alejandro Estudillo
Bournemouth University
aestudillo@bournemouth.ac.uk

Previous face-recognition experiments have shown that prompting observers to fixate on the glabella for White faces and on the nose for Black faces increases identification accuracy for White and Black faces, respectively, regardless of the observer's race. These findings seem to suggest that the physiognomic information that is most important for identifying faces differs across faces from different racial groups. In the present study, we explored whether prompting White participants to match faces while focusing on specific parts of the face improves matching performance for Asian, Black, and White faces. Observers first performed a baseline face matching task with no feature-focusing instruction. In a subsequent stage, observers were asked to focus either on the top, bottom, or external parts of the face (Experiment 1), or on the eyes, nose, or mouth (Experiment 2). The results showed that, compared to baseline, none of the feature-focusing instructions improved face matching for any of the face race categories. These findings cast doubt on the idea that directing attention to specific facial regions enhances face identification, at least for perceptual-based identification tasks.

Excluded developmental prosopagnosia is associated with objective impairments and self-reported differences in own and family identification.



Edwin Burns¹, Katherine Maw² and Geoff Beattie³
¹ Swansea University
² University of Salford
³ Edge Hill University
edwinjamesburns@gmail.com

Developmental prosopagnosia (DP) is characterised by lifelong troubles recognising faces. Over half of self-identified cases fail to meet diagnostic criteria, leading some researchers to doubt these individuals' complaints. We sought to address such concerns by replicating excluded DPs' objective impairments at the group level in a new cohort of 87 self-identified cases. Moreover, we aimed to validate their complaints by demonstrating qualitatively similar patterns of symptoms as diagnosed DP cases using the prosopagnosia index [PI20]. Strikingly, 59% of self-identified DP cases failed to meet diagnostic criteria, despite exhibiting group-level objective impairments in unfamiliar and familiar face memory [$p < .001$]. These cases exhibited qualitatively similar symptoms to those that did meet criteria for a diagnosis on 18/20 PI20 items. Two items where differences were found reflected excluded cases reporting fewer problems with self and family identification. Excluded cases exhibit multiple forms of identity processing impairments at the group level, thereby validating their self-identified status and highly atypical symptoms. Historical objective classification of DP may have differentiated exceptionally impaired cases who face challenges recognising themselves and family members. We call for an end to the exclusion of self-identified DP cases, as such actions will harm scientific knowledge and those with DP.

Choice blindness for face identification decisions.



Niall Brenock, Kristen Baker and Markus Bindemann
University of Kent
njb49@kent.ac.uk

Individuals often display a lack of insight into their own choices. When participants' choices are altered to reflect the opposite of their original decision, they routinely confabulate justifications for these unmade choices. This is known as the Choice Blindness phenomenon. We investigated the prevalence of choice blindness in unfamiliar face identification, which is a consistently challenging task. Across two experiments, participants completed a matching task wherein they were asked to determine if pairs of faces were of the same person or different people. Half of the sample compared the similarity of 12 facial features prior to making their same/different judgement for each face pair, to determine whether a more detailed visual analysis reduced choice blindness in face matching. Participants then justified a sample of their choices, some of which were manipulated to reflect the opposite of their original same/different judgement. There was no evidence that feature-by-feature comparisons reduced choice blindness (Experiment 1), even after controlling for individual differences in face matching ability (Experiment 2). These experiments suggest that choice blindness in face identification is not attenuated by face-matching protocols that follow a series of standardized feature decisions.

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Beyond Words: Famous face recognition difficulties in developmental dyslexia.



Rachel Bennetts¹, Andrea Petrova¹ and Sarah Bate²
¹ Brunel University of London
² Bournemouth University
rachel.bennetts@brunel.ac.uk

Face processing and word reading have typically been considered independent processes. However, growing evidence suggests that people with developmental dyslexia may also experience difficulties with face recognition. Most research has used highly controlled, unfamiliar face recognition tasks and group-based approaches, leaving it unclear whether these difficulties extend to more naturalistic tasks, such as famous face recognition, and what proportion of dyslexic readers show significant face recognition impairments. This study examined face recognition in 52 individuals with developmental dyslexia and 55 typical readers using a famous face recognition task assessing familiarity judgements, semantic access, and identification, alongside a self-report measure of face recognition (the PI20) and several reading tasks. People with dyslexia performed significantly worse than typical readers on all reading tasks and all aspects of familiar face recognition, and reported poorer face recognition abilities. Over 25% of people with dyslexia showed "minor" face recognition impairments, and an additional 12% showed "major" impairments (over 1SD and 2SD from the mean on both famous faces and PI20, respectively), compared to only 4% of typical readers showing minor impairments and none showing major impairments. These findings suggest that face recognition difficulties in dyslexia are surprisingly common and meaningfully affect everyday face recognition abilities.

In safe hands: The effects of a warm voice on listener wellbeing, perceptions and engagement in healthcare.



Amy Hollingworth^{1,2}, Sheina Orbell^{1,2} and Silke Paulmann^{1,2}

¹ University of Essex

² ESNEFT Psychological Research Unit for Behaviour, Health and Wellbeing
ah20827@essex.ac.uk

Past work has found that effective communication in healthcare is crucial, including both verbal and non-verbal communication that conveys a caring attitude and builds rapport (King & Hoppe, 2013). Communicating warmly importantly increases feelings of social safeness and positive perceptions of the communicator (Fiske et al., 2007), but there is little experimental research on the benefits of a warm tone of voice in healthcare. The aim of this study was to examine whether warmth provided through tone of voice in the health context benefitted listeners compared to cold and neutral voices. 250 United Kingdom residents in two age groups (19-35; 60-81 years) participated in an online experiment. Participants imagined themselves in healthcare scenarios and heard audio recordings of healthcare professionals' instructions in warm, cold and neutral voices. Dependent measures were social safeness, state anxiety, perceived benevolence, treatment expectation, contentment with treatment, and ability and willingness to listen. In all cases a warm voice was the most beneficial voice for patient wellbeing and perceptions, regardless of age. These results provide experimental evidence for the first time that a warm tone of voice alone can be used by healthcare professionals to make patients feel safe and improve patient outcomes.

This work was supported by the Essex ESNEFT Psychological Research Unit for Behaviour, Health and Wellbeing.

Investigating the effects and interactions of motivation, task difficulty and feedback usefulness in adaptation to distorted speech.



Daniel Kennedy-Higgins

King's College London

daniel.kennedy-higgins@kcl.ac.uk

The Framework for Understanding Effortful Listening (Pichora-Fuller et al. (2016) and the Model of Listening Engagement (MoLE, Herrmann & Johnsrude (2020) emphasize the importance of motivation in adapting to distorted speech. Despite the ascribed importance, limited research has investigated the impact motivation has on speech adaptation. In this experiment, participants transcribed 50 noise-vocoded sentences. Motivation was manipulated through bonus payments for better performance. Task difficulty was manipulated using either 3-, 6- or 12-channel noise-vocoding and Feedback was manipulated by providing participants with either a written version of the sentence they transcribed or a copy of their transcription. Preliminary results indicate no effect of motivation. Whereas time point and task difficulty interact with most adaptation observed in the 6-channel condition and limited adaptation for 3- and 12-channel conditions. A further interaction between task difficulty and feedback indicates helpful feedback improved performance only in the 6-channel condition. These results suggest that the level of distortion and feedback are more central to adaptation with a negligible role of motivation in supporting adaptation to distorted speech. Further research is investigating whether the form of motivation (intrinsic vs extrinsic) or the framing (loss vs gain) changes the relationship between motivation and speech adaptation.

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Tracking voice identity perception in authentic vs voice-converted speech.



Justin Lo
Lancaster University
j.h.lo@lancaster.ac.uk

State-of-the-art AI-generated speech is now highly realistic and poses substantial difficulty for human listeners to reliably distinguish from authentic human speech. However, studies have largely focused on explicit detection or discrimination, and little is known about the mechanisms behind how listeners reach their decisions. The current study uses eye-tracking to probe the dynamics of voice identity perception in both authentic speech and AI-generated speech created by means of voice conversion. L1 English participants completed an eye-tracking experiment using a visual-world paradigm, where they listened to authentic and voice-converted samples of short sentences from four female voices, and responded by looking towards character images that they had been trained to associate with each voice. Analysis of overall target fixations over time shows early uptake of indexical information from approximately 400ms for voice recognition, but only minimal differences between authentic and voice-converted samples. However, where correct recognitions have been made, target fixations for voice-converted samples diverge from authentic samples from approximately 800ms. These results suggest that, with the first few seconds at least, listeners process voice identity in similar ways for authentic and voice-converted speech, but can also make early use of differentiating cues in perception when successfully detected.

This work was supported by a Lancaster University Joy Welch Post-Doctoral Grant.

Voice identity and social evaluation modulate voice pitch convergence during synchronous speech.



Victor Rosi, Jenny Xuechen Zhou and Carolyn McGettigan
University College London
v.rosi@ucl.ac.uk

Phonetic convergence refers to the human tendency to align vocal cues such as voice pitch with those of an interlocutor during social interaction. Bradshaw & McGettigan (2021) showed that this also occurs in synchronous speech tasks, in which participants speak in synchrony with an accompanist voice. They found that speakers unconsciously align their pitch with the accompanist's voice pitch. However, identity of the accompanist voice (self vs other) and its perceived social characteristics may influence the strength of the convergence. 20 participants completed two

synchronous speech tasks in which the accompanist voice was either their own pre-recorded voice or a recorded unfamiliar voice, acoustically manipulated to be matched in mean pitch (~252 Hz). Participants also rated both voices for dominance, trustworthiness, attractiveness, and liking. Results showed an effect of voice identity: participants exhibited greater pitch convergence toward the unfamiliar voice than toward their own voice. Crucially, social evaluations significantly modulated this effect, as changes in perceived dominance and trustworthiness of the accompanist voice had stronger effects on pitch adaptation for the unfamiliar than the self-voice. These findings suggest that the identity and perceived social characteristics of a voice heard during speech production shape its influence on speech-related sensorimotor processes.

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Improving the diagnostic value of person descriptions.



Abbie MacAskill¹, Emily Ives², Chad Dodson², Agnieszka Konopka¹
and Travis Seale-Carlisle¹

¹ University of Aberdeen

² University of Virginia, USA

a.macaskill.25@abdn.ac.uk

Eyewitness descriptions play a vital role in criminal investigations, yet police have voiced concerns about their usefulness for decades (Brown et al., 2008; Kebbell & Milne, 1998). Existing interview procedures focus on maximising the amount of accurate details while minimising the amount of inaccurate details eyewitnesses can recall. However, the goal should be to increase diagnostic value in lockstep with accuracy. Diagnostic descriptions include individuating features (e.g., wide-set eyes, pointed ears) that help distinguish a perpetrator from innocent lookalikes that share general characteristics with the perpetrator. This research compared three pre-existing interview procedures used by police including a standard free recall, the Person Description Interview (Demarchi & Py, 2009), and the Self-Administered Interview (Gabbert et al., 2009) to a novel Diagnostic Description Interview (DDI) that explicitly queries eyewitnesses for diagnostic details. In Stage 1, participants described unfamiliar faces from memory using one of the interview procedures. In Stage 2, a separate group attempted to match those descriptions to the described face. Stage 2 data collection is still ongoing, but preliminary results suggest that the novel DDI provides the most diagnostic descriptions. These findings may shed light on mechanisms underlying diagnostic descriptions and may improve eyewitness evidence gathering procedures.

Why don't these tests correlate? Applying Bayesian generative models to face cognition.



Alex Jones and Jeremy Tree

Swansea University

alex.l.jones@swansea.ac.uk

~~Correlations among commonly used face cognition tests are disappointingly low, undermining claims that they measure a common construct. We argue that conventional sum-score analyses discard critical item-level information—assuming equal discrimination and difficulty across trials—thereby conflating construct-relevant variance with task-specific method noise.~~

~~We present a hierarchical Bayesian bifactor model that decomposes binary trial-level responses into a general face ability factor (F) and task-specific nuisance factors (G), while simultaneously estimating item discrimination and difficulty parameters within an IRT framework. Applied to seven face tasks (N=206), the model reveals that tasks vary substantially in their discrimination and method variance: some (e.g., EFCT Upright) provide relatively pure measures of F, while others (e.g., One-in-Ten) contribute high noise despite strong discriminative structure. Correlations among task-specific noise factors are negligible, suggesting tests add largely idiosyncratic method variance. By generating counterfactual datasets scrubbed of task-specific noise, we show that inter-test correlations improve but remain well below unity—indicating that sum-score degradation, not construct heterogeneity alone, drives poor psychometric convergence. The model further identifies which individual items best measure F, pointing toward principled test construction from existing item pools. *Withdrawn*~~

Comparing human perception of facial-trait judgments for AI-synthetic and real faces.



Kyra Scott, Howard Bowman, Heather Flowe and Melissa Colloff
University of Birmingham
kes375@student.bham.ac.uk

Faces are by far the most significant and informative visual-stimuli we perceive on a daily basis. Individuals regularly assess and evaluate faces implicitly on numerous traits to make social inferences that guide their behaviours and actions with others. Given the rapid rise in artificial-intelligence (AI) technologies, we are being increasingly exposed to convincingly realistic AI-generated synthetic-faces. These realistic but fake faces can potentially act as proxies to human-faces in contexts necessitating large or diverse standardised facial stimuli (e.g., face-perception research, fillers in eyewitness identification-lineups). However, using AI-generated synthetic-faces for such applications raises important questions about whether these AI-synthetic faces are implicitly perceived and cognitively appraised in the same manner as real-faces. To investigate this, a pre-trained generative model was tailored to produce passport-like synthetic-faces of different races and sex. These synthetic-faces, alongside real-human faces and synthetically-reconstructed real-faces, were then evaluated by N=240 participants on 17 holistic facial-trait judgements (e.g., trustworthiness, typicality, weirdness) in a randomised, repeated-measures design. Linear discriminate analysis and Bayesian mixed-effects multinomial logit models were run to analyse the data. Results revealed detectable differences in how humans cognitively process and implicitly appraise AI-synthetic faces to real-human faces, with AI-synthetic faces being perceived as more ‘socially-warm’ than real ones.

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Beyond Categorical Emotion Perception: Profiling human and AI perception of face, text and voice-based emotions.



Emily Mason, Mintao Zhao and Stephanie Rossit
University of East Anglia
emily.j.mason@uea.ac.uk

Classical theories of emotion perception propose the existence of basic emotions (anger, disgust, fear, happy, sad, and surprise), which are often perceived and identified as discrete categories. Here, we examined this view by investigating emotion profiles produced by human participants and AI models, rated from 0-100 along a range of expressions. In Study 1, participants rated emotions from dynamic facial expressions, text descriptions, and the combined face-text stimuli. Results revealed that humans perceive rich, multifaceted emotions from both facial expressions and descriptions of emotional scenarios. Adding textual context enhanced the perception of facial emotion, although the target emotions were most consistently perceived from descriptions of emotional scenarios. Humans and models appeared to produce similar emotional profiles, though models struggled to differentiate between negative emotions, like anger, sadness and pain. Study 2 extended this profiling approach to auditory expressions (affect bursts and speech tone). Here, differences were more pronounced, with humans generally producing stronger responses to target emotions. Taken together, these findings suggest that emotion perception entails rich, multidimensional emotional contents (i.e., emotional profiles), which are sensitive to modality and context. Moreover, while AI models are capable of producing human-like emotion categorisations, fine-grained differences in the perceived emotion profiles remained.

Shared structures, culture-specific distinctions: How cultural exposure shapes the representation of emotion.

Ljubica Damjanovic¹, Panos Athanasopoulos¹, Chise Kasai² and Asifa Majid³

¹ Lund University, Sweden

² Gifu University, Japan

³ University of Oxford

ljubica.damjanovic@psy.lu.se

There is continuing debate about the universality or cultural relativity of emotion categories. In this study, we examined representations of anger, contempt, disgust, fear, happiness, sadness, and surprise in three groups: British monocultural students living in the UK, Japanese monocultural students living in Japan, and Japanese bicultural students sojourning in the UK using a facial expression free-sorting task. If emotion categories are universal, then sorts should be arranged in a consistent manner. Using Multidimensional Scaling all groups' solutions could be plotted on two dimensions, however Procrustes Analysis showed that British participants showed the largest structural shift for sadness (solution errors = .06-.55), which formed a distinct cluster separate from the other emotions. Japanese monocultural participants showed a different pattern, with sadness represented closer to anger and disgust (solution errors = .10-.88). Finally, Japanese bicultural participants (solution errors = .14-.62) more closely resembled the British group, such that sadness occupied a more isolated position in the multidimensional space and showed less overlap with anger and disgust. These findings suggest that, although emotional expressions share a common representational structure, the distinctiveness of specific emotion categories is culture-specific and can be shaped by exposure to a new culture.

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Affect labelling intensifies, not regulates: A four-experiment cross-linguistic investigation.

Zhenyang Xi and David Vinson
University College London
zhenyang.xi.17@ucl.ac.uk

Affect labelling is widely theorised as a down-regulatory emotion regulation strategy, yet its effects on emotional intensity remain poorly understood. Across four experiments using positive and negative sentences as stimuli, we investigated how affect labelling modulates emotional responses and whether trait worry moderates these effects. Experiment 1 (affect labelling vs. no labelling) found that affect labelling significantly increased emotional intensity regardless of valence, with trait worry moderating the effect for negative sentences: labelling amplified negativity only in less worried individuals. Experiment 2 extended this by adding an emoji-based affect labelling condition; the same intensification pattern emerged across both labelling formats, with the worry moderation absent, suggesting a robust, format-independent intensification effect. Experiments 3 and 4 introduced a content labelling condition and examined responses cross-linguistically in native English and Mandarin speakers. Affect labelling showed no effect on negative emotions but robustly amplified positive responses, an effect absent for content labelling. Trait worry predicted heightened negativity across conditions, with Mandarin speakers showing attenuation of this worry-driven effect under both labelling conditions. Collectively, these findings challenge the down-regulatory view of affect labelling, reframing it as a valence-sensitive intensifier whose effects on negative emotions are bounded by individual differences and cultural context.

EPS 80th Anniversary Symposium

Where is experimental psychology now, and where will it be at 100?

Organised by Asifa Majid.

Working Memory: Progress, Prospects, and Reinventing the Wheel.

Robert Logie
University of Edinburgh
rlogie@ed.ac.uk

In 330 BCE Aristotle referred to the object of contemplation at the moment, distinct from stored memories for past events and knowledge. In 1690 John Locke referred to contemplation as distinct from the ‘storehouse of ideas’. In 2026, Working Memory refers to the mental ability to hold small amounts of information in mind when performing tasks, and has been a regular topic for EPS meetings for most of its 80-year history. Debates continue as to whether or not it is indeed distinct from the storehouse of knowledge and past events, and precisely what constrains its operations. I will highlight examples of substantial progress in revealing the cognitive and behavioural characteristics of working memory and neurobiological correlates of its function. However, I will argue that progress has been inhibited by unresolved debates, rediscovery or relabelling of previously established empirical findings, and attempts to map psychological concepts onto specific brain structures. Over the next 20 years generative AI could exacerbate these problems, but use of AI to inform and support rather than replace humans would allow scientists to build on rather than repeat what has gone before. Coupling this latter with adversarial collaboration in human empirical studies along with further exploration of functional brain networks and computational modelling, offers exciting prospects to remove the logjam of perpetual debate, avoid repeating history, and dramatically expedite discovery science.

Colour as a Model System: Future directions in Experimental Psychology.

Anna Franklin
University of Sussex
Anna.Franklin@sussex.ac.uk

In this talk, I draw on examples from colour science to reflect on the current state of experimental psychology and consider how the field may develop over the next two decades. I focus on three complementary shifts that are starting to reshape colour research. First, colour science is showing an emerging interest in real-world stimuli and contexts. Experiments increasingly use naturalistic stimuli, immersive methods (e.g., virtual and altered reality), and wearable technologies that capture how colour is experienced in everyday environments. Second, the field is broadening beyond the standard observer. Long-standing claims of universality in colour naming, preference, and emotion are being re-evaluated in light of variation across cultures, individuals, and developmental and neurodiverse groups. This shift draws on approaches ranging from global citizen science to colour psychophysics with small-scale societies. Variation in colour vision and perception is increasingly informing theory rather than being averaged away. Third, a small number of recent studies have begun to use participatory and experience-informed approaches to shape experimental questions, particularly where colour has functional or clinical significance, such as work with autistic adults. Together, these developments point to a future in which experimental psychology fully integrates experimental control with real-world stimuli and contexts, treats diversity as theoretically central, and systematically draws on lived experience in defining its questions.

Mapping neurodiversity through the lens of experimental psychology: Past, present, and future.

Bhismadev Chakrabarti
University of Reading
b.chakrabarti@reading.ac.uk

Neurodiversity spans the entire spectrum of variability in human brain and behaviour. Experimental psychology (EP) has provided some of the core methods to quantify this variation and anchor its theoretical interpretation. Historically, categorical models of psychopathology shaped this work, with paradigms assessing diverse psychological constructs, e.g. theory of mind, central coherence, and executive function. Findings from these paradigms - alongside their theoretical implications- have become increasingly nuanced over time, revealing heterogeneity within and across groups. Current efforts emphasise the identification of reliable biomarkers of neurodiversity. Although this emphasis might appear to diminish the role of EP, it is in fact expanding it. Digitally scalable platforms now enable the deployment of behavioural tasks at population scale, leading to promising phenotypic markers. A key element of the future of EP in this space lies in developing scalable tasks that go well beyond the lab and usual participant populations. This expansion will open new questions about within- and between-individual variability, while advancing a more complex, non-monotonic account of neurodiversity characterised by subgroups and dynamic clusters.

Experimental Psychology in a Multilingual World.

Angela de Bruin
University of York
angela.debruin@york.ac.uk

Over half of the world can communicate in more than one language. This has consequences for how people express themselves, their language behaviours and social interactions (for example, using code switching), the control processes used to achieve smooth communication, as well as potential consequences for cognitive processes more broadly. In this talk, I will discuss what studying multilingualism can tell us about the cognitive mechanisms underlying language production and comprehension, and how some of the dominant views, data, and theories (based on a perceived “monolingual norm”) might not apply to most of the world population. I will highlight the importance of considering differences in daily-life language experiences between individuals and communities in future research, including cultural and language diversity. Finally, language use is often a social and interactive phenomenon but (in the psycholinguistic literature) often studied through artificial lab-based tasks. I will discuss the value of these tasks versus more ecologically valid approaches, as well as managing the (occasional) tension between the two. Throughout, I will highlight how interdisciplinary, collaborative, and transparent approaches are key to the field’s future.

The psychological reality of models.

Daniel Yon
Birkbeck University of London
d.yon@bbk.ac.uk

Psychology may have reputation as a 'soft science' - but the last 80 years has seen nothing but an increase in its hard, mathematical rigour. Some of the greatest success stories in perception, learning and higher cognition research have taken the language of formal computational models and used it to explain behaviour and unearth the component parts of cognitive processes throughout in the human brain. This approach could continue to yield powerful ways of developing and testing theories about human cognition in the decades to come. But hard maths is also not a replacement for hard thinking - and there is already a risk that the innards of computational models become mistaken for the real entities and activities that make up human minds. This risk might be even more pronounced in the age of artificial intelligence, as we become more interested in making strange new minds and less interested in understanding what makes us tick.

You can't play 20 questions with nature and win? Has anything changed?

Sophie Scott
University College London
sophie.scott@ucl.ac.uk

In 1973 Allen Newell wrote a commentary for a symposium on visual information processing, in which he stated 'half of me is half distressed and half confused. Half of me is quite content and clear on where we are going' (Newell 1973). His confusion and distress were based on a concern that while the experimental work was often beautiful, he feared that it constituted many different interesting but unrelated research threads which did not add up into a body of work that could start to adequately describe human cognitive processes in a coherent way – if we run thirty more years of studies 'where will psychology then be?'. Now we find ourselves 55 further on from his commentary, and 80 years of the EPS. Where is psychology now? In this talk I will examine some of Newell's critiques and his proposed remedies and (rudely) widen this out to address some other issues that I think experimental psychology needs to engage with, such as cross-cultural studies, the role of observational studies, and precision around terminology. I will echo Newell's suggestion that psychology needs 'the day of the theorist'. And finally, does Newell's argument matter – is this a game we need to win?

End of Symposium

15th Frith Prize Talk

Perceiving the real and the supernumerary body.

Denise Cadete
Birkbeck, University of London
d.cadete@bbk.ac.uk

The body is inevitably linked to our sense of self. But the body is also a 3D object, with weight, volume and density, like any other object. How does the mind represent the body as both self and object? In the first part, I focus on how we perceive extra body parts; in the second, on the body's physical properties. The mind is prepared to perceive the body, from head to toe. But what happens when we gain a limb? I will first describe the sixth finger illusion, in which humans instantly and vividly experience an extra finger, revealing the mind's ability to represent supernumerary body parts. I show that this illusory sixth finger is represented independently from real fingers and is flexible in size, shape, orientation and anatomical constraints. This sets supernumerary body parts as a special category in body perception, free from constraints identified for existing body parts. Second, I describe how humans perceive the physical properties of their own bodies. I propose that bodily weight, volume, and density are not perceived like object properties, but through fundamental parameters and distortions that may promote action. This can explain perceived limb heaviness after stroke, in pain, and prosthesis use.

Lexical precision moderates Stroop interference in dyslexia and stuttering.

Mahmoud Elsherif^{1,2}, James Smith-Spark³, Linda Wheeldon⁴
and Steven Frisson¹



¹ University of Birmingham

² University of Leicester

³ London South Bank University

⁴ University of Agder, Norway

mahmoud.medhat.elsherif@gmail.com

The Lexical Quality Hypothesis suggests that variations in the precision of orthographic, semantic, and phonological word representations affect language processing. While lexical precision is well-studied in reading, its role in resolving cognitive conflict remains unknown. This study applies lexical precision to the naming Stroop task, a gold-standard measure of cognitive conflict resolution specifically investigating its influence in dyslexic adults and adults who stutter (AWS). We measured Stroop interference in 84 neurotypical readers, 50 dyslexic adults and 30 AWS. Participants completed the naming Stroop task, and a suite of individual difference measures, which were analysed using a Principal Component Analysis to establish scores for phonological precision and lexical precision. On average, both dyslexic adults and AWS showed significantly larger Stroop interference effects compared to neurotypical adults. This group difference was moderated by lexical precision. Dyslexic adults and AWS with higher lexical precision scores showed Stroop interference levels similar to the neurotypical adults, whereas those with lower precision demonstrated significantly larger Stroop interference. The AWS and dyslexic groups did not differ in the level of Stroop interference. These findings suggest that an imprecise lexical representation underlies the difficulties in cognitive control mechanisms, a factor independent of the specific neurodivergent group tested.

Using random forests to predict older and younger adults' lexical decision behaviour.



Faye Balcombe, Sarah White and Victoria McGowan

University of Leicester

fob5@leicester.ac.uk

Lexical decision performance reflects the combined influence of word-level and reader-level factors, yet their relative impact across the adult lifespan remains unclear. To address this, younger (n = 60) and older (n = 56) adults completed a lexical decision task that included a word frequency manipulation, alongside a battery of individual differences measures administered online (author recognition test, forwards and backwards digit span, spelling dictation, spelling identification, vocabulary, and reading efficiency). Reaction times and accuracy were analysed using random forest models to estimate the relative importance of each predictor and rank them based on their overall contribution to model performance. This offers advantages over traditional approaches by accommodating non-linear effects and interactions without strong parametric assumptions. Word frequency emerged as the strongest predictor of accuracy in both age groups. In contrast, reader-level variables showed greater influence on reaction times, with spelling identification and reading efficiency most predictive in older adults, and spelling dictation and vocabulary most predictive in younger adults. These findings highlight distinct contributions of lexical and reader-level factors to lexical decision performance across the lifespan.

This work was supported by the Biotechnology and Biological Sciences Research Council (BBSRC) and University of Leicester funded Midlands Integrative Biosciences Training Partnership (MIBTP) [grant number BB/T00746X/1].

The R.A.B.B.I.T Project: Twofold intervention targeting reading and attentional difficulties.



Lior Weinreich, Louisa von Kontz, Gerd Schulte-Körne and Kristina Moll
Ludwig Maximilian University of Munich, Germany
Lior.Weinreich@med.uni-muenchen.de

The R.A.B.B.I.T project aims to evaluate the effects of a twofold intervention targeting both reading and attentional difficulties. Roughly 25% of children struggle with reading, and approximately 7% fulfil the diagnostic criteria for a reading disorder (RD). The comorbidity rate for a RD with ADHD ranges between 20-40%. If left untreated in childhood, these difficulties can lead to various negative outcomes, such as underemployment and criminality. For children with psychiatric comorbidity, the risk for such negative outcomes is even higher. To date, studies evaluating the benefits of combined interventions for reading and attentional difficulties are scarce. The proposed intervention will assess the simultaneous administration of two behavioural interventions: reading training and attentional self-monitoring. The sample will be comprised of 75 elementary school-aged children with reading difficulties. Moreover, an electrocardiography (ECG) device will be used to passively collect data on children's heart rate variability (HRV) during the pre- post- intervention measurements to explore the connection between participants' HRV patterns and attentional lapses. The results are expected to confirm that the R.A.B.B.I.T intervention will lead to greater improvement in both attentional and reading outcomes.

“R.A.B.B.I.T” acronym: Reading, Attention, Behaviour, Based, Intervention, Tracking.

Do readers use word space information to guide their eyes to new lines of text?



Martin Vasilev, Yuren Zhou and Adam Parker
University College London
m.vasilev@ucl.ac.uk

Word spaces in alphabetical languages act as important visual cues during reading as they allow us to easily separate words from one another, making the reading process more efficient. When inter-word spaces are removed, reading becomes more effortful and readers make more fixations, reading times are longer, and saccades become shorter. However, besides demarcating word boundaries, empty spaces may also be useful for locating the start of the new line of text. When readers reach the end of a line, they need to execute a long eye-movement to the start of the next line (a “return-sweep”). We hypothesized that word space information may allow readers to visually segment the start of the new line in peripheral vision, allowing them to land in a more optimal position. Forty participants read short passages while their eye-movements were recorded in 3 conditions: 1) normal text (with spaces); 2) the same text with spaces removed; and 3) the same text with spaces replaced by random digits. The removal of word spaces led to return-sweep saccades landing closer to the line margin and readers making fewer corrective saccades. These results suggest that return-sweep planning is sensitive to the presence of word spaces.

Sleep preserves emotional salience and limits later updating of aversive memories.



Anna Klets, Aidan Horner and Scott Cairney
University of York
qfv505@york.ac.uk

Sleep's effect on emotional memory remains debated, with evidence suggesting that it may reduce or preserve the emotional charge of prior experiences. This inconsistency may reflect the focus on emotional affect immediately after sleep rather than longer-term changes across multiple nights. Moreover, whether memory retrieval after sleep influences sleep-associated changes in emotional arousal remains unknown. This study examined how sleep and memory retrieval influenced emotional responses to aversive memories after short (2-hour) and long (7-day) delays. Forty healthy adults ($M = 19.88$, $SD = 1.90$) viewed negative and neutral images while skin conductance responses (SCRs) and self-reported valence and arousal were recorded. Participants then either took a 120-minute nap or remained awake before completing a recognition test for a subset of images. One week later, they completed a second recognition test for all images. At the immediate test, sleep preserved SCRs whereas wake reduced them (Delay effect, $p = .004$), with no self-report effects. After one week, prior retrieval reduced valence and arousal ratings for negative images (State x Valence interaction, $p < .001$ and $p = .003$, respectively), but these retrieval-related decreases were attenuated when sleep occurred before retrieval. Overall, sleep appeared to preserve emotional salience and limit later affective modification.

Using narratives as a tool to boost learning.



Chloe Brunskill and Aidan Horner
University of York
chloe.brunskill@york.ac.uk

Narrative texts have a familiar, story-like structure that helps information to be easily understood and remembered. Similarly, meaningful materials tend to be forgotten more slowly than arbitrary information. However, there is currently little empirical evidence that narratives enhance the learning of educational materials. In a series of studies, we tested the prediction that embedding educational information within a narrative would improve memory retention relative to if the information was learnt as a list of isolated facts. In a within-subject design, participants learnt history facts, either as a list of sentences in the isolated fact condition or embedded in a passage of text that described the chronological and causal links between each fact in the narrative condition. We then tested memory using recall and recognition tests after a delay that ranged from two days to three weeks allowing us to compare forgetting rates between the two encoding conditions. Across three experiments we found that learning information as part of a narrative significantly increased participants interest in the materials but did not boost memory performance. In ongoing work, we continue to manipulate both the encoding and test phase to further explore the boundary conditions in which a narrative-based learning benefit might emerge.

This work was supported by the Economic and Social Research Council (ESRC).

Probing behavioural tagging in humans: Spatial memory reveals novelty-driven retroactive enhancement.



Darya Frank¹, Aysha Janjua¹, Zhiyun Qin¹, Jörn Alexander Quent²,
Gian Luca Lancia³ and Daniela Montaldi¹

¹ University of Manchester

² Fudan University, China

³ La Sapienza University of Rome, Italy

darya.frank@manchester.ac.uk

Exposure to novelty can enhance memory performance through behavioural tagging, whereby novel experiences strengthen temporally proximate memories. Whilst consistently demonstrated in rodents, human studies have yielded mixed results, possibly due to inadequate novelty manipulations and/or insufficient hippocampal engagement during encoding. Here, we investigated whether exploration of a novel, unpredictable, immersive virtual reality retroactively enhanced spatial memory in humans. Thirty-six participants completed a two-day experiment involving spatial object-location learning in custom mazes, with encoding strength manipulated through repetition, to create initially weak and strong encoding conditions. Following encoding, participants explored either familiar (predictable city) or novel (multi-site outer-space with unpredictable teleportation) virtual environments. Memory was assessed through spatial accuracy metrics and cued recall. We found a retroactive memory enhancement following novel environment exploration, specifically when novelty occurred on Day 2. This enhancement was evident across spatial memory measures and cued recall, but did not interact with encoding strength. Our results demonstrate that retroactive behavioural tagging effects can be elicited in humans using spatial memory tasks paired with immersive novelty experiences, provided participants have appropriate reference points for novelty evaluation. These findings highlight the importance of investigating behavioural tagging using manipulations that emulate those studied in rodents.

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The neurocognitive underpinnings of word-meaning priming: Evidence from an OPM-MEG study.



Vanessa Keller^{1,2}, Cameron Kyle-Davidson², Adam Curtis³, Scott Cairney²
and Gareth Gaskell²

¹ University of Oxford

² University of York

³ University College London

vanessa.keller@psych.ox.ac.uk

Evidence is growing for an important role for episodic memory processes in supporting language comprehension. Here, we focused on word-meaning priming, a type of flexible ‘re-tuning’ of the mental lexicon. In this paradigm, an ambiguous word is encountered in a context that biases interpretation towards the subordinate meaning, with subsequent word-association tests showing that the priming encounter facilitates retrieval of the primed meaning. In this study, we tested the neurocognitive hypothesis that word-meaning priming is supported by episodic memory processes. We used OPM-MEG to elucidate the oscillatory correlates of word-meaning priming focusing on theta oscillations, which are strongly linked to episodic memory. Behavioural analyses showed

strong word-meaning priming at both immediate (~20 minutes after exposure) and delayed (7-14 days after exposure) test, compared to an unprimed baseline established via an independent control group. In line with our hypothesis, preliminary analyses showed increased theta power during sentential processing of ambiguous words for which a primed, context-consistent meaning was later provided (compared to words for which a context-inconsistent meaning was provided). Our behavioural findings suggest that under certain circumstances, word-meaning priming may survive for as long as two weeks. Finally, the observed theta synchronisation linked to word-meaning priming may point to an important role for episodic memory in supporting word-meaning priming.

Controlling Unwanted Memories: A multisite registered replication of the Think/No-Think effect.

Zara Bergström¹, Jonathan Fawcett², Benjamin Levy³, John Bulevich⁴,
Chris Clark⁵, Paula Hertel⁶, Jenna Hu², Justin Hulbert⁷, Madison LaSaga², Kevin van
Schie⁸, Colin MacLeod⁹, Daniel Todorovic⁹ and The Memory Control Consortium

¹ University of Kent

² Memorial University of Newfoundland, Canada

³ University of San Francisco, USA

⁴ Stockton University, USA

⁵ University of Calgary, Canada

⁶ Trinity University, USA

⁷ Bates College, USA

⁸ Tilburg University, The Netherlands

⁹ University of Waterloo, Canada

z.m.bergstrom@kent.ac.uk



The Think/No-Think (TNT) paradigm is an influential approach to studying the control of unwanted memories. Participants first learn a series of cue-target pairs (BEACH-AFRICA) until the cue reliably elicits the target; then for a subset of the cues (BEACH) they practice avoiding retrieval of the target (AFRICA). Evidence from this paradigm suggests that intentionally not retrieving unwanted experiences renders those experiences less accessible at test. This is referred to as the Suppression-Induced Forgetting (SIF) effect. The SIF effect obtained with independent cues has been suggested to provide compelling evidence for the existence of cognitive inhibition. However, some researchers have questioned its replicability. The current multisite replication project clarifies these concerns by re-examining the TNT paradigm using two common strategies for avoiding retrieval (Thought Avoidance, Thought Substitution) and testing procedures (same-probe, independent probe) across 60+ sites, 11 languages and over 3000 participants. The SIF effect was observed to be small ($d \sim .2$) for all conditions except Thought Substitution when tested using the same cue at test ($d \sim .8$), consistent with previous findings that these strategies have dissociable effects on memory. Minimal variation was observed across sites, showing that SIF is replicable.

Network models for assessing comorbidity between stuttering and ADHD.



Fjorda Kazazi and Peter Howell
University College London
fjorda.kazazi.18@ucl.ac.uk

Overlap of symptoms between people who stutter (PWS) and people with ADHD (PWADHD) is often claimed. However, whether these overlaps reflect a single underlying condition with shared cognitive mechanisms or distinct cognitive architectures remains unclear. This study tested whether the underlying cognitive architectures of stuttering and ADHD differ. Controls (N = 67), PWADHD (N = 79), and PWS (N = 33) were assessed on stuttering, ADHD traits, and phonological working memory (PWM), a known risk factor across both conditions. Network models examined relationships among these domains, quantifying connectivity and comparing network structure and centrality across groups. Results showed that while controls and PWADHD exhibited broadly similar architectures, both differed from PWS. PWM emerged as a central node in all groups, but its connectivity varied: PWM affected attention in controls and PWADHD, but not in PWS. Stuttering severity affected PWM in PWADHD and PWS but the link was stronger in PWS. Higher stuttering rates correlated positively with attention issues in PWADHD and negatively in PWS. Findings do not support a unified network structure consistent with a single shared underlying mechanism, but instead support partially distinct cognitive architectures. The results highlight network approaches and a differential mechanistic role of PWM across conditions.

Strength in Numbers: Multi Site data reveal delayed brain maturation in Tourette Syndrome and highlight the benefits of data pooling.

Katherine Dyke^{1,2}, Stephen Jackson^{1,2}, Valerie Brandt³, Christine Conelea⁴, Kevin Black⁵, Donald Gilbert⁶, John Piacentini⁷, John Rothwell⁸ and Yulia Worbe⁹

¹ University of Nottingham

² University of Nottingham Centre for Neuromodulation, Neurotechnology & Neurotherapeutics

³ University of Southampton

⁴ University of Minnesota, USA

⁵ Washington University in St. Louis, USA

⁶ Cincinnati Children's Hospital Medical Center, USA

⁷ UCLA Semel Institute for Neuroscience and Human Behavior, USA

⁸ University College London

⁹ Sorbonne University, France

katherine.dyke@nottingham.ac.uk



Transcranial magnetic stimulation (TMS) offers a non-invasive means of assessing corticospinal excitability and has been used to examine neurodevelopmental differences in Tourette Syndrome (TS). TS involves alterations in cortical-striatal-thalamic-cortical circuits and may follow an atypical developmental trajectory. Prior studies of resting motor threshold (RMT) in TS have yielded inconsistent results, largely due to small or selective samples. To provide a more reliable estimate of developmental change, we pooled individual level data from multiple international laboratories, creating the largest combined dataset of individuals with TS and age matched neurotypical controls. Across the full sample, mean RMT was higher in TS than in controls. However, age related

modelling showed that this difference reflects a developmental divergence rather than a persistent elevation. Neurotypical participants displayed the expected decline in RMT during childhood and adolescence, reaching adult like levels by approximately 14 years of age. In contrast, individuals with TS showed a substantially slower decline, not reaching an adult RMT level until early adulthood, around 24 years. Adult groups did not differ, indicating that the developmental delay resolves over time. The findings suggest delayed maturation of motor system excitability in TS, which normalises in adulthood, and highlight the value of collaborative data pooling approaches.

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The Double Empathy Problem: A developmental perspective.

Lydia Harrison, Elizabeth Sheppard and Lauren Marsh
University of Nottingham
lpxlh4@nottingham.ac.uk

The Double Empathy Problem (DEP; Milton, 2012) suggests that the social difficulties autistic people experience result from interactions between autistic and non-autistic people - rather than some singular fault within autistic people. While supported in adults, the DEP has not yet been investigated in childhood. This flash talk will present our ongoing project addressing this gap. Autistic and non-autistic children aged 4-to-12-years-old will act be video recorded reacting to four scripted scenarios delivered by the researcher during an interaction. A non-autistic adult perceiver group will then be shown five-second clips of these responses and will be asked to guess which scenario is being reacting to from four multiple-choice options. A pilot study demonstrated that perceivers could accurately infer what non-autistic child targets were responding to significantly above chance performance. In the final procedure, we will conduct a 2x2 repeated measures ANOVA examining the effect of age (4-to-8 vs 9-to-12) and group (autistic vs non-autistic) on perceiver accuracy. If perceivers are significantly more accurate when viewing non-autistic targets compared to autistic targets, this would support the DEP. We also expect to see an interaction between autistic status and age, where difference in accuracy is greater in the older than younger age group.

This work is supported by the ESRC Midlands graduate school.

Auditory distraction during reading in adults with and without ADHD: an eye-movement study.



Chenji Gu, Tianyi Zhou, Xuechu Ding, Yinan Xia, Kexin Zhou, Hanyue Lei
and Martin Vasilev
University College London
chenji.gu.21@alumni.ucl.ac.uk

Attention-Deficit/Hyperactivity Disorder (ADHD) is associated with altered eye movement patterns during reading and increased vulnerability to auditory distractors. However, no previous research has examined how auditory distractors affect reading eye movements in ADHD. The present study compared the eye movements of 25 adults with ADHD and 27 non-ADHD control subjects as they read texts for comprehension in three auditory conditions: silence, meaningful irrelevant speech, and

novel sounds intermixed with standard sounds. The two groups did not differ under silent reading conditions, suggesting their baseline reading performance was comparable. In the irrelevant speech condition, both groups showed increased total viewing times, more second-pass fixations, and greater regression probability relative to silence, consistent with the interference-by-process account of the irrelevant speech effect. Critically, these increases were significantly larger in the ADHD group. Unexpected deviant sounds significantly prolonged first fixation duration relative to standard sounds, but this effect was equivalent across both groups. These findings suggest that ADHD readers are particularly affected by auditory distractors causing sustained semantic interference, rather than by a general increase in susceptibility to auditory distraction.

Exploring the effect of a VR-based social interaction task on face perception.

Shengtong Liu, Boris Otkhmezuri, Rebecca Eillott, and Karen Lander
University of Manchester
shengtong.liu@manchester.ac.uk

Social anxiety is often associated with reduced eye contact and avoidance of faces. The present research examined the relationship between social anxiety and face perception, and tested whether a VR-based social interaction task could alter social anxiety and face perception. In Study 1 (N = 144), social anxiety was measured using the Social Interaction Anxiety Scale (SIAS), and face perception was assessed using the Glasgow Face Matching Test (GFMT) and the Cambridge Face Memory Test (CFMT). Study 2, conducted in the VR2 Laboratory at the University of Manchester, randomly assigned 31 participants (16 experimental, 15 control) to a Group (experimental vs. control) × Time (pre-test vs. post-test) design. The experimental group completed six weekly VR sessions involving six scripted social scenarios, ranked by personal performance intensity (PPI) from a coffee shop interaction to a job interview. Eye movements were recorded continuously using the Meta Quest Pro, yielding measures of eye-gaze and face-gaze duration, and pulse rate was monitored using the EmbracePlus. In Study 1, higher social anxiety was associated with poorer face memory, as reflected in a significant negative correlation between SIAS and CFMT scores. In Study 2, SIAS and GFMT showed no significant effects of Time or Group × Time interaction, whereas CFMT scores improved from pre-test to post-test without a significant Group × Time interaction. Across the two studies, evidence for a consistent relationship between social anxiety and face memory was mixed. Overall, the findings suggest that VR-based social interaction tasks provide a useful framework for examining social anxiety and face perception in more ecologically relevant contexts. *Withdrawn*

Eye movement patterns in static and dynamic context effects: A hidden Markov Model study.

Yuanyi Peng, Alex Kafkas and Karen Lander
University of Manchester
yuanyi.peng@manchester.ac.uk

The extent to which facial expressions and contextual information influence emotion recognition remains unclear. Previous studies have primarily focused on the relative importance of either facial expressions or contextual information, while largely overlooking the role of emotional intensity. Pilot work showed that dynamic contexts were rated as higher in valence than static contexts. Based on this, the present study hypothesised that contextual valence intensity (static vs. dynamic) would

~~modulate eye movement patterns during facial emotion recognition. In an eye-tracking experiment, high- and low-intensity happy and sad facial expressions, as well as neutral faces, were presented against positive or negative backgrounds. Context type (static images vs. dynamic videos) was manipulated between participants. Participants were asked to rate the valence of face emotion. Eye-movement data were analysed using a Hidden Markov Model. The results showed that in static-background conditions, participants adopted either a centre-focused or an eye-focused strategy, typically fixating on the contexts before shifting attention to the face or eye region. In contrast, in dynamic-background conditions, most participants predominantly used an eye-focused strategy, with fewer participants showing a centre-focused pattern. These findings suggest that variation in contextual emotion types is an important factor that significantly influences eye-movement patterns during facial emotion recognition. *Withdrawn*~~

Investigating the effect of social exclusion on selective facial mimicry in pre-schoolers.



Priyasha Khurana¹, Alessia Testa², Ermanno Quadrelli², Katie Daughters¹
and Carina de Klerk¹

¹ University of Essex

² University of Milano-Bicocca, Italy

pk17918@essex.ac.uk

Humans are known to categorise others into social groups and show a preference for in-group members. Facial mimicry - the tendency to spontaneously copy others' facial expressions, is suggested to be one of the strategies through which we enhance social affiliation. While previous research suggests that young children selectively mimic in-group members over out-group members, it remains unclear whether this selectivity is driven by affiliative motivations. This preregistered study examined whether children show greater selective facial mimicry of ingroup members after being excluded by ingroup vs outgroup members. Using a minimal group paradigm, 2.5-year-old children were randomly assigned to either a red or blue group and engaged in an adapted Cyberball game in which they were excluded by either in-group or out-group members. Before and after the game, toddlers observed videos of in-group and out-group models performing facial actions (e.g., eyebrow raising, mouth opening), while their facial muscle activation was measured using electromyography (EMG). Preliminary analyses (N=24) indicate that toddlers excluded by the in-group showed greater selective mimicry of in-group members at post-test compared to those excluded by the out-group. These findings suggest that mimicry may function as a mechanism to restore social bonds when children experience in-group exclusion.

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The face of music: Sensitivity to music reward drives embodied facial responses to emotion in music.



Sebastian Korb¹, Frank Russo² and Antoni Rodriguez-Fornells³

¹ University of Essex

² Toronto Metropolitan University, Canada

³ University of Barcelona, Spain

sebastian.korb@essex.ac.uk

Music listening can elicit a range of emotions and is rewarding to most people. However, there are substantial individual differences in how people respond to music, and little is known about how these differences shape emotional experience. We assessed music reward sensitivity, facial responses, musical and facial emotion recognition accuracy, and subjective pleasure and arousal in 280 participants listening to validated piano excerpts. Music reward sensitivity predicted the pleasure experienced during listening, and resulted in more music-congruent facial expressions - particularly increased smiling to happy music - and stronger coupling between facial expression, emotion recognition, and pleasure ratings. Musical affective priming was more pronounced in individuals high in music reward sensitivity, especially when tasked to recognise emotionally ambiguous faces. Smiling partially accounted for the association between reward sensitivity and pleasure for happy music, consistent with an embodied contribution to musical enjoyment. Together, these findings suggest that individual differences in music reward sensitivity are reflected not only in subjective experience but also in perceptual and facial-motor processes. By linking trait reward sensitivity to embodied emotional responses, this work provides a novel perspective on why some individuals derive less pleasure from music and highlights potential avenues for enhancing musical reward.

Tactile spatial perception: Role of the receptor mosaic.



Patrick Haggard, Johanna Telek, Daisy Miao and Michaela Dimova

University College London

p.haggard@ucl.ac.uk

How do our senses allow us to perceive space? This question has preoccupied experimental psychology since its Kantian origins. The simplest form of the question asks how the activation of one specific receptor on a sensory surface can produce a percept of location - that the stimulus was just THERE, rather than somewhere else. Participants were required to perceive the distance between two tactile point stimuli applied to the fingertip. They received a pair of such distances, separated by a short interval, and judged which distance was greater. The psychophysical functions fitted to such tactile distance comparison judgements were steeper (indicating greater perceptual sensitivity) when the two successive distances were delivered to the same fingertip, then when they were delivered to different fingertips. The results are consistent with noise in an implicit 'cognitive map' of the receptor mosaic used for tactile spatial perception. Comparison across fingers would involve two independent, and therefore additive, sources of noise. Visual hyperacuity studies suggested that people implicitly learn the locations of their own receptors through natural statistics of stimulation. We suggest that a similar process may occur in touch. The natural statistics of objects moving across the skin may underlie learning of the receptor mosaic.

33rd EPS Prize Lecture Symposium

Advances in Applied Face Identification: Cognitive Mechanisms, AI Tools and Applied Challenges.

Organised by Markus Bindemann.

A reduced interactive lineup procedure.

Heather Flowe, Amelia Kohl, Kyra Scott and Melissa Colloff
University of Birmingham
h.flowe@bham.ac.uk

The interactive lineup procedure, which allows witnesses to simultaneously rotate lineup members 90° to the left/right profile from front centre, has been shown to improve the accuracy of eyewitness identification by up to 75% compared to traditional methods. Despite this, interactive lineups have not been adapted in the field, in part due to a lack of resources to enable police departments to capture 3D custody images. One solution is to use a “reduced” interactive lineup procedure, allowing witnesses to cycle between frontal posed images of the lineup members as well as the left and right profile images. We found that participants who used a reduced interactive lineup procedure showed better discrimination ($d' = 1.35$) than those in the static lineup condition ($d' = 1.16$). This difference was more pronounced for participants who encoded a profile image of the perpetrator (interactive, $d' = 1.25$; static, $d' = 0.96$) but did not persist when participants encoded a frontal image of the perpetrator (interactive, $d' = 1.42$; static, $d' = 1.46$). We will discuss these findings within the context of a greater program of research focused on understanding the mechanisms that underlie the improvements in performance that we see from the interactive lineup procedure.

Predictors of lineup accuracy in 2D and 3D displays: An individual differences approach.

Jessica De La Mare
University of Stirling
jessica.delamare@stir.ac.uk

Face processing ability varies widely amongst people and has clear consequences for eyewitness accuracy. Indeed, eyewitness identification is error prone and has led to wrongful convictions in approximately 70% of the cases re-examined by the Innocence Project. Applied work typically concentrates on improving the lineup presentation procedures or estimating the impact of individual differences in face processing ability but seldom looks at both. While there is some evidence suggesting that so-called super-recognisers are consistently proficient across most face processing tasks, including lineup identification, this is not true for ‘typical’ perceivers whose ability can vary widely depending on the test used. For the first time, this research examines whether, and how, eyewitness accuracy interacts with individuals' face processing ability in different 2D and 3D Virtual Reality (VR) lineups. The aim of this project was to establish the best predictors of lineup identification, and to examine the extent to which they predict identity recognition in 2D and 3D lineups displayed in VR. Over 500 participants completed a battery of online face processing tests, followed by laboratory (in-person) basic vision assessment, and eight non-violent mock crimes and lineup tasks in VR. The results and implications for practice will be discussed as a part of this talk.

The eyewitness confidence-accuracy relationship can remain strong even in biased lineups.

Travis Seale-Carlisle¹, Lauren Kelso² and Chad Dodson²

¹ University of Aberdeen

² University of Virginia, USA

travis.seale-carlisle@abdn.ac.uk

Wixted and Wells (2017) showed that confidence is generally informative of suspect identification accuracy. Across the large number of studies they re-examined, 97% of suspects identified with high confidence were guilty; suspects were far less likely to be guilty if identified with low confidence instead. Although some of these studies involved difficult encoding conditions or long retention intervals, the lineups themselves were largely “pristine,” meaning they followed best-practice recommendations. Naturally, some interpreted these results to mean that pristine conditions are necessary for a strong confidence–accuracy relationship. Others argued that the relationship may remain strong even when pristine conditions are not met. We tested these competing predictions in two experiments that systematically manipulated lineup bias. Participants viewed target faces and later completed six-person simultaneous photo lineups that were either pristine or increasingly biased by replacing one, three, or five fillers with very poor matches to the suspect. Across both experiments, empirical and theoretical discriminability declined as bias increased. However, the confidence–accuracy relationship remained surprisingly resilient: even in the maximally biased condition, high-confidence suspect identifications approached 90% accuracy. These findings highlight the underappreciated resilience of eyewitness memory and suggest that even biased lineups can yield diagnostically valuable confidence judgments.

Using artificial intelligence in eyewitness identification research.

Laura Mickes, Damien Wang, Xueqing Chen and Stewart Boogert

University of Bristol

laura.mickes@bristol.ac.uk

Artificial intelligence (AI) offers a promising approach for eyewitness memory researchers. As AI systems continue to advance rapidly, especially in areas such as face detection and image generation from large language models, they may eventually complement or even replace traditional eyewitness procedures when combined with CCTV footage. To keep up with this pace, eyewitness memory researchers must be equipped to use AI tools effectively and to train future researchers in their application. My group is developing software tools that allow non-AI experts to integrate AI into their research. We introduce “pyWitnessAI,” a Python toolkit that extracts faces from video, computes facial similarity, generates description-matched face pools, and constructs lineups using multiple strategies. These include matching fillers to a suspect’s physical appearance, matching fillers to eyewitness descriptions, selecting maximally dissimilar fillers from a matched pool, and hybrid approaches using AI-generated portraits as inputs to similarity-based models. Used together, researchers can construct lineups with pyWitnessAI and then analyse and model data with pyWitness. By combining AI with research on human memory, this work aims to generate evidence-based principles for reproducible lineup construction and to deepen our understanding of facial memory, decision-making, and the ethical implications of applying AI in criminal justice.

The super-recogniser advantage extends to the detection of AI-generated synthetic faces.

Josh Davis¹, Katie Gray², Carl Bunce², Eilidh Noyes³ and Kay Ritchie⁴

¹ University of Greenwich

² University of Reading

³ University of Leeds

⁴ University of Lincoln

J.P.Davis@greenwich.ac.uk

International Organised Criminal gangs are increasingly using synthetic facial images created using Generative Adversarial Networks (GANs), to commit identity theft and fraud. Humans mostly struggle to detect these artificial facial images when presented among real human face images. One explanation for these outcomes, is that an AI hyper-realism effect, makes these artificial faces appear more realistic than real human faces, even though they often contain image artefacts. This research was the first to assess whether super-recognisers (SRs) - individuals with exceptional face recognition abilities - can reliably differentiate between real faces and AI-generated faces produced by the state-of-the-art StyleGAN3 model. Employing two experimental designs, SRs (total N = 283) significantly outperformed typical-ability controls (total N = 381) at detecting the fake faces and at discriminating between the real and the fake faces. Indeed, the performance of controls was below chance levels. We also included a brief training programme in both experiments. Training significantly improved the performance of both participant groups, albeit the SRs advantage over the controls remained approximately the same. These results have important implications for policing, security, and identity verification organisations as SRs may play a role in the detection of AI-generated synthetic faces.

Identifying faces from military images: A case study from World War II.

Markus Bindemann

University of Kent

M.Bindemann@kent.ac.uk

Person identification from old footage can bring together elements of experimental psychology, forensic practice, information processing and history. Here, I present a case study of such a person identification, which attempts to identify a British soldier from a large group photograph from 1944. The investigation considers evidence from an automatic face recognition system, data from human observers, and historical artefacts. This study provides insight into the challenge of such person identifications and the importance of human interaction with automatic recognition systems.

End of Symposium

A sensory-origin model of time perception.



Andrea Piovesan
Edge Hill University
piovesaa@edgehill.ac.uk

Accurate timing is a fundamental component of numerous human behaviours and processes, from action to communication. Despite its importance, our understanding of how humans perceive time remains limited, particularly in its early stages. Consequently, a plethora of theoretical models have been developed in this field; however, none has satisfactorily explained the origins of time perception, and each model accounts for only specific temporal distortions. For instance, Scalar Expectancy Theory (Church & Gibbon, 1982) explains distortions related to arousal and attention; A Theory of Magnitude (Buetti & Walsh, 2009) addresses those arising from the physical properties of stimuli (e.g., size); and the Striatal Beat Frequency model (Matell & Meck, 2004) focuses on distortions linked to dopamine levels and cortical activity. In this talk, I propose the Sensory-Origin Timing (SOT) model, which suggests that the perceived duration of a stimulus depends on the amount of activity generated by the sensory organ encoding it. To support this proposal, I will present a series of experiments demonstrating that retinal activity is associated with the perceived duration of visual stimuli. I will also argue that this relatively simple mechanism can account for a wide range of temporal distortions.

Spontaneous timing in conditioned inhibitors.

Charlotte Bonardi
University of Nottingham
charlotte.bonardi@nottingham.ac.uk

Failures in cognitive inhibitory processes such as Pavlovian conditioned inhibition are widely implicated in psychopathology, and yet little is known about their temporal specificity. Two within-subject experiments on conditioned inhibition in rats are reported, using auditory (A, B & C) and visual (x, y and z) cues (cf. Austen, Sprengel & Sanderson, 2022). Each experiment comprised trials in which A signalled food, and nonreinforced presentations of A in compound with x, making x a putative conditioned inhibitor (A+, Ax-). An equivalent number of nonreinforced trials with B and By (B-, By-) established y as a control stimulus. Animals also received reinforced trials with C, a test excitator, and z. Summation and retardation tests were used to evaluate conditioned inhibition, and rats ability to time x and y was examined. A summation test revealed evidence for inhibition, but in the retardation test there were no differences in the level of conditioned responding to x and y. However, acquisition of timing to x was retarded, and probe trials suggested a selective and temporally precise suppression of responding at the point of food delivery. Practical and theoretical implications of these findings will be discussed.

Austen, J. M., Sprengel, R., & Sanderson, D. J. (2022). Reinforcement rate and the balance between excitatory and inhibitory learning: Insights from deletion of the GluA1 AMPA receptor subunit. *Journal of Experimental Psychology: Animal Learning and Cognition*, 48(4), 307.

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Seeking the internal clock: Does the modality effect exist in retrospective timing and if so, is it multiplicative as in prospective timing?

Ruoyu Zhang, Luke Jones and Ellen Poliakoff
University of Manchester
ruoyu.zhang@manchester.ac.uk

Time perception is commonly divided into prospective and retrospective judgements. While the internal clock model is widely supported in prospective timing, retrospective timing has been explained by the Storage Size Model, which links duration estimates to the amount of processed information. However, inconsistent findings have challenged this account. An alternative view suggests that both types of judgement rely on the internal clock, differing primarily in attentional allocation. In the current study, we conducted two experiments with different stimuli durations in both the visual and auditory modalities to test the potential modality effect in a retrospective timing condition. Participants completed a verbal estimation task of stimulus duration. Results of both experiments revealed a significant longer verbal estimation of duration for auditory stimuli than that for visual stimuli, which suggests a modality effect. The regression analysis found a significant intercept effect between modalities, but no slope effect. The problem of the division of types of time judgement is also discussed. This large-scale investigation involved over 600 participants and represents the first investigation of the possibility of a modality effect in retrospective timing.

The aftereffects of extended reality.



Maria Gallagher
University of Kent
m.gallagher@kent.ac.uk

Extended Reality (XR) technologies have increased, with applications across recreation, rehabilitation, education, and industry. However, lingering effects of XR remain a challenge, with cybersickness and changes to perception and cognition following exposure. Despite these challenges, the scope of aftereffects and the mechanisms underlying them remain poorly understood. One significant and common aftereffect of XR is depersonalisation and derealisation (DPDR) - a sense of disconnect from the self and world. However, the underlying cause has not been thoroughly tested. We investigated DPDR following XR exposure. In Study 1, we found that DPDR was common across different types of XR exposure, with no significant difference in DPDR symptoms across fully immersive Virtual Reality and Mixed Reality - where participants interact with virtual objects while able to see the real world. In Study 2, we found that DPDR was associated with a failure to adapt to visuo-vestibular conflict, with participants who became more sensitive to vestibular signals showing worse symptoms. However, preliminary data from Study 3 suggests that, contrary to previous research, inducing vestibular downweighting through artificial vestibular stimulation cannot mitigate against DPDR and other XR-induced aftereffects. Together, these studies highlight the necessity of studying XR aftereffects to fully understand how XR users are impacted.

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Tactile perception off the skin.



Matthew Longo
Birkbeck, University of London
m.longo@bbk.ac.uk

In contrast to ‘distance senses’ like vision and audition, the sense of touch is often considered a ‘contact sense’, as it requires stimuli to be in physical contact with the primary receptor surface, that is the skin. Exceptions to this generalisation, however, have been discussed for centuries, most notably the use of canes by blind individuals in which information can be obtained from the tip of the cane. More recently, a series of studies by Luke Miller and his colleagues has shown that such ‘remote sensing’ is not limited to the tip of a rod, but extends along its entire length. In this presentation, I will discuss a recent series of psychophysical studies investigating remote sensing of stimuli contacting tools, fingernails, and hairs. Several forms of tactile perception are supported by these stimuli, including basic tactile localisation, tactile distance perception, and recognition of abstract symbols (graphesthesia). The results show that tools, nails, and hairs all support rich forms of tactile perception. While these forms of remote sensing differ in a variety of ways, they all show that tactile perception can operate effectively even when stimuli are presented off the skin.

Sex differences in interoception and mental health: An investigation across the menstrual cycle.



Rosie Donaghy¹, Matteo Lisi², Tom Piercy, Jenny Hall³ and Jennifer Murphy¹
¹ University of Surrey
² Royal Holloway University of London
³ University College London
r.donaghy@surrey.ac.uk

Sex differences in interoceptive ability suggest a male advantage in the perception of bodily states yet heightened attention and physical symptoms in females. The mechanisms underlying these differences remain poorly understood. We present results from the first longitudinal assessment of interoception and mental health across the menstrual cycle. For two consecutive menstrual cycles, twenty women (20 to 36 years) completed daily tasks of interoceptive attention, interoceptive accuracy, and control tasks using smartphone apps, as well as mood and physical symptoms. Phases were determined through mucus reports and basal body temperature measurements. Comparisons revealed that state interoceptive attention was significantly higher in the perimenstrual phase vs mid-follicular (+.52, $p = .027$) and mid-luteal phase (+.48, $p = .027$). We found no significant evidence of differences in interoceptive accuracy across the phases. Our results suggest that hormonal and physical change may contribute to sex differences in interoceptive attention, providing novel insights into sex-specific mechanisms that have implications for physical and mental well-being. Preliminary findings will be presented on the role of interoception in mood and physical symptoms across the cycle.

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33rd EPS Prize Talk

Eyewitness identification in the dock - and what memory models can do about it.

Melissa Colloff
Keele University of Birmingham
m.colloff@bham.ac.uk

How people judge similarity and make face recognition decisions is a central question across psychology. One applied context where these processes have real-world consequences is eyewitness identification, where police must construct lineups that are fair to suspects and also support accurate memory-based decisions from witnesses. Getting this wrong puts innocent people in prison and leaves guilty people free to commit further crime. Despite decades of research, the field has generally lacked clear cognitive accounts of how the lineup task shapes decision-making. This has led to atheoretical experimentation, conflicting findings, and, in some cases, suboptimal procedures being recommended and implemented in the justice system. In this talk, I present a series of studies that use signal-detection-based memory models to generate formal predictions about the effect of facial similarity on decisions. The findings show how changes in similarity influence eyewitness discriminability, as predicted by the models. The models therefore offer a principled framework for understanding how observers compare faces and make decisions. A coherent cognitive framework (along with research and statistical modelling techniques from basic psychology) will help us to address the practical problem of lineup construction.

The influence of mind wandering on perceptual performance: A pre-registered study.



Bianca de Haan
Brunel University of London
bianca.dehaan@brunel.ac.uk

We all mind wander from time to time, where instead of being focussed on our task, we start thinking about task-unrelated personal events or concerns. In daily life, however, mind wandering often negatively affects task performance. Previous studies suggest that this impaired performance may be a consequence of perceptual decoupling - a reduction in the processing of external sensory information when attention turns inward - and some studies suggest that this attenuation of sensory processing may be more pronounced in the left than in the right visual field. However, the precise mechanisms by which mind wandering affects perceptual processes remain underexplored. In the current study, we used an online signal detection task to assess the impact of mind wandering on perceptual performance in the left and right visual fields. Consistent with the perceptual decoupling hypothesis, perceptual sensitivity (d') was significantly lower on trials during which participants reported mind wandering compared to on-task trials. However, contrary to predictions, this reduction in sensitivity did not differ between stimuli presented in the left and right visual field. These findings suggest that the perceptual consequences of mind wandering may be distinct from those associated with slower fluctuations of attention such as reductions in alertness.

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The effects of induced beliefs on the perception of evidence.



Calvin Deans-Browne, Pia Roth and Henrik Singmann
University College London
calvin.deans-browne.20@ucl.ac.uk

While there is abundant evidence showing the correlation between people's prior beliefs and their perceptions of related arguments, there is less evidence that demonstrates the causal link between beliefs and argument evaluations. In our experiment, we introduce participants to a scenario where an outcome (reduced biodiversity along the fictional Blue Coast) is explained by two viable explanations (overfishing vs rising sea temperatures in the area). We induce participants' beliefs about these explanations by manipulating the credibility of each explanation presented to them. Participants are subsequently presented with evidence supporting both explanations as the cause of the outcome. We find that despite the presented evidence supporting both explanations, participants on average thought the evidence better supported the explanation that was in line with the belief we had induced. The study in summary demonstrates causal evidence for the effect of prior beliefs on the evaluation of subsequent evidence.

The effects of acute heat stress on information processing: A cognitive task analysis.



Catherine Thompson, Hana Roks and Dan Clark
Liverpool Hope University
thompsc1@hope.ac.uk

High core body temperatures and high environmental temperatures have been found to impact on thinking and decision making; to the extent that increased temperatures may be considered a stressor. To date, evidence showing the impact of heat stress is mixed; some studies demonstrate that heat facilitates cognitive processing, others reveal impairments due to heat. One occupation in which exposure to high temperatures is common is firefighting, yet it is unclear how thermal stress affects cognition during search and rescue operations. To explore the effects of heat on firefighter cognition, this study used the critical decision method, an example of cognitive task analysis. Twenty firefighters were interviewed and asked to give a retrospective account of an incident they found challenging. They were asked to provide as much detail as possible and the researchers used prompts to explore perception, awareness, and decision making during the incident. Analysis of the data suggests that exposure to acute heat impairs cognitive control. Under thermal stress, individuals become hyper-focused with reduced ability to respond to changing circumstances. The findings are interpreted using the dual mechanism framework, showing that heat stress impacts on both proactive and reactive control. In dynamic, high-risk settings, this has safety implications.

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Complexity increases false beliefs.



Jan Antkiewicz¹, Brett Hayes², Yanjun Liu² and Thomas Hills¹
¹ University of Warwick
² University of New South Wales, Australia
jan.antkiewicz@warwick.ac.uk

Complex informational environments are often assumed to promote false beliefs. Yet the cognitive mechanisms through which irrelevant information promotes such inaccuracies remain unclear. Superstitions, defined as causal beliefs that are objectively incorrect given the rules of an environment, provide a useful test case. We distinguish soft superstitions, which arise without experience of contradictory evidence, from hard superstitions, which persist despite it. Building on the learning-trap paradigm (Rich and Gureckis, 2018), we experimentally manipulated the amount of irrelevant information across conditions. Increasing complexity reduced correct rule acquisition and increased superstition overall. This effect was driven by a rise in hard superstition, whereas rates of soft superstition remained stable across conditions. Greater environmental complexity increased the prevalence of overly simplistic false rules (learning traps). Although environmental complexity did not increase the prevalence of overly complex false rules beyond a certain point, the complexity of those rules continued to increase. We interpret these findings in terms of limits on cognitive capacity. As environments become more complex, individuals allocate attention more selectively and increasingly rely on exploitation rather than exploration of current hypotheses. Computational modelling will examine these mechanisms, providing a cognitive account of the emergence and persistence of erroneous beliefs in information-dense environments.

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Seeing the world through others' minds: Determining the role of executive functions in social cognitive processes.



Katerina Michalaki¹, Charlotte Pennington^{1,2}, Stephen Mayhew²,
Klaus Kessler³ and Daniel Shaw^{1,2}

¹ Department of Psychology, Aston University

² Institute of Health and Neurodevelopment, Aston University

³ University College Dublin, Ireland

k.michalaki@aston.ac.uk

Our ability to infer others' mental states (i.e., mentalising) is integral to successful social interaction. Mentalising is supported by Visual Perspective-Taking (VPT-2) and belief reasoning. The former involves understanding how an object is perceived from another viewpoint. The latter reflects the capacity to infer whether an agent's beliefs align with or deviate from reality (true- and false-belief). However, the cognitive mechanisms that support these "mentalising" capacities remain poorly defined. In this pre-registered study, we determined the effects of domain-general cognition on mentalising. A large sample (N = 370) completed an online battery assessing EFs and mentalising: Stroop Task assessed interference resolution, Colour-Shape Switch Task captured set shifting, Keep Track Task assessed updating. Mentalising was measured through the 'Seeing-Believing Task', a paradigm contrasting VPT-2, true- and false-belief. Two structural models were applied to evaluate the direct and indirect pathways between the EFs and mentalising: a small direct effect of interference resolution on true-belief reasoning was revealed. Set shifting and updating were not significant predictors. No indirect effects via VPT-2 were observed. Interference resolution correlated with set shifting, set shifting with updating, but interference resolution was unrelated to updating. These findings suggest a limited but selective role for EFs in mentalising.

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Increasing bar width increases ratio judgment error in bar charts.



Charlotte Rutherford, Andrew Stewart, Caroline Jay, Paul Warren
and Gabriel Strain

University of Manchester

charlotte.rutherford-2@postgrad.manchester.ac.uk

Bar charts are one of the most popular types of data visualisation. How can we improve their design so they are interpreted more accurately? Foundational work by Cleveland and McGill [1] classified the perceptual task of reading bar charts as a comparison of bar top positions. However, more recent research has revised some of Cleveland and McGill's conclusions about the visual cues readers use to interpret data visualisations [2] [3]. Here we present two fully reproducible experiments (n = 200) coded in PsychoPy [4] and hosted on Pavlovia that tested the contribution of bar width to magnitude perception. Using a linear mixed effects model, we found that increases in both bar width and between-bar spacing increase magnitude ratio estimation error, with width having a greater effect than spacing. This finding demonstrates that bar magnitude comparison is not solely reducible to position or length comparison, and that bar area also influences magnitude judgement. Additionally, these experiments suggest that the default bar width in many current visualisation software packages is suboptimal. To improve the accuracy of bar chart interpretation, bars should be narrow and closely-spaced.

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Gender-dependent effects of accessories on hand feature extraction complexity in computer vision.



Hsin-Yuan Chen
Oxford Brookes University
hchen@brookes.ac.uk

This research examines how everyday accessories such as rings and watches affect the computational complexity of hand feature extraction in computer vision systems. A large dataset of 11,076 cleaned hand images, measuring processing energy under different conditions defined by accessory presence, gender, age, and skin colour, is analysed. A two-way ANOVA revealed a significant interaction between gender and accessory condition. A simple effects analysis showed that wearing accessories substantially increased feature extraction complexity for male hands, but produced no meaningful change for female hands. Age had a modest positive association with complexity only when accessories were present. Skin colour did not significantly influence processing demands. These findings demonstrate that the impact of accessories on hand recognition is strongly moderated by gender, with a smaller additional effect of age. This gender-dependent bias highlights an important but previously overlooked challenge in developing robust hand-tracking technologies. Incorporating demographic factors during model design and optimisation will be essential for creating equitable, efficient, and reliable computer vision systems across diverse user populations.

Sex differences in motivational dynamics: A secondary analysis of desire-goal conflict during incremental endurance exercise.



Izzy Wellings¹ and Ian Taylor²

¹ University of Kent

² Loughborough University

iw13@kent.ac.uk

Endurance performance is shaped by a dynamic conflict between the desire to reduce effort and the value placed on performance goals, both of which evolve under increasing physiological strain. The present secondary analysis examined if changes in desire–goal conflict emerge between males and females across intensity domains. Fifty participants (28 males, 22 females) completed an incremental cycling step test with work rate increasing every four minutes until exhaustion. Desire to reduce effort, performance goal value, and blood lactate concentration were assessed, enabling identification of intensity domains. Multilevel modelling examined within-person changes in motivation over time. Desire to reduce effort increased over time in both sexes, with a steeper increase observed in males. Performance goal value was comparable between males and females at lower intensities. However, in the severe intensity domain, where females demonstrated a stable performance goal value, males exhibited a significant decline. Past research has presumed that physiological factors primarily determine performance success during severe intensity exercise however, psychological factors also impact on success during exercise. Important differences in avoidance motivation manifest relatively early in terms of exercise intensity and continue to be observed at higher intensities. At higher intensities, differential patterns of goal-directed motivation emerge between males and females.

Initiation and perception of voluntary crying.



Michaela Dimova, Ashley Slanina-Davies, Keiji Ota, Silvia Seghezzi
and Patrick Haggard

University College London

michaela.dimova.21@ucl.ac.uk

Emotional crying is a uniquely human behaviour. However, few scientific studies of crying exist. We propose a novel experimental approach to crying, involving trained actors. Many actors are able to control voluntarily a behaviour that is normally an involuntary response to overwhelming emotion. Thus, we investigated how actors cry and generate tears voluntarily and how their crying behaviour communicates emotion to audiences. Using a principled qualitative research pipeline, we developed a 69-item questionnaire on voluntary crying, administered to 110 trained actors. The five most important factors underlying voluntary crying identified by varimax (orthogonal) factor analysis were: 1. Ease of stopping crying, 2. Mental focus, 3. Ease of initiating crying, 4. Sociocultural absorption, 5. Somatic control. Next, in two perception experiments, we showed pairs of brief video clips to viewers (who were not actors). The videos showed a subsample of 14 actors either crying or not crying. Actors who found it easier to start crying, and those who used sociocultural absorption strategies more, were perceived as more emotional. Actors who found it easier to stop crying tended to be perceived as less emotional when they cried. Our findings suggest that voluntary control of tears and crying plays a part in emotion communication.

Cross-domain relationships in interoceptive accuracy: The role of control task performance.



Ren Palmer¹, Rosie Donaghy¹, Rebecca Brewer² and Jennifer Murphy¹

¹ University of Surrey

² Royal Holloway University of London

lauren.palmer@surrey.ac.uk

Interoception research continues to face key methodological challenges. These include the limited consideration of how response patterns vary across tasks and domains, and a lack of control measures to separate interoceptive ability from cognitive or motivational confounds. To address these issues, we combined two established interoceptive accuracy tasks with a new respiratory interoceptive accuracy task. Each task was paired with a newly developed matched control task, designed to isolate non-interoceptive contributions to performance. Participants ($n = 50$) completed all tasks longitudinally across three sessions. Performance on the respiratory interoceptive accuracy task was correlated with its control counterpart ($r_s = 0.23$, $p = .026$), indicating partial influence of non-interoceptive factors in interoceptive task performance. Prior to accounting for control task performance, no relationships were detected between interoceptive domains; however, after accounting for control task performance, a relationship was found between the respiratory and physiological arousal tasks ($\beta = 5.14$, $p = .035$). Together, these results suggest that true interoceptive relationships may be obscured by domain-general factors such as attention and motivation, and that cross-domain relationships may be present under states of physiological perturbation. These findings highlight a need for matched control tasks and multi-domain designs to better understand individual differences in interoceptive ability.

Similar recall advantages of repetitions and rehearsals in immediate and delayed serial recall and free recall.



Geoff Ward¹, Cathleen Cortis Mack¹, Nathanael Knight¹ and Vanessa Loaiza²

¹ University of Essex

² Colorado State University, USA

gward@essex.ac.uk

We examined the similarities between immediate serial recall (ISR, typically used to examine working memory) and immediate free recall (IFR, typically used to study long-term episodic memory and STM), particularly whether increased rehearsal causes increased recall in the two tasks. Experiments 1 and 2 replicated and extended an earlier study by Hellyer (1962) showing that serial recall of 3-word lists declined precipitously with a filled retention interval in the Brown-Peterson task and benefitted greatly from repetitions (E1) and rehearsals (E2) prior to the filled delay. Experiment 3 extended these findings to 6-word lists and the effects of repetitions and delay from ISR to IFR. Experiment 4 used the maxispans technique in which the number of words to-be-rehearsed in a 6-word list was manipulated. In both tasks, we show that increased rehearsal caused increased recall but this effect was limited to 3-4 rehearsed words. Our findings encourage the theoretical integration between ISR and IFR. We conceptualise rehearsal as being the same process as retrieval. Retrieval and rehearsal are imperfect at longer list lengths (greater than 4). However, accurate rehearsal benefits recall (like repetitions) by increasing the number, distribution and stable ordering, and recency of copies of the stimuli in episodic memory.

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Using a task to select a nogo response increases the subsequent task-switch cost.

Rachel Swainson¹, Laura Prosser¹ and Motonori Yamaguchi²

¹ University of Aberdeen

² University of Essex

r.swainson@abdn.ac.uk

Performance is usually worse when switching between tasks (e.g., judging the colour versus the shape of a coloured shape) than when repeating a task. It is not yet clear which elements of task processing contribute to this “switch cost”. Here, we used a cued task-switching paradigm to investigate whether the requirement to use the cued task would affect the switch cost measured on the subsequent trial. On each trial, participants were instructed to perform the cued (colour-judgement or shape-judgement) task. We compared switch costs following two types of “nogo” trial. On both types, the relevant target feature mapped to a nogo response (i.e., no response should be made). On “task-specific nogo” trials, the irrelevant target feature mapped to a keypress response, so using the wrong task risked making an erroneous response. On “task-general nogo” trials, both target features mapped to a nogo response, so there was no risk of error from using the wrong task. A larger switch cost was obtained following task-specific nogo trials than following task-general nogo trials. These results support the idea that using a cued task to process a target stimulus, even while neither selecting nor executing an overt response, can generate a subsequent switch cost.

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Comparing effects of tDCS to right DLPFC and medial frontal cortex on visual working memory.



Ryan Elson, Katherine Dyke and Claudia Danielmeier

University of Nottingham

ryan.elson@nottingham.ac.uk

Working memory (WM) recruits several cortical regions, including the bilateral dorsolateral prefrontal cortex (dlPFC) and medial frontal cortex (MFC). Several non-invasive brain stimulation studies have attempted to increase activity within these regions with the aim of improving WM, primarily targeting left dlPFC and often using verbal WM tasks. In our between-subjects, double-blind, sham-controlled study, we investigated the effects of anodal transcranial direct current stimulation (tDCS) on visuospatial WM targeting MFC and the right dlPFC, which may be recruited more for visuospatial tasks than the left dlPFC. Participants completed an associative visuospatial WM task once before, twice during and once after stimulation. Overall, the effects of stimulation were unclear. An ANOVA showed a significant interaction between stimulation site and condition (active vs sham). Participants in the active group improved more over runs compared to the sham group when targeting the dlPFC (numerically, but not significantly), but improved less over runs than the sham group when targeting the MFC (trend only). However, the interaction was also driven by a trend towards a difference in the sham groups. Therefore, our study does not provide strong evidence that targeting either the MFC or right dlPFC with tDCS enhances task performance.

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Examining the links between awareness and attention in large-scale statistical learning.



Shaun Dordoy and Alastair Smith
University of Plymouth
shaun.dordoy1@gmail.com

Efficient environmental search relies on sensitivity to spatial statistics. Findings from visual search suggest that adaptation to contingencies operates without awareness and may be difficult to unlearn. However, it remains unclear whether this extends to large-scale three-dimensional contexts. We examined whether cueing by large-scale statistics is updated following changes to spatial probabilities, and whether learning is accompanied by awareness of the changing cue. Participants searched an immersive virtual environment for a target positioned on the ground. Trials were divided into two stages - a biased stage, during which targets appeared in the cued quadrant on 50% of trials, followed by either an unbiased stage, where targets were evenly distributed across quadrants, or a second biased stage, where the high-probability quadrant changed. Successful cueing was measured by faster response times on cued trials, while awareness was assessed using behavioural probes. Participants learned the initial probability cue and continued to prioritise the high-probability quadrant when it ceased to be cued, irrespective of whether the second stage was unbiased or contained an alternative cue. In contrast, participants indicated some awareness of the changing spatial statistics when probed. Findings suggest that search biases persist even when the searcher possesses awareness of changes in spatial contingency.

Sensory processing in ADHD and ASD- from specifically similar to divergent underlying structures.



Vesko Varbanov, Paul Overton and Tom Stafford
University of Sheffield
vrvarbanov1@sheffield.ac.uk

There has long been a speculation that ADHD and ASD are the same condition, however pre- and postnatal research, as well as cognitive functioning findings, have provided contradicting results. Over the course of three studies in which we combine exploratory graph analysis, mediation analysis, correlation analysis, we investigate whether ADHD and ASD come from a common neural substrate, by looking at their performance on a visual orientation discrimination task, using both questionnaires and psychophysical tasks to answer this question. Our results suggest that while superficial similarities could be observed, the underlying structures and their interactions with comorbid conditions differ across ADHD and ASD. We further find that the clinical profiles of the conditions also differ- while ADHD better aligns with dimensional structure, Autism better aligns with categorical or hybrid one. In addition, the findings indicate that sensory processing is not an intrinsic feature of ADHD or ASD, but rather a relatively autonomous domain. This research project therefore suggests that sensory processing is a suitable candidate to investigate the common nature of the conditions.

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Weekly sampling across the academic term reveals the heterogeneous causes of time management failures.



Anna Nowakowska¹ and Amelia Hunt²

¹ University of Leicester

² University of Aberdeen

a.nowakowska@leicester.ac.uk

Procrastinators leave tasks too late and often fail to achieve their goals as a result. Procrastinators are the conceptual opposite, starting tasks too early and thereby spending more time and effort on them than necessary. Both behaviours reflect inefficient time management, but how are they related to each other, and to other forms of poor planning and goal achievement? We collected data from two student populations (Aberdeen and Leicester), recruiting participants each week throughout term (N>400). Participants completed tasks and questionnaires measuring procrastination, procrastination, impulsivity, emotional regulation, stress, and workload. A range of real-world measures of time management were also recorded, including in which week of term they participated, whether they arrived early or late to their appointment, and whether and when they completed all required participation credits. There was surprisingly little convergence across different metrics of time management, suggesting heterogeneous causes across circumstances and timescales. Questionnaires designed to measure time management were not strongly predictive of real-world planning behaviour. Results were consistent across both sites and between online and in-person testing. Trends over the academic term in emotional regulation, stress, workload, and anxiety shed light on the complex causes and consequences of time management failures.

Correlational data suggest that not all experimental psychologists are complete charlatans in how they conduct and report their research.



Tim Rakow

King's College London

tim.rakow@kcl.ac.uk

Data pertinent to Psychology's Replication Crisis suggest that replication studies are rare. For instance, from a database search of 341,411 articles in 100 top Psychology journals, Makel et al (2012) identified that 2-3% of articles mentioned 'replication' or a variant term (e.g., 'replicated') and estimated that 1-2% reported new replication research. Re-examining those findings, I conducted two pre-registered replications-with-extension that sampled psychology articles (published pre-2012), plus additional exploratory studies primarily focussed on experimental psychology articles – always without first searching databases, but instead, searching each article's full text to identify author-identified replication. Among 1224 articles sampled in the pre-registered studies, approximately 50% mentioned 'replication' and nearly 20% used 'replication' or a variant term to identify replication as a study aim, report duplicating methods, or describe re-examining findings from prior studies. In experimental psychology journals, over 50% of articles included such author-identified replication. Moreover, authors frequently described reproducing procedures or re-testing results without referring to 'replication'. Likely pertinent to the current state of cumulative science in experimental psychology, conceptual replications seem to be far more prevalent than direct replications, and author-identified replications were often self-replication of earlier studies in a multi-study article rather than reports of independent replication of another lab's findings.

Tone of voice as a mechanism of social behaviour, motivation and disclosure.



Siti Aisyah Binti Shamshun Baharin, Silke Paulmann and Veronica Lamarche
University of Essex
ss21840@essex.ac.uk

Tone of voice is central to social interaction, yet tone of voice signalling specific intentions, such as sounding interested, or attitudes such as encouraging, in influencing listeners' wellbeing remains understudied. Across a series of experimental studies, tone of voice was manipulated while verbal content was held constant to examine its effects in interpersonal, healthcare, and workplace contexts. Validated voice conditions included interested, uninterested, praising, condescending, encouraging, and critical-sounding tones. Results showed that tone of voice systematically influenced listeners' perceptual inferences (e.g., feeling valued and understood), which in turn predicted behavioural and motivational outcomes including self-disclosure, relational closeness, work engagement, and positive affect. Positive-valence tones, such as interested and praising voices, increased willingness to disclose and enhanced connection, whereas negative tones, such as critical voices, reduced motivation and social openness. Theoretically, these findings extend Brunswik's Lens Model by showing that tone of voice not only shapes perceptions about speakers but also functions as a relational mechanism that promotes or constrains social behaviour. This work positions tone of voice as a measurable and experimental predictor through which subtle vocal cues can regulate social connection and wellbeing.

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Alignment of bilingual language choice in collaborative dialogue: Evidence from a map-task study.



Nora Kennis^{1,2}, Martin Pickering¹ and Holly Branigan¹
¹ University of Edinburgh
² University of York
nora.kennis@york.ac.uk

Why do bilingual speakers choose a particular language when interacting with someone who shares their languages? Previous research in non-interactive contexts suggests language choice can be influenced by both bottom-up factors relating to accessibility of representations in the speaker's production system and top-down factors governed by language control mechanisms (Kleinman & Gollan, 2016). We report a study investigating language choice in naturalistic collaborative dialogue: is it affected by an interlocutor's most recent language choice, and does such alignment of language choice depend on cognitive load? Pairs of Dutch-English bilinguals collaborated on an online map-task game in which one partner explained the route, while the other described landmarks. Speakers' language choice was significantly affected by their interlocutor's language choice in the previous turn; there was no effect of or interaction with cognitive load. These results suggest that there are bottom-up priming effects of language choice not just in highly controlled experiments in which participants describe pictures in pre-determined sentences (Kootstra et al., 2020), but also in naturalistic dialogue involving a complex task. In turn, they show that Interactive Alignment (Pickering & Garrod, 2004) extends to the level of bilingual language choice.

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Seeing time differently: How Chinese Sign Language shapes temporal cognition in deaf CSL-Mandarin bilinguals.



Yan Gu¹, Hao Lin² and Yeqiu Zheng³

¹ University of Essex

² Shanghai International Studies University, China

³ University of Amsterdam, The Netherlands

yan.gu@essex.ac.uk

How language shapes spatial conceptions of time remains underexplored in deaf signers. We investigated whether Chinese Sign Language (CSL), which encodes past-at-back mappings, influences deaf CSL-Mandarin bilinguals' temporal reasoning, given that Mandarin also permits past-in-front metaphors. Results of experimental work have been completed. In Experiment 1, deaf bilinguals (N=123) completed a sagittal temporal diagram task in CSL and Mandarin. Compared with hearing Mandarin speakers, deaf signers were less likely to map the past in front, both in CSL (27.50%) and Mandarin (28.75%), whereas hearing speakers did so more often (52.08%). In Experiment 2, participants answered two Mandarin temporal perspective questions. Hearing speakers predominantly adopted the time-moving interpretation (98.75%), but deaf signers did so less often (69.23%), consistent with CSL influence. In Experiment 3 (N=104), using multiple-item replications while controlling for related factors such as their age and temporal focus, deaf signers again showed fewer past-in-front mappings in CSL than Mandarin print, and higher CSL proficiency and earlier CSL acquisition predicted fewer past-in-front responses and less time-moving interpretation. These findings show that sign language experience shapes spatial-temporal reasoning, even within a shared Chinese cultural context. These findings provide new evidence that language modality can shape the spatial representation of time.

Using eye-tracking to disentangle the potential effect of line-up size on eyewitness identifications.

Morgan Biron¹, Stefana Juncu¹ and Jamal Mansour²

¹ University of Portsmouth

² University of Lethbridge, Canada

Morgan.Biron1@myport.ac.uk

Due to the weight given to eyewitness evidence during police investigations and later court proceedings, it is critical that lineups elicit accurate identifications. One variable that affects eyewitness responses is the number of members in a lineup; however, empirical conclusions on the effect of lineup size on accuracy are mixed. The purpose of this pre-registered study is to examine the effects of lineup size on eyewitness gaze behaviour and identification decisions using eye-tracking. The benefits of this under-utilized methodology are two-fold: it provides an objective measure of attention and gaze behaviour, while also allowing for the inference of decision-making strategy and other cognitive processes. While eye movements are recorded, eyewitnesses ($n_{current}=115$, $n_{target}\approx 150$) complete either a 6- or 10-member simultaneous lineup, with culprit presence manipulated using the single-lineup paradigm (Oriet & Fitzgerald, 2018). In this poster, we will present a full analysis of fixations, dwell time, returns, comparison gazes, scan path, and pupil size to examine differences in eyewitness strategies dependent on identification response and presented lineup type (ie. target presence and lineup size). Apparent differences in gaze behaviours and inferred decision-making strategies may be key to disentangling the effects of lineup size on eyewitness identifications.

Oriet, C., & Fitzgerald, R. J. (2018). The single lineup paradigm: A new way to manipulate target presence in eyewitness identification experiments. *Law and Human Behavior*, 42(1), 1-12.

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Social transmission of moral certainty.



Einar Andreassen¹, Benjy Barnett¹, Chris Frith² and Daniel Yon^{1,3}

¹ Birkbeck, University of London

² School of Advanced Study, University of London

³ University of Oxford

einaandr@gmail.com

When we make ethical judgments, we can often feel uncertain about the moral ‘rightness’ or moral ‘wrongness’ of a particular idea, activity or behaviour. While the strength of our convictions seems intuitively to come from our own internal ‘moral compass’ - there is substantial evidence that the confidence or uncertainty we express in moral claims is strongly shaped by social norms. In theories of metacognition developed outside of moral psychology (e.g., in perception), some have suggested that privately-felt and publicly-communicated uncertainty are held separate. However, in our recent work we have found evidence for social learning of (e.g., perceptual) uncertainty - such that we ‘match’ the uncertainty expressed by others, with changes in confidence persisting once interactions end. Here, across five experiments (total N = 200) we test whether the same blending of private and public confidence happens during moral choice. In our moral decision making paradigm, participants made judgments about whether certain beliefs or behaviours (e.g., faith in God, veganism, feminism) were morally right or wrong, while giving confidence ratings. Participants first made moral choices alone, then made choices while observing the judgments of a ‘partner’ - who was programmed to

have generally high or generally low moral conviction. Our results show a strong tendency to gravitate towards the partner's level of moral certainty, that this effect is socially-specific, occurs equally for moral 'allies' and moral 'opponents' and persists even when participants return to making judgments alone. These results suggest an important role for the social world in calibrating our own sense of confidence in moral claims - consistent with the idea we learn from others about the uncertainty we should feel.

Executive Function, Language, and Pre-Literacy in emergent Chinese readers: A latent variable study.



Joe Lew, Emma Hayiou-Thomas and Angela de Bruin
University of York
joe.lew@york.ac.uk

The Simple View of Reading proposes that reading comprehension draws on decoding and language comprehension, while the Active View of Reading emphasises how executive control and self-regulation coordinate these processes. However, existing research has predominantly examined these skills in pairwise associations; evidence on interrelations among executive function (EF), oral language, pre-literacy, and literacy remains limited, particularly for morpho-syllabic scripts like Chinese in non-WEIRD settings. Data were drawn from the first wave of a longitudinal study involving 340 Malaysian Chinese children (aged 6-7), sampled across reading abilities with deliberate oversampling of weaker readers. Twenty-eight tasks assessed EF, Chinese pre-literacy, oral language, and literacy. Using a split-half discovery and holdout validation design, exploratory and confirmatory factor analyses yielded six latent factors. EF was captured by a broad core factor and a distinct attention factor; pre-literacy separated into awareness (phonological, morphological, and orthographic) and rapid automatised naming; language and literacy formed correlated but distinct factors. Structural equation models revealed unique latent-level relations among these domains. This study establishes a valid measurement framework in a non-WEIRD setting, moving beyond the Simple View of Reading by elucidating how EF, oral language, pre-literacy and literacy interact during early Chinese reading development.

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Can learning style measures infer cognitive style? An experimental method.



Maggie Lynch and Abbie Millett
University of Suffolk
s223028@uos.ac.uk

Understanding human cognition is fundamental. One crucial aspect of this is how individual differences influence and support instruction, especially in education. However, the existing methodology for determining these differences rely heavily on self-report measures. The current study piloted an experimental method to distinguish visual-verbal cognitive style, grounded in the connection between cognitive style, learning style, and instructional preference. The method utilised an instructed drawing activity under three conditions: control (no instruction), visual instruction, and verbal instruction, wherein error rate and time taken (in seconds) were recorded.

Additional questions surrounding self-reported learning style and reflections of the experiment were also recorded. The method was an effective measure for categorising cognitive style between participants. A further effect was found for visual learners when separated by self-reported learning style, however, no effect was found for verbal learners. Overall, this study provided evidence to support the experimental method used to measure the visual-verbal individual differences in cognitive style, using learning style, and instructional preference. This evidence highlights how an objective measure allows expansion upon the current understanding of visual-verbal cognitive style. Despite this, further research is suggested to enhance the method.

Exploring the influence of object-based attention and item salience on memory for location of objects and animals.



Dan Clark and Nick Donnelly
Liverpool Hope University
clarkd@hope.ac.uk

Previous work has shown that object locations are more accurately recalled than animals. The current study sought to confirm this finding and to explore if attentional differences at encoding to animals and objects at encoding might influence location memory. Participants completed a modified version of the two-rectangle paradigm where targets were placed on animals or objects to assess item salience (Experiment 1) and object-based attention (Experiment 2) alongside a free recall and location memory task following an incidental learning task. Consistent with prior findings, despite being better remembered in free recall, animal locations were less accurately remembered than those of objects. In addition, the attention tasks showed animals were more salient items than objects but no evidence that they received enhanced object-based attention relative to objects. We suggest that the salience of animals increases their recall but reduces the encoding of their location.

Understanding private and social intentions during human and robotic action observation.

Emmanuele Tidoni¹, Emily Cross² and Nathan Caruana³
¹ University of Leeds
² ETH Zurich, Switzerland
³ Flinders University, Australia
e.tidoni@leeds.ac.uk

Understanding others' intentions from the integration of hand and gaze behaviour is central to social cognition. We examined how people infer private versus social intentions when observing humans, a humanlike robot, and a mechanical robot displaying combinations of hand and gaze cues. Ninety-nine participants completed an online intention attribution task in which they judged whether observed actions were social or private. The agents varied in their motor behaviour (showing or not an object) and gaze behaviour (eye contact or not). We hypothesised that (i) congruent hand-gaze cues would increase accuracy and speed, (ii) response times would be faster for social than private intentions, and (iii) both gaze and motor cues would contribute to intention inference. Results showed that individuals weighted gaze and hand cues differently. Participants who relied mostly on gaze were faster in attributing intentions to the mechanical robot. Participants who relied mostly on hand movements were faster in attributing intentions to humans. Across agents, congruent hand-gaze

cues improved accuracy, and social actions were identified more quickly than private actions. Overall, mechanisms supporting intention understanding from the observation of gaze and motor behaviour depend on agent humanlikeness and the congruency between multiple cues.

This work was supported by the Experimental Psychology Society and the BIAL Foundation Research Grant (137/2024).

Research Plan - The Dynamics of Emotion: Effects of expression intensity and motion on facial emotion recognition.



Akshata Sheth, Alex Jones and Jeremy Tree
Swansea University
2444121@swansea.ac.uk

Facial emotion recognition is a key component of socio-cognitive functioning and is often disrupted in ageing and neurodegenerative conditions. However, existing paradigms rely heavily on static, high-intensity, and culturally homogeneous stimuli, limiting ecological validity and cross-cultural generalisability. This project aims to systematically investigate how stimulus dynamism, emotional intensity, and cultural context influence facial emotion recognition. We hypothesise that reduced intensity and dynamic presentation will differentially affect recognition accuracy, with potential differences across cultural groups and clinical populations to be explored. Two initial studies will recruit healthy older adults from Indian and UK populations. Participants will complete a facial emotion recognition task in which Emotion (7 levels - anger/disgust/fear/happiness/sadness/surprise/neutral) and Intensity (peak/partial) will be manipulated within-subjects, and Presentation Type (peak static/neutral-to-peak static/dynamic) will be manipulated between-subjects. The data will be analysed using a linear mixed-effects model, with response accuracy as the dependent variable. Fixed effects will include Emotion and Intensity as within-subject factors, and Presentation Type and Participant Ethnicity as between-subject factors, along with their interactions. Random intercepts for participants and stimuli will be included, and where supported, random slopes for within-subject factors by participant will also be fitted.

The effect of otolith noise on vestibular perceptual latency and temporal binding windows.



Emily Perry and Maria Gallagher
University of Kent
eep22@kent.ac.uk

Research on multisensory integration shows that sensory noise affects perceptual estimates and precision, but its impact on temporal aspects such as temporal binding windows remains unknown. We investigated whether vestibular noise, induced by a 25° head-down full-body tilt, widens temporal binding windows in a temporal order judgment task. 28 participants indicated whether they perceived a head movement or a light blink first. Eight stimulus onset asynchronies (± 600 -0ms, in 150ms steps) were used, with negative values representing “visual first” and positive values indicating “vestibular first” with synchronous presentation at 0ms. Vestibular stimulation involved a single 1.2 second cycle of sinusoidal binaural-bipolar galvanic vestibular stimulation (2.5 mA, 0.83 Hz), producing an illusory head movement. Visual stimulation involved a 1-second green LED blink.

Participants completed the task both upright and tilted in a counterbalanced order. Results replicated previous findings indicating that vestibular signals are perceived more slowly than visual cues. Interestingly, body tilt significantly slows vestibular perception even further (+95ms), and significantly widened temporal binding windows (+161ms). These findings suggest that tilt-induced otolith noise affects the perceptual latency of vestibular stimulation and widens temporal binding windows for visual and vestibular input. Therefore, sensory noise affects the temporal aspects of vestibular multisensory integration.

Competition of self and other perspectives in visual perspective taking: A latent-trait MPT modelling approach.



Mai Tatsukawa, Satoru Nishiyama and Satoru Saito
Kyoto University, Japan
tatsukawa.mai.54w@st.kyoto-u.ac.jp

Level-1 visual perspective taking (VPT-1) is assumed to rely on automatic perspective calculation and controlled perspective selection. Previous studies have used the Process Dissociation Procedure (PDP) to dissociate these processes; however, PDP has structural limitations, as it does not explicitly model automatic self-perspective calculation and lapse reflecting responses outside of perspective-taking. To address these issues, we applied a latent-trait Multinomial Processing Tree (MPT) model. Participants performed a dot-perspective task, which requires them to judge either the number of dots seen by an on-screen avatar or by themselves, under high or low time pressure. The MPT model had three parameters: controlled perspective detection (C), automatic perspective calculation for self/other perspectives (A_s/A_o), and lapse (L). This model assumes a complementary relationship between self and other automatic perspective calculations ($A_s + A_o = 1$); thus, these are not independent parameters. Results showed that time pressure significantly reduced C and increased L. Critically, when controlled perspective detection (C) failed under high time pressure, automatic perspective calculation showed a significant bias toward the self. These findings indicate that the MPT model can reveal the dynamics of perspective-taking processes, which PDP cannot, thereby providing a refined process-level account of VPT-1.

Lip shape manipulation and perceived attractiveness.



Katherine Jennings, Elisa Ferre and Matthew Longo
Birkbeck, University of London
k.jennings@bbk.ac.uk

Social media is becoming increasingly prevalent in many people's lives. When scrolling social media, people encounter hundreds of filtered/edited images of faces. Furthermore, there is the fast-growing social norm of lip filler. Such exposure is believed to be causing 'perceptual drift' in face perception, shifting what lip shapes are perceived as normal and attractive. Adaptation is widely used to study basic aspects of perception, including high-level face and body perception. Here, we used adaptation aftereffects to investigate how exposure to extreme lip shapes influences perceived attractiveness. Applying a local feature manipulation to photographs of faces, the lip shape was systematically manipulated, size remaining constant, while height and width were adjusted. Participants rated the attractiveness of faces with varying lip shapes at baseline and following

adaptation to both fuller and thinner lips. In the adaptation task, exposure to the extreme lip shape shifts the point of maximum attractiveness towards the end of the manipulation's spectrum, where the lips are either fuller or thinner. Our findings suggest that lip shape influences perceived attractiveness, and exposure to extreme lip shapes shifts perceived attractiveness. This may provide further insight into the 'perceptual drift'. Moreover, it may contribute to our understanding of body dysmorphia.

Vestibular sensitivity is associated with depersonalisation / derealisation in virtual reality.

Sarvani Dharwada and Maria Gallagher
University of Kent
sd790@kent.ac.uk

Despite advancements in Virtual Reality (VR) technology, VR exposure can induce side-effects. One such effect is Depersonalisation and Derealisation (DPDR): feelings of detachment from the self and surroundings. The mechanism behind DPDR following VR use is unknown. Stable representations of the bodily-self depend on the integration of visual and vestibular signals, but VR disrupts this integration. When exposed to optic flow in VR, vision indicates the person is moving while the vestibular system signals stationarity. The brain is thought to resolve this visuo-vestibular conflict by downweighting vestibular signals, but whether this accounts for VR-induced DPDR is untested. We investigated whether changes in vestibular sensitivity are associated with DPDR. Thirty-two participants were exposed to 10 minutes of either roll optic flow, inducing visuo-vestibular conflict, or random dot motion. Vestibular sensitivity was assessed before and after VR using a psychophysical detection task, in which participants received weak Galvanic Vestibular Stimulation (GVS) or Sham and reported whether they experienced head movement. Sensitivity was indexed by d' . A moderation analysis revealed that in the roll condition, participants whose d' increased following VR reported the greatest DPDR increases. These findings suggest individuals unable to resolve sensory conflict through vestibular downweighting are most susceptible to DPDR.

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Impressions of AI-generated faces and voices.

Matthew Villaquiran, Andy Wills and Mila Mileva
University of Plymouth
matthew.villaquiran@plymouth.ac.uk

Artificial Intelligence (AI) technology can now generate realistic identity cues, such as face images or cloned voices, that people find indistinguishable from real, human-generated content. Given their potential prevalence in everyday life, it is important to establish how these materials might be socially evaluated. Here, we collected first impression ratings (such as kind, confident, honest and competent) attributed to faces and voices that were either AI-generated or showed real human identities. Crucially, some participants were instructed that they would be presented with AI materials, while others did not receive any information about the stimuli. AI faces received significantly lower ratings on average for traits such as confidence and fun when participants were told they would be presented with AI faces. Following these instructions, faces were also perceived

as less professional and kind, regardless of whether they showed AI or real identities. This was also observed for voices when rating traits such as outgoing, fun and kind. Surprisingly, AI-generated voices were perceived as more competent regardless of the instructions. These findings suggest that first impressions can be mediated by simple AI framing with broader implications about when and how AI transparency should be approached.

Autobiographical memory of clinician validation is associated with recall for health information.

Charlotte Lee, Hollie Birkinshaw, Matthew Garner and Tamar Pincus
University of Southampton
charlotte.lee@soton.ac.uk

Beyond pain itself, managing a long-term condition places ongoing cognitive and emotional demands on patients. Many people with report difficulties with concentration, attention, memory, and executive functions. These cognitive difficulties can be distressing and may hinder a patient's ability to manage their condition. Research has shown that patients who struggle to recall treatment, advice and self-management strategies accurately often have poor adherence with medical advice. We investigated whether recounting autobiographical memories of validating (vs invalidating) medical consultations influences recall of health-related information, and to examine whether changes in pain-related fear mediate this effect. Participants were 245 adults with chronic pain (≥ 3 months) recruited online and were quasi-randomly assigned to describe either a validating or invalidating consultation they had previously experienced. Before and after this task, participants rated their pain intensity and pain-related fear. Participants then listened to 20 health messages and were later asked to recall them in an incidental memory test. Participants who described a validating consultation were more 19% likely to recall health messages than those in the invalidating condition. The association was not mediated by change in pain-related fear. These findings highlight clinician-validation as a potential strategy to support cognitive functioning in people living with chronic pain.

This work was supported by a joint and equal investment from UKRI [MR/W004151/1] and the charity Arthritis UK [22891] through the Advanced Pain Discovery Platform (APDP) initiative. For UKRI, the initiative is led by the Medical Research Council (MRC), with support from the Biotechnology and Biological Sciences Research Council (BBSRC) and the Economic and Social Research Council (ESRC).

Embodiment of assistive devices in spinal cord injury: A mental rotation study of wheelchairs and robotic exoskeletons.

Erik Leemhuis¹, Maria Luisa De Martino¹, Giorgio Scivoletto²,
Annamaria Giannini¹ and Mariella Pazzaglia^{1,2}
¹ Sapienza University of Rome, Italy
² Fondazione Santa Lucia IRCCS, Italy
erik.leemhuis@uniroma1.it

Spinal cord injuries (SCI) alter sensory–motor processing and body representations, often leading to functional and perceptual reorganisation. Assistive technologies, such as wheelchairs and robotic exoskeletons, may be part of this process, becoming incorporated into the body schema through the

process of embodiment. Using a mental rotation task, we investigated the embodiment of assistive devices in individuals with paraplegia. Seventeen patients with a SCI and a matched control group of healthy participants performed a mental rotation paradigm involving biological stimuli (hands and feet) and non biological stimuli (wheelchairs and a lower limb robotic exoskeleton). Participants verbally indicated whether the stimulus, with four different orientations (0°, 90°, 180°, 270°) was presented on the left or right side, regardless of spatial orientation. Reaction times and accuracy were measured before and after training with the exoskeleton, and at a follow-up after eight training sessions. Patients showed lower reaction times with wheelchair stimuli rotations but displayed altered performance for foot stimuli, consistent with reduced reliance on motor imagery for deafferented body parts. Moreover, response times for exoskeleton stimuli continued to improve at follow-up, reflecting ongoing integration. The findings suggest greater integration of the device into the body schema resulting in faster implicit processing of associated stimuli.

Peripersonal space and body representation in three dimensions.



Daniel Fray, Nick Shipp, Keith Laws and Pietro Caggiano
University of Hertfordshire
d.fray@herts.ac.uk

Action upon the world requires accurate representations of the acting body and the surrounding space. The body representation of an individual is often theorised in two distinct representational systems, that of the conscious body image and the unconscious body schema. Whilst much research examining the motor-related representation of space has understandably focussed on body schema aligned methodologies, our previous study examined individuals' conscious perception of maximum reach. Using a virtual reality methodology, participants were seated at the centre of a radiating hemisphere of targets which they could move to their perceived maximum reach. It was found that participants universally overestimated their reach, particularly for lower targets; however, where proprioceptive information was available, this moderated the effect. This study will utilise the same experimental environment with similar conditions, however, participants' peripersonal space will be assessed using a haptic response task paired with the approaching visual targets. Where the previous experiment may be interpreted to investigate the conscious-perceptual body image, the peripersonal space assessment is associated with unconscious body schema processes. Findings between studies will be compared and contrasted.

Motor imagery of supernumerary fingers.



Maria Luisa De Martino¹, Denise Cadete², Mariella Pazzaglia¹
and Matthew Longo²
¹ La Sapienza, University of Rome, Italy
² Birkbeck, University of London
marialuisa.demartino@uniroma1.it

Our bodily experience is flexible and its boundaries can be continuously modified, extended and adapted to environmental demands. An interesting example is provided by illusions of supernumerary body parts. In such cases, multisensory integration processes involving visual,

proprioceptive and tactile inputs lead to the altered perception of having extra limbs or fingers. It remains unclear to what extent these supernumerary body parts are integrated into sensorimotor representations of the body. To provide further insight on this aspect, we exposed nineteen healthy participants to the supernumerary sixth finger illusion. The same participants performed a Visual-Guided Pointing Task under three conditions: a real movement condition, a motor imagery condition, and a motor imagery condition including the perception of the supernumerary sixth finger. Performance can be measured based on a linear relationship between movement time and task difficulty. As postulated by Fitts's law the movement time increases as the difficulty index rises. Our results highlighted that the performance in the condition with the sixth finger exhibited the same characteristics as speed accuracy trade off as actual movements and imagery of real body parts. These results support the idea of a complete bodily integration of the sixth finger also in terms of action representation.

Associations between gait, saccades and cognition in Parkinson's Disease.

Jenna Huxley¹, Charalampos Sotirakis¹, James FitzGerald²
and Chrystalina Antoniadou¹

¹ Nuffield Department of Clinical Neurosciences, University of Oxford

² Nuffield Department of Surgical Sciences, University of Oxford

jenna.huxley@ndcn.ox.ac.uk

Parkinson's disease (PD) is characterised by motor and cognitive deficits which impact both gait and eye movements. These functions are mediated by several overlapping brain regions and cognitive processes, however they are typically assessed in isolation. Therefore, we aimed to characterise the relationship between gait and eye movements alongside cognition. We analysed data from the Oxford QUantification in Parkinsonism (OxQUIP) study where participants performed walking/balance and saccade tasks. Unified Parkinson's Disease Rating Scale part III (UPDRS-III) and Montreal Cognitive Assessment (MoCA) provided clinical scores for motor and cognition respectively. Data underwent dimensionality reduction and exploratory analysis (n=20) included Spearman's correlations between gait/balance and saccade features and clinical scores. We found that whilst antisaccade error rate (AER) and latency were significantly correlated with MoCA, no gait/balance features were. However, several gait features, such as arm swing velocity and variability of stance phase, and AER were significantly correlated with UPDRS-III. These findings suggest that global cognition may influence gait and saccades differently and there may be partial independence between underlying neural circuitry. Future work will involve multivariate analysis to assess whether combining modalities provides a better signal for predicting motor scores compared to modalities in isolation.

When emotion matters in prospective memory: Effects of valence and arousal across time-based and event-based paradigms.

Khalifa Almutairi and Dinkar Sharma
University of Kent
ka580@kent.ac.uk

Prospective memory (PM) is often assumed to benefit from emotional salience, yet the conditions under which valence and arousal influence performance remain unclear. Emotional salience is often

assumed to enhance prospective memory (PM), yet findings remain inconsistent. One potential source of this variability is how emotion is embedded within the task, as well as how emotional dimensions are operationalised. Across three laboratory studies, we examined how emotional valence, arousal, and social importance affect PM and ongoing-task processing in event-based and time-based paradigms using lexical decision tasks. In Study 1, emotion was embedded in event-based PM targets. This manipulation produced minimal effects on PM performance, although arousal influenced ongoing-task accuracy. In Study 2, emotion was instead embedded in the ongoing task, yielding more robust effects: valence influenced PM accuracy and reaction time, as well as ongoing-task performance, and interacted with arousal to predict PM accuracy. Study 3 extended this approach to a time-based PM task. Here, PM accuracy remained stable, but negative valence slowed PM responses, and valence and arousal jointly influenced ongoing-task performance. Clock checking also increased as the target time approached. Across studies, emotional effects on PM were strongly context-dependent. The most consistent effects emerged when emotion shaped the ongoing-task environment rather than the PM cues themselves. These findings suggest that emotional influences on prospective remembering depend critically on how and where emotion is integrated within the task, with arousal modulating valence effects in a similarly context-sensitive manner.

A randomised feasibility trial of meditation- and music-based digital preparation for psilocybin.



Rosalind McAlpine^{1,2}, Krisztina Jedlovsky^{2,3}, Magdalena Jaglinska², Alexandre Piot¹, Joanna Kuc², Ariel Castro², Yagmur Dulgur², Abbi Major¹, Christopher Timmermann^{2,4}, Jeremy Skipper² and Sunjeev Kamboj¹

¹ Clinical Psychopharmacology Unit, University College London

² Centre for Consciousness Research, University College London

³ Birkbeck, University of London

⁴ Centre for Psychedelic Research, Imperial College London

rosalind.mcalpine.18@ucl.ac.uk

Psychedelic-assisted therapy trials increasingly recognise preparation as important, yet standardised, scalable preparation interventions remain lacking. The Digital Intervention for Psychedelic Preparation (DIPP) is a 21-day self-guided programme delivering daily mood tracking, journaling, and psychoeducation through a secure web application. This feasibility trial compared two versions: DIPP-MEDITATE (with daily guided loving-kindness meditation) and DIPP-MUSIC (music-only active control), to isolate meditation's specific contribution to psychedelic preparedness and the subjective psilocybin experience. Methods. Forty healthy adults (21–65 years) were randomised (1:1) in a double-blind, parallel-group design. Following 21 days of DIPP, all participants received 25mg psilocybin under supervised conditions at UCL. Primary outcomes were pre-registered feasibility indicators: recruitment efficiency ($\geq 1/\text{week}$), retention ($\geq 70\%$), and intervention adherence ($\geq 70\%$ task completion). Secondary outcomes included the Psychedelic Preparedness Scale (PPS), Oceanic Boundlessness (OBN), Challenging Experience Questionnaire (CEQ), and Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS). Daily self-reported mindfulness and decentering were captured via the DIPP platform throughout the preparation period. Results. All feasibility thresholds were met. Both groups showed significant pre-to-post improvements in psychedelic preparedness. No between-group differences emerged in acute experience measures (OBN, CEQ). Wellbeing increased significantly from baseline to two-week follow-up, with a trend favouring DIPP-MEDITATE. Daily decentering scores increased over the 21-day preparation period, while daily mindfulness ratings remained stable. Conclusion. DIPP is a feasible, acceptable digital preparation intervention for psilocybin research. The differential trajectory of decentering versus mindfulness suggests these capacities may respond differently to brief contemplative training, with implications for how preparation interventions are designed and what they target.

Investigating the effect of suspect-filler similarity on eyewitness accuracy using the UK Lineup Procedure.



Tia Bennett, Melissa Colloff and Heather Flowe
University of Birmingham
t.bennett@bham.ac.uk

Research into the effects of suspect-filler similarity on eyewitness identification accuracy typically uses the standard US procedure of six-person simultaneous photograph lineups. However, lineup procedures differ around the world, and it is important to examine whether procedural differences influence similarity effects. This study investigated how suspect-filler similarity influences eyewitnesses' ability to discriminate between guilty and innocent suspects (i.e., 'discriminability') using a UK procedure with nine-person sequential video lineups. Guided by diagnostic-feature-detection theory (Wixted & Mickes, 2014) and the feature-matching model (Colloff et al., 2021), we predicted that as suspect-filler similarity decreased, guilty suspect identifications would increase (hit rate, 'HR') without affecting innocent suspect identifications (false alarm rate, 'FAR'), and discriminability would improve. In an online experiment, 4503 participants watched a mock-crime video and then completed a lineup task featuring either a guilty or innocent suspect. Fillers varied in similarity to the suspect (low, medium, high), based on ratings collected in a preliminary study. Results provided moderate support for predictions. Low similarity lineups increased the HR and discriminability compared to medium and high similarity lineups without harming the FAR, but the findings were not statistically significant. The lack of significance may be explained by consistently low FARs across all conditions.

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Effects of narrator-to-story fit on the experience and outcomes of audiobook listening.



Carolyn McGettigan¹, Khadija Faiz¹, Amy Francis¹, Elizabeth Leivers¹,
Laurie Sin¹, Hannah Jones¹, Nadine Lavan² and Saloni Krishnan¹
¹ University College London
² Queen Mary University of London
c.mcgettigan@ucl.ac.uk

We tested how the perceived fit between a narrator's voice and the book's content impacts audiobook listening. In a pilot experiment (N=40 participants), participants read 20 book extracts and for each one provided ratings of the 'ideal' narrator's gender and age. From these data, we selected 4 extracts yielding strong expectations about voice gender (2 male, 2 female). We generated audio versions of these stories with both a male-sounding and a female-sounding narrator, to produce congruent and incongruent narrator-story pairings. In a willingness-to-wait experiment (N=400 participants), listeners each heard 2 congruent and 2 incongruent stories - after each story, they rated their enjoyment (1-9), answered a 4AFC comprehension question, and chose whether to wait to hear

more of the story (a measure of motivation). The results showed that greater narrator-story gender congruence did not impact enjoyment or comprehension, but did significantly increase motivation through greater willingness to wait. Analyses of overall narrator-to-story fit ratings suggested that while motivation can under some circumstances be predicted by consensus ratings, enjoyment is more dependent on individual listener taste. This work adds to our previous findings that audiobook narrator identity can significantly affect listener experience and engagement (McGettigan et al., 2025, PsyArXiv).

Research Plan - Intolerance of Uncertainty, Hallucination Proneness and Articulatory and Auditory Uncertainty in Auditory Signal Detection.



Eleanor Little, Bo Yao and Helen Nuttall
Lancaster University
e.s.little@lancaster.ac.uk

Uncertainty is an unavoidable aspect of everyday life (Anderson et al., 2019). Intolerance to uncertainty (ITU; the tendency of negative reactions to ambiguity) is a transdiagnostic mechanism underlying a range of disorders (Carleton et al., 2012). Voice hearing (VH; the perception of speech without an external source) occurs in both clinical and non-clinical populations, yet its mechanisms remain unclear (Horga et al., 2014). Uncertainty should influence VH as heightened uncertainty shifts perception towards reliance on predictions over ambiguous sensory input, increasing the likelihood of misattributing internally generated speech as external. This could be exacerbated in higher ITU individuals who rapidly attempt to resolve ambiguity. This study investigates whether experimentally manipulated uncertainty and ITU influence VH in signal detection tasks (SDT). Participants complete SDTs requiring detection of pseudowords in chattering background noise across three conditions: baseline ('lars'), auditory uncertainty (vowel manipulation), and articulatory uncertainty (consonant manipulation). Hallucination proneness (HP) and ITU are assessed using questionnaires. We hypothesise that uncertainty will increase VH experiences, reflected in reduced perceptual sensitivity and a more liberal response bias in uncertainty conditions. Data will be analysed using Bayesian mixed-effect models and computational models with Hierarchical Gaussian Filter to measure how uncertainty impacts responses throughout the conditions. This study should further clarify the role of uncertainty in non-clinical VH.

What do measures of prosocial behaviour really assess?



Andreia Santiago¹, Nuno Gomes¹, Louise Ewing², Marie Smith^{3,4} and Inês Mares¹

¹ William James Center for Research, ISPA - Instituto Universitario, Portugal

² University of East Anglia

³ School of Psychological Sciences, Birkbeck, University of London

⁴ Centre for Brain and Cognitive Development, Birkbeck College, University of London

asantiago@ispa.pt

To understand why people help others, researchers have developed several measures of prosociality, including behavioural tasks and self-report scales. Despite the consensus that prosocial behaviour is a multifaceted construct, few studies have directly examined how these different measures relate to one another. This study addresses this gap by systematically comparing widely used behavioural and self-report measures within the same sample. Participants (N=447) completed four behavioural tasks online – the Dictator Game (DG), the Public Goods Game (PGG), Prosocial Cyberball (PC), and Social Value Orientation (SVO) – alongside self-report measures of prosocial behaviour (Self-Report Altruism Scale), empathic concern (Interpersonal Reactivity Index), and fairness–reciprocity (Moral Foundations Questionnaire). Three of the behavioural measures (PGG, DG and SVO) were significantly associated with each other (from small to high effects; $p < .001$), whereas the PC was not associated with any measure. Only the DG and SVO showed significant associations with self-reported empathic concern and fairness-reciprocity ($p < .002$), with the DG also correlating with self-report prosociality ($p = .017$). These findings highlight that prosocial measures are not interchangeable. Overall, the current study shows that the DG and SVO are promising measures of prosociality, offering researchers more reliable and theoretically grounded tools for future studies. This work was supported by the Bial Foundation (260/24).

Is the prosocial cyberball really social?



Inês Mares¹, Madalena Brandão¹, Andreia Santiago¹, Nuno Gomes¹,
Louise Ewing² and Marie Smith^{3,4}

¹ William James Center for Research, ISPA - Instituto Universitario, Portugal

² University of East Anglia

³ School of Psychological Sciences, Birkbeck, University of London

⁴ Centre for Brain and Cognitive Development, Birkbeck, University of London

imares@ispa.pt

The Prosocial Cyberball is a virtual ball-tossing paradigm widely used to assess compensatory behaviour toward an excluded player as an index of prosociality. However, evidence for its construct validity remains limited. Here, we examined the extent to which participants' compensatory behaviour during the task is sensitive to the perceived context (e.g., social vs non-social) of the interaction and to the level of animacy/anthropomorphism of the avatars presented. Participants (N = 94) completed one of three versions of Prosocial Cyberball that varied in social context: (1) social instructions with anthropomorphic avatars (S-Av); (2) non-social instructions with anthropomorphic avatars (NS-Av); or (3) non-social instructions with non-anthropomorphic avatars (NS-NonAv).

Using the Godspeed Questionnaire Series, we identified significantly greater perceived animacy and anthropomorphism in S-Av compared to NS-Av (p=.55). Participants demonstrated compensatory behaviour across all three versions of the task, with a pattern suggestive of decreased compensatory behaviour in the NS-Av condition (S-Av vs NS-Av, p=.044) but not in the NS-NonAv (S-Av vs NS-NonAv, p=.630). These findings suggest that compensatory behaviour in the Prosocial Cyberball is partially sensitive to social context. However, inconsistent effects across conditions highlight the need for further research.

This work was supported by the la caixa Foundation (SR24-00474).

Investigating the relationship between multisensory integration and anomalous sensory experiences through novel sensory illusions.



Amy Jennison-Boyle¹, Danielle Ropar², David Maidment¹
and Roger Newport¹

¹ Loughborough University

² University of Nottingham

A.Jennis-Boyle@lboro.ac.uk

Anomalous perceptions, sometimes labelled paranormal, are reported around three times more by autistic people than typically developing people. Differences in how autistic people bind congruent multisensory inputs to construct meaningful events could lead to misinterpretation of sensory events. This study investigated multisensory integration (MSI) through illusions designed to alter perceptions of the wrist and arm. Integration of concurrent visuo-tactile inputs is thought to underpin most body illusions; therefore, illusion susceptibility might indicate more accurate visuo-tactile binding. It was hypothesised that people less susceptible to the illusions, and with higher autistic traits (ATs), are more likely to inaccurately bind visuo-tactile inputs, leading to more day-to-day sensory-based anomalous experiences (AEs). Participants completed questionnaires to measure AEs and ATs, then experienced two illusions through a combination of seen and felt touches to both arms. Over 75% of participants reported illusory experiences, such as feeling their wrist and/or arm change shape. Participants who reported more sensory reactivity traits reported more frequent anomalous touch experiences in their day-to-day lives. There was no relationship between illusion experience and AEs. This suggests AEs may be related to sensory sensitivity rather than MSI. The relationships between MSI, illusion susceptibility, ATs, and AEs appear complex and require further investigation.

How teachers' tone of voice shapes students' emotions, behaviour, and psychological needs satisfaction: A comparison of students with and without ADHD symptoms.



Chelsea Harmsworth¹, Claire Oakley¹, Maren Schmidt-Kassow²
and Silke Paulmann¹

¹ University of Essex

² University of Frankfurt, Germany

charms@essex.ac.uk

Teachers' tone of voice plays a crucial role in classroom communication, shaping students' emotions, behaviour and perceived satisfaction of their basic psychological needs. Despite individuals with attention deficit hyperactivity disorder (ADHD) exhibiting differences in vocal-emotion recognition, and known poor teacher-student relationships, the effect of teachers' vocal tones has not been tested in ADHD students. Here, we played autonomy-supportive, neutral, and controlling sounding teacher voices to 266 students scoring high on the Adult ADHD Self-Report Scale (ASRS v1.1) and 363 neurotypical (NT) students, with approximately 50% females in each group. As expected, all students reported lower well-being, self-disclosure, self-esteem, and psychological needs satisfaction after being exposed to controlling sounding voices, compared to neutral and autonomy supportive ones. Autonomy-supportive tones led to more positive emotions, and stronger anticipated psychological needs satisfaction for all students. However, students with ADHD were more sensitive to neutral and controlling sounding voices, anticipating higher negative emotions and perceived criticism, lower self-esteem, and feeling less relaxed and happy. The pattern of negative perceptions of the neutral voices was not evident for NT students. These findings demonstrate that the way teachers speak meaningfully shapes students' psychological and behavioural engagement, with particularly strong implications for students with ADHD. Using an autonomy-supportive speaking style may mitigate ADHD-related vulnerabilities in social-emotional processing. Enhancing teachers' awareness and use of autonomy-supportive vocal communication may offer a low-cost, high-impact strategy to promote more inclusive, psychologically safe learning environments.

Effects of action choice and outcome valence on social sense of agency.

Katerina Kokmotou, Ieva Lukosiunaite, Natalie Wyer and Andrew Bayliss

University of East Anglia

K.Kokmotou@uea.ac.uk

Sense of agency is the subjective experience that one's action caused an effect. Social sense of agency refers to situations whereby an action elicits a social response from another person. This study investigated how action choice and action-outcome contingencies influence social sense of agency. In a mixed-design experiment (N = 66), participants completed a computer-based task in which they viewed images of individuals and changed those individuals' facial expressions by pressing one of two keyboard keys. There were two Choice conditions (between-subjects). In the 'No Choice' condition, participants were instructed which key to press. In the 'Free Choice' condition, participants freely selected which key to press. Emotional valence (happy vs disgusted) and outcome probability (80% vs 20%) varied within-subjects, with valence-probability mappings specific to face-key pairings. Participants rated sense of agency after each trial. Sense of agency was higher for happy than disgusted expressions, and for probable than improbable outcomes. A significant interaction further showed that sense of agency was higher for happy than disgusted

expressions only in the ‘Free Choice’ condition. These findings suggest that social sense of agency is affected by both outcome valence and probability. Importantly, social responses are differentially influential only when actions are freely chosen.

Familiarity effect on misidentification of GAN-generated faces.



Magdalena Lazarczyk^{1,2}, Hantao Liu², Walter Colombo²,
Christoph Teufel^{1,3} and Victor Navarro^{1,3}

¹ School of Psychology, Cardiff University

² School of Computer Science, Cardiff University

³ Cardiff University Brain Research Imaging Centre (CUBRIC)

lazarczykm@cardiff.ac.uk

Familiarity improves facial recognition by reducing the likelihood with which fine-grained variability in facial features (e.g., expression and lighting), is confused with variation in identity. This phenomenon has been demonstrated using sorting tasks in which participants sort a collection of face images based on perceived identity. Familiar face exemplars are typically sorted into fewer piles than unfamiliar ones, suggesting familiarity makes recognition less sensitive to small feature variations. Here, we investigated the utility of stimuli generated with generative adversarial networks (GANs) to study the effects of familiarity on face perception in a sorting task. We aimed to perform a replication of previous findings, and to determine whether GAN-generated face stimuli can provide feature variability comparable to that of real photos and whether they can refine identity perception paradigms. In our sorting task, familiarity did not influence the number of formed piles. However, it reliably affected the frequency of grouping faces of different identities together (misidentification). In our second study, we modulated the misidentification effect by applying a face image calibration technique that manipulated between- and within-identity variability using morphs combining many identities. We discuss the methodological differences behind our unsuccessful replication and further applications of GAN-generated images for face perception.

Can self versus other intentions be differentiated using representational similarity analysis?



Kyle Chillingsworth and Sam Gilbert

University College London

kyle.chillingsworth.25@ucl.ac.uk

One’s cognitive goal-oriented intentions can be decoded using MVPA analysis of fMRI data (Haynes et al., 2007). We are undertaking a re-analysis of data from one such study: Gilbert and Fung (2018). In their study, participants were tasked with completing a collaborative 2-player pipe-sorting game to guide a falling ball to a goal - measuring action plans and intended goals (Pacherie & Haggard, 2010). Most notably, it was found possible to cross-classify the multivariate patterns associated with encoding one’s own action plan (i.e., what pipe system to choose to complete the goal) with that of the inferred action plan of the other agent. We plan to further this finding, using representational similarity analysis (Popal et al., 2019) to elucidate how the brain differentially represents one’s own versus another agent’s action plans. Further, the application of haemodynamic intention decoding to develop a cognitive brain-computer interface has long been debated (e.g., Haynes, 2014); however, ROIs most effective in such searchlight decoding are found deep within the

sulci of the brain, inaccessible by fNIRS. We aim to discover whether reliable intention decoding accuracies can be achieved via whole-brain classification of only the cerebral cortex, elucidating the possibility of developing a cognitive haemodynamic BCI.

Gilbert, S. & Fung, H. (2018). Decoding intentions of self and others from fMRI activity patterns. *Neuroimage*, 172, 278-290.

Haynes, J. D. (2014). The neural code for intentions in the human brain. In: Singh, I., Sinnott-Armstrong, W.P., Savulescu, J. (Eds.), *Bioprediction, Biomarkers, and Bad Behavior: Scientific, Legal, and Ethical Challenges* (pp. 173-187). Oxford University Press.

Haynes, J. D., Sakai, K., Rees, G., Gilbert, S. J., Frith, C., & Passingham, R. E. (2007). Reading hidden intentions in the human brain. *Current Biology*, 17, 323-328.

Pacherie, E. & Haggard, P. (2010). What are intentions? In: Nadel, L., Sinnott-Armstrong, W. (Eds.), *Conscious Will and Responsibility: A Tribute to Benjamin Libet* (pp. 70-84). Oxford University Press.

Popal, H., Wang, Y., & Olsen, I. R. (2019). A Guide to Representational Similarity Analysis for Social Neuroscience. *Social Cognitive and Affective Neuroscience*, 2019, 1243-1253.

Research Plan - How providing patient Autonomy Support through voice cues improves feelings of self-efficacy, job satisfaction and emotional well-being of health care providers.



Mayss Hassan
University of Essex
mayss.hassan@essex.ac.uk

This doctoral project investigates how nurses' communication style, specifically the use of an autonomy supportive (AS) voice, affects their self-efficacy, job satisfaction, and emotional well-being. Providing autonomy support through the way patients are addressed is well documented to benefit patients. Yet, the impact of using AS communication for the healthcare provider remains underexplored. Adjacent research suggests that the way we speak can influence our own emotions, allowing speculation that using AS communication may benefit nurses as well as patients (Stel et al., 2012). There is also limited evidence that general communication training can improve self-efficacy and job satisfaction (McGilton et al., 2006; Lindig et al., 2024). This study explores how AS ways of speaking can benefit nurses. An experimental group will receive instructions on the benefits of autonomy supportive communication and training on how to produce it. A control group will receive general communication guidance, and a no-intervention group will receive no instructions. Nurses will then be asked to imagine patient scenarios and to communicate in an autonomy supportive way. Outcomes include self-efficacy, job satisfaction, and emotional well-being, measured using validated instruments (Zachariae et al., 2015; Feng et al., 2024; Thompson, 2007) and analysed using MANOVA. By shifting focus from patient to provider outcomes, this research offers a novel perspective with implications for nurse well-being and workforce stability.

This work was supported by the EEPRU- Essex ESNEFT Psychological Research Unit for Behaviour, Health and Well-Being.

Decoding the neural signatures of scene category using children’s event related potentials.



Elizabeth Watson¹, Inês Mares², George Malcolm¹ and Louise Ewing¹

¹ University of East Anglia

² William James Center for Research, Ispa - Instituto Universitario, Portugal

lizzie.watson@uea.ac.uk

Decoding has become a prominent and useful tool to better understand the neural underpinnings of scene processing, offering insight into the EEG signal beyond traditional methods. These methods have revealed novel findings into adult processing, however the field is yet to apply these methods to children’s EEG data, and the efficacy of such approaches is unknown. Recent work in scene processing development suggests children follow a protracted development toward what we understand as adult scene processing. The current study addresses potential advantages in applying decoding analyses to children’s EEG, focusing on 7-year-old children following research into changes across middle childhood. 19 children (aged 7 years), and an adult control group, passively viewed 300 greyscale scene images while recording EEG. ERPs (event related potentials) were decoded across posterior electrode sites using MVPA. We decoded scenes at the superordinate level (indoor, outdoor), basic indoor (bedroom, supermarket, café) and outdoor level (beach, garden, street). Our results suggest decoding is an effective tool to better understand children’s processing of scenes and shows distinct temporal profiles across categories and between children and adults. We highlight the exciting potential use for decoding in future developmental work, and the theoretical implications regarding children’s early scene perception.

Evaluating decision-making, interoception and physiological arousal in adults with ADHD traits.



Niharika Madala and Gethin Hughes

University of Essex

nm21667@essex.ac.uk

Disadvantageous decision-making in ADHD is often attributed to impulsivity, but may also reflect broader deficits in future-outcome anticipation, feedback processing, and emotional regulation. This study examined mechanisms underlying heightened risk-taking in adults with ADHD traits, focusing on interoception and physiological arousal. A modified Columbia Card Task (CCT) was used to assess risk-taking across conditions. Measures included impulsivity, ADHD traits, anxiety, and interoceptive awareness. Skin conductance responses (SCR) were recorded to index physiological arousal during decision-making. Risk-taking behaviour was additionally analysed using a decision model, which examined how participants updated their risk preferences across trials and how consistently they followed their target during decision-making processes. ADHD traits and motor impulsivity significantly predicted increased risk-taking, reflected in a higher number of cards selected. Participants showed sensitivity to feedback, selecting fewer cards following losses in high-risk conditions. However, individuals with higher ADHD traits reported reduced interoceptive awareness, which, alongside anxiety, was associated with increased risk-taking. Analyses of physiological data are ongoing; we hypothesize that higher ADHD traits will be associated with attenuated SCR during risky trials. Risk-taking in ADHD appears to reflect a complex interaction between impulsivity, interoceptive deficits, and physiological feedback, highlighting potential targets for interventions aimed at improving self-regulation and decision-making.

This work was supported by the Essex Centre for Behavioural Science, University of Essex.

The impact of mental health-related social media posts on young adults' mental health reporting: Results from two experimental studies.



Isaac Winterburn¹, Catherine Cunningham-Rowe¹, Carolina Guzman-Holst¹, Argyris Stringaris^{2,3}, Jack Andrews¹ and Lucy Foulkes¹

¹ University of Oxford

² University College London

³ National and Kapodistrian University of Athens, Greece

isaac.winterburn@psy.ox.ac.uk

The prevalence inflation hypothesis suggests rising mental health awareness efforts are contributing to increased reports of common mental health problems. However, few studies have tested this to date. In this poster, two experiments (N = 271, N = 611) with UK-based young adults (aged 18-24) are presented. Participants were exposed to Instagram posts from UK mental health charities which normalised and shared relevant psychoeducational information about mental health problems in general (Experiment 1) or anxiety disorders specifically (Experiment 2). Relative to Instagram posts from UK cycling charities (control group), exposure to mental health or anxiety-related content predicted significantly higher state and trait anxiety and a wider concept breadth of mental disorder, whilst adjusting for baseline outcomes. Exploratory analyses found those with higher baseline trait anxiety were more sensitive to the effects of exposure on state anxiety but less sensitive to the effects of exposure on concept breadth. Noting small effect sizes, these results indicate brief exposure to mental health awareness efforts can affect in-the-moment anxiety and how young adults view symptoms within themselves and others. Mental health awareness efforts may therefore be one factor contributing to increased reports of mental health problems. Recommendations for future research will be discussed.

This work was supported by an ESRC GUDTP Studentship awarded to the first author (2928840) and a prudence trust fellowship awarded to the last author.

The weight of words on TikTok: The effect of anti-fat microaggressions on viewers' mood and self-esteem.



Angela Meadows

University of Essex

a.meadows@essex.ac.uk

Anti-fat microaggressions are rampant on TikTok, however little research has explored their impact on viewers. The present study used an experimental design to investigate the impacts anti-fat microaggressions on TikTok on mood and self-esteem in an online UK-based sample (N=286; mixed community/student sample, 75.9% women, 22.4% men, 1.7% non-binary, none other-identified; 55.9% white; 37.8% self-classified “overweight”). Participants were randomized into either a stigma (n=138) or control (n=148) condition. Those in the stigma condition watched a fat acceptance TikTok with (stigma condition) or without (control condition) an anti-fat microaggression comment attached. Results indicated that fat participants experienced worse mood in the stigma condition, M=4.45, SD =1.42, versus the control condition M=2.88, SD=1.67, $t(106)=5.28$, $p=.009$, Cohen's $d=1.00$. No differences were observed for self-worth, or for non-fat participants. Participants with higher anti-fat attitudes tended to find the stigma video funny, $r(136)=-.200$, $p=.019$, feel better about themselves in the stigma condition, $r(136)=.277$, $p=.001$ and report worse mood in the control condition, $r(146)=.250$, $p=.002$. Even one anti-fat comment on a size acceptance video has implications for viewers' mood and wellbeing. TikTok's zero-tolerance policy toward bullying requires stronger enforcement.

EPS

Experimental
Psychology
Society

15th EPS Frith Prize Talk



will be delivered by

Denise Cadete

Birkbeck, University of London

Perceiving the real and the supernumerary body.



5.15pm, Wednesday 1st July 2026

EBS 2.2

No registration is required to attend in person.

EPS

Experimental
Psychology
Society

33rd EPS Prize Lecture



will be delivered by

Dr Melissa Colloff
University of Birmingham

**Eyewitness identification in the dock -
and what memory models can do about it.**



5.45pm, Thursday 2nd July 2026

EBS 2.2

No registration is required to attend in person.

**APPLYING TO JOIN THE
EXPERIMENTAL PSYCHOLOGY SOCIETY**

To apply for membership to the Experimental Psychology Society please go to the EPS website: <https://eps.ac.uk/applying-for-membership/> and fill in the form, ensuring all boxes are completed and returning to the EPS Administrator as a PDF file to expsychsoc@kent.ac.uk.

Application forms should be sent to the EPS Administrator by one of the application deadlines, 1st March or 1st September.

All information should be included on the form, not on additional sheets.

Under "Publications", only articles that have appeared in print by the time of nomination, in peer-reviewed psychological or cognate journals, should be listed. Because of space limitations, a complete publication list is not required; *two* recent examples, where the nominee is in a prominent authorship position (e.g. sole, first or last), are sufficient.

Applicants must be nominated by one EPS Ordinary Member.

CRITERIA AND PROCEDURES TO JOIN

Soon after the closing date of the relevant deadline, brief details of all candidates will be circulated to members of the Society, who may request further information if they wish. The nomination forms will be considered by the Committee at their Spring and Autumn meetings. The EPS Administrator will check whether each candidate is eligible for admission to Ordinary Membership, i.e. those candidates who have:

- a) secured a PhD
- b) published at least two independent accounts of their work in a reputable, peer-reviewed psychological journals
- c) personally delivered an oral paper or poster to the Society at one of the three EPS scientific meetings held each year

Candidates who do not meet all these criteria can be considered only in exceptional circumstances. Those who are resident outside Europe will be asked for assurance that they can attend meetings reasonably often.

Any candidate not selected as eligible by the EPS Administrator will be informed of this and will be advised whether they may again be proposed for membership in a future year and if so subject to what conditions. The list of those selected as eligible will be put to the Annual General Meeting in January or the Summer Business meeting for approval.

Meeting Accommodation

We recommend booking accommodation as early as possible.

On-campus accommodation is available from £49 per person, per night and [can be booked here](#).

Options:

- **Room only:** £49 per single en-suite, per night
Use promotion code: **EPSMEETINGRO**
- **Bed and breakfast:** £55 per single en-suite, per night, breakfast in one of the campus' food outlets
Use promotion code: **EPSMEETINGBB**

Enter the relevant code in the “Promotion code” box (located just before the search button when booking).

Please note that all room cancellations are non-refundable.

Other accommodation options are available in Colchester and the surrounding area.

A selection are listed below, and a more comprehensive overview can be found [online](#).

- Premier Inn Colchester Town Centre (Castle) Hotel: 20–30 minutes by bus from Essex Business School
- The George Hotel: 20 minutes by bus from Essex Business School
- North Hill Hotel: 35 minutes by bus from Essex Business School
- St Nicholas Hotel – Surya Hotels: 20–30 minutes by bus from Essex Business School
- Brook Red Lion Hotel: 20 minutes by bus from Essex Business School
- Best Western the Rose and Crown Hotel: 10–15 minutes by bus from Essex Business School
- Wivenhoe House Hotel: 12 minutes on foot from Essex Business School

Travel

By Air

London Stansted Airport

Colchester Campus is not far from Stansted Airport. The quickest way to travel is by [National Express](#) to Colchester City Centre. From there you can get a bus or taxi to the campus.

Alternatively, you can use the [X20 bus service](#) which costs just £3 for a single fare ticket.

London Heathrow Airport

If you are arriving at Heathrow, the best option is to get the [National Express](#) coach service which runs to and from Colchester City Centre. Alternatively, you can take a [train from Heathrow \(all terminals\) to London Liverpool Street](#) and then another train to Colchester. Once in Colchester, you can get a bus, or taxi to the campus.

London Gatwick Airport

There are regular [train services from Gatwick to London Liverpool Street Station](#). You'll then need to take another train to Colchester. Once in Colchester, you can get a bus, or taxi to the campus.

London Luton airport

If you are arriving at London Luton airport, the best option is to get the [National Express](#) coach. Alternatively, you can take a [train from Luton to London Liverpool Street](#) and then another train to Colchester. Once in Colchester, you can get a bus, or taxi to the campus.

By Rail

[Greater Anglia](#) provides frequent trains from London Liverpool Street to Colchester North station. London Liverpool Street has a direct link to Stansted Airport as well as Underground and bus services for travel from and to Gatwick and Heathrow Airports. The train journey from Liverpool Street takes just under an hour and you can get a bus or taxi from the station to us.

Colchester is served by three main railway stations: Hythe station, Colchester North station, and Colchester Town station, plus the nearby Wivenhoe station, all of which sit around the University of Essex campus and are linked by frequent buses. Hythe is the closest, just a few minutes away by bus; Colchester North is about 15–25 minutes away with direct routes; Colchester Town in the centre is around 15–20 minutes by bus; and Wivenhoe is about 10–15 minutes away. Regular services such as the 51, 74, 76, 77 and 87 run between all these stations and the campus, making it straightforward to travel even if you are unfamiliar with the area.

By Car

Our postcode is CO4 3SQ (for SatNav purposes use CO7 9HT which will take you to the main Wivenhoe entrance.)

When you arrive in Colchester, follow road signs to the University (off the A133) to access to our main visitor car parks, which is via the B1028, Colchester Road.

[Road route to Colchester Campus](#)

Getting Around the City and Local Area

[First Bus](#) provide most bus services in and around Colchester and the University. Tickets can be bought online or via their app as well as contactless payment on the bus itself.

If you are staying in Colchester town, you can take buses such as the 87 or 51 directly to the University of Essex campus; these run frequently from the town centre and stop at “Subway” on Boundary Road, which is next to the Essex Business School (EBS). Alternatively, taxis are readily available from the town centre and railway stations. Uber also operate in the area, offering a quick and convenient journey to campus.

Conference Dinner

The conference dinner for EPS Essex will be held on 2nd July from 7:30pm at Church Street Tavern, 3 Church Street, Colchester, Essex, CO1 1NF. The Society has arranged a bus to take attendees from campus to the conference dinner, as well as returning attendees to campus after the dinner, if needed.

Filling in the online form does not guarantee a place at the dinner, as places are filled on a first come, first served basis. If you are not successful on securing a place at the dinner, we will automatically add you to the waiting list.

You will NOT receive a confirmation email after completing the form, but will see a success message on the screen after you have completed the form and pressed submit.

Once Conference Dinner registration closes, we will contact everyone who submitted and you will receive an invoice for payment of the dinner.

The booking form was available until 5pm (UK time) on Monday 22nd June.

MAIN COURSES

Merguez Stuffed Lamb Breast, New Potato, Fennel, Black Olive, Orange, Pea & Mint Hummus
(Gluten Free)

Black Garlic Market Fish, Asparagus, Pea, New Potato, Warm Tartare Sauce, Dill Pickled Cucumber
(Gluten free and can be dairy free if served without cream in the sauce)

Ardleigh Asparagus, Baby Fennel Tart Tatin, Sorrel & Spinach Velouté, Pickled Shallot & Watercress
(Vegan)

DESSERT

Brioche French Toast, Brown Bread Ice Cream, Ardleigh Strawberries, Feuilletine

Tosier Chocolate Cremeux, Cherries, Kirsch Liqueur, Hazelnut Cookie (Gluten Free and Vegan)

Lemon Meringue Tart, Raspberries, Tonka Bean Ice Cream (Dairy Free ice cream available)

If there are any special dietary requirements, please indicate these on the form so we can liaise with the venue.

Eating and Drinking

Food and Drink on Campus

The conference is being held in the Essex Business School (EBS) at the University of Essex - Colchester campus. To help you find your way around the Colchester campus, use the [interactive map](#) to locate specific buildings.

There are several options for food and drink near the conference venue:

- [Mission Café](#) (within the Innovation Centre)

Mission Café is located opposite the North Towers car park within the Innovation Centre, and is the closest outlet to the EBS. It offers a variety of fresh food options including panini, wraps, salads, pasta dishes, pizza and flatbreads. Snacks and drinks are available all day.

- Greenhouse Café (Square 3 on campus)

Operated by the Student Union, this café offers panini, bagels, salads, and wraps. Snacks and drinks are available all day.

- SU Bar (Square 3 on campus)

The largest bar on campus, it serves pizza from 12PM.

- The Huts (Square 4 on campus)

Open between 12-2PM, the Grill and Fusion huts provide lunch options such as kebabs and noodle dishes.

- Crumbs (Square 3 on campus)

Crumbs is the go-to place for morning pastries, hot grab-and-go breakfast muffins and baps, hot donburi bowls (available at lunchtime), tea, and freshly brewed single origin Union coffee.

- Buffalo Joe's (Square 3 on campus)

From full English breakfast to homemade burgers, buttermilk chicken, plant-based burgers, loaded fries and more.

- SU Store (Square 4 on campus)

This store is open Monday – Friday 08.00-18.00 and Saturday and Sunday 10.00-17.00. It sells groceries, frozen meals, over the counter medicine, and much more.

Food and Drink Off-Campus

The following restaurants are all within two miles (3+ km) of the campus:

- [The Flag Inn](#)
- [Bambu](#)
- [The Greyhound](#)

Within the town centre of Colchester, there is a great selection of restaurants, bars, and pubs. For a list of food options, please visit the [Colchester website](#).

Things to do in Colchester, Essex

During the meeting's breaks, you are welcome to explore Wivenhoe Park, a 200-acre landscape within the Colchester campus, which is home to a wide variety of trees, flora, and fauna.

Colchester Castle Museum (<https://colchester.cimuseums.org.uk/>)

One of England's most important heritage sites.

Walking Tour of the Roman and Medieval Gates

(<https://www.visitcolchester.com/listing/a-walking-tour-of-the-roman-and-medieval-gates/122892101/>)

As Britain's oldest recorded city, this walking tour offers an exploration of Colchester's Roman history.

The Wivenhoe Trail (<https://www.visitcolchester.com/listing/the-wivenhoe-trail/125038101/>)

One of the most popular walks in Colchester, allowing visitors to stroll along the river from the University.

Firstsite (<https://firstsite.uk/>) and The Minories Galleries (<https://www.theminories.org/>)

Contemporary and historical art galleries in Colchester.

Beth Chatto's Plants and Gardens (<https://www.bethchatto.co.uk/>)

A 6-acre garden renowned internationally for its design, ecological innovation, and plant diversity.

Business Meeting

A Business Meeting will be held on Thursday 2nd July 2026 between 12:15pm and 1:00pm at the Essex Business School, EBS 2.34, at the University of Essex, Colchester, CO4 3SQ.

AGENDA

26/23 Minutes of the Business Meeting, held at Newcastle University on Tuesday 31st March 2026

See Attachment 1.

26/24 Matters Arising

26/25 Secretary's Report

26/25.1 Hon. Secretary's Report

26/26 Treasurer's Report

26/26.1 Treasurer's Report

26/27 QJEP Editor's Report

26/27.1 Editor's Report

26/28 Arrangements for Future Meetings

26/29 Any Other Business

26/30 Date, Time and Place of Next Meeting

Business Meeting

A Business Meeting was held on Tuesday 31st March 2026 between 12:30pm and 1:00pm in the Herschel Building LT2 at Newcastle University, Herschel Building, Newcastle upon Tyne, NE1 7RU. ~30 attendees.

MINUTES

26/15 Minutes of the Annual General Meeting, held at University College London on Thursday 8th January 2026

Approved without any changes.

26/16 Matters Arising

There were no matters arising.

26/17 Secretary's Report

26/17.1 Hon. Secretary's Report

The Secretary gave a verbal report outlining funding schemes which are currently open and encouraged applications.

26/18 Treasurer's Report

26/18.1 Treasurer's Report

Members asked how to pay the Voluntary Registration Fee when not presenting and an idea proposed was to create a QR code for use at future meetings.

26/19 QJEP Editor's Report

26/19.1 Editor's Report

26/20 Arrangements for Future Meetings

The Conference Secretary gave a verbal report on upcoming meetings and encouraged members to submit their abstracts for the upcoming Essex meeting.

Members were also encouraged to submit proposals to host EPS meetings in 2028 and 2029.

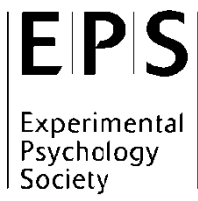
The Conference Secretary also thanked the local organizing team for their efforts.

26/21 Any Other Business

There was no AoB.

26/22 Date, Time and Place of Next Meeting

The next business meeting will be at the University of Essex in July 2026.



EPS Meeting: University College London. January 2027.

Local Organiser: Adam Parker

Colchester Campus Map



Map Key:

- Cycle Path
- 🚲 Cycle Parking
- 🚏 Bus Stop
- Main Road
- Main Squares
- Path
- 🚗 Vehicle Barrier
- Wivenhoe Trail

Area:

- 🟦 North Campus
- 🟨 Central Campus
- 🟪 South Campus

Our Learning Spaces

- A Albert Sorman Library (D6)
- B The Hex (D6)
- C Ivor Crewe Lecture Hall (E6)
- D Lecture Theatre Building (E6)
- E The Limehouse (E6)
- F The Tony Rich Teaching Centre (D5)
- G North Teaching Centre (E7)
- H The Orangery (E5)
- I Silberman Student Centre (D6)
- J Essex Business School (C4)
- K STEM Building (E6)
- L Constable Building (C8)

Our Art Spaces

- M Art Exchange – Gallery (D6)
- N Lakeside Theatre (D6)

Our Knowledge Gateway

- O Parkside Office Village
- P Innovation Centre (E4)

Student Residences

- South Courts (1-8)**
- 1 Harwich (F5/G5)
 - 2 Brightlingsea (G5)
 - 3 Manningtree (G5/G6)
 - 4 Walton (F5/G)
 - 5 Thaxted (G6)
 - 6 Frinton (F6)
 - 7 Rowneidge (F5/G6)
 - 8 Atinsford (F5)

South Towers (9-10)

- 9 Bertrand Russell (F6)
- 10 Eddington (E6/F6)

North Towers (11-14)

- 11 Rayleigh (D6)
- 12 Kymas (C5)
- 13 Tawney (C5)
- 14 William Morris (C5)

The Houses (15-21)

- 16 Anne Knight (C5)
- 17 Swaynes (C5)
- 18 Isaac Rawbor (B6)
- 19 Richard Woods (B6)
- 20 Thomas Hopper (B6)
- 21 Josephine Butler (B5)

The Meadows (25-30)

- 25 Cole (C2)
- 26 Arber (C3)
- 27 Godwin (B2/C2)
- 28 Eilon (B2)
- 29 Tansley (B2/C2)
- 30 Conway (C3)

University Quays (22-24)

- 22 Sainy Quay (C1/D1)
- 23 Hawkins Quay (C1)
- 24 Matthews Quay (C1)

Disabled Visitors

For information on access and parking arrangements, please contact Visitors' Reception: +44 (0)1206 874321