

DANIEL PEARSON

PERSONAL INFORMATION

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RESEARCH POSITIONS

- 2020–Present | **Postdoctoral Research Associate**, SCHOOL OF PSYCHOLOGY, UNSW SYDNEY
- 2019–2020 | **Postdoctoral Research Fellow**, INSTITUTE OF COGNITIVE NEURSCIENCE, UCL
Worked on projects related to the *cognitive neuroscience of attention* under the supervision of Prof. Nilli Lavie.
Designed, programmed and collected data for experiments aimed at investigating the influence of perceptual and cognitive capacity on stimulus detection and attentional capture.
Co-supervised research projects for students in Cognitive Neuroscience and Cognitive and Decision Science Masters programs.
- 2013–2015 | **Research Assistant**, SCHOOL OF PSYCHOLOGY, UNSW SYDNEY
Worked on projects relating to *attention*, *cognitive psychology*, and *associative learning*, under the supervision of Prof. Mike Le Pelley, Dr. Tom Beesley, and Prof. Thomas Whitford.
Designed, programmed, and collected data for behavioural, eye-tracking, and electroencephalography (EEG) experiments aimed at investigating the influence of reward-learning and prediction on perception and attention.
Contributed to data analysis, writing of manuscripts for publication in peer-reviewed journals, and development of successful grant applications.

EDUCATION

- 2015–2019 | **PhD/Master of Psychology (Clinical)**, UNSW SYDNEY, Australia
Thesis: “*Learning to avoid looking: The effect of reward on attentional capture and control*”
Supervisor: Prof. Mike Le Pelley
Co-supervisors: Prof. Simon Killcross & Assoc. Prof. Thomas Whitford
Brief Synopsis: Stimuli paired with large reward are more likely to capture attention than stimuli paired with lesser (or no) reward, even when such capture is counter to an observer’s current goals. This phenomenon is known as *value-modulated attentional capture*. This thesis investigated the mechanisms underlying the influence of reward on attentional capture and control processes using behavioural and eye-tracking methods.
- 2008–2011 | **Bachelor of Science (Advanced) in Psychology**, UNSW SYDNEY, Australia
First Class Honours | 91/100

Thesis: “Sexual dimorphism in mechanisms of attentional control in the transmembrane domain Neuregulin 1 mouse model”
Supervisors: Prof. Simon Killcross & Dr. Tim Karl

SCHOLARSHIPS AND AWARDS

- 2019 Dean’s Award for Outstanding PhD Thesis, UNSW SYDNEY
- 2019 Faculty of Science Writing Scholarship (\$6000), UNSW SYDNEY
- 2018 Best Clinical Research Presentation, FORENSIC AND CLINICAL PSYCHOLOGY RESEARCH CONFERENCE, UNSW
- 2017 School of Psychology Award, UNSW POSTGRADUATE RESEARCH COMPETITION
- 2015 Best Human Research Presentation, AUSTRALIAN LEARNING GROUP CONFERENCE
- 2015–2019 Research Training Program Scholarship, DEPARTMENT OF EDUCATION & TRAINING, AUSTRALIAN GOVERNMENT
- 2008 Academic Achievement Award (\$4000) for most outstanding student, UNSW SYDNEY

TEACHING

- 2017–Present | **Head Tutor**, SCHOOL OF PSYCHOLOGY, UNSW
PSYC2001: Research Methods 2
- 2015–Present | **Casual Tutor**, SCHOOL OF PSYCHOLOGY, UNSW
PSYC2001: Research Methods 2
PSYC3361: Psychology Research Internship (MATLAB Programming Stream)
PSYC2071: Perception & Cognition
- 2015 | **Eye-tracking Workshop**, SCHOOL OF PSYCHOLOGY, UNSW
Attended by approximately 30 research staff within the School of Psychology, UNSW

PEER REVIEWED PUBLICATIONS

- Le Pelley, M. E., Ung, R., Mine, C., Most, S., Watson, P., **Pearson, D.**, & Theeuwes, J. (in press). Reward learning and statistical learning independently influence attentional priority of salient distractors in visual search. *Attention, Perception, & Psychophysics*.
- Pearson, D.**, Watson, P., Albertella, L., & Le Pelley, M. E. (in press). Attentional economics links value-modulated attentional capture and decision-making. *Nature Reviews Psychology*.
- Pearson, D.** & Le Pelley, M. E. (2021). Reward encourages reactive, goal-directed suppression of attention. *Journal of Experimental Psychology: Human Perception and Performance*, 47(10), 1348.
- Pearson, D.**, Watson, P., & Le Pelley, M. E. (2021). How do competing influences of selection history interact? a commentary on luck et al.(2021). *Visual Cognition*, 29(9), 552–555.

- Watson, P., Vasudevan, A., **Pearson, D.**, & Le Pelley, M. E. (2021). Eating restraint is associated with reduced attentional capture by signals of valuable food reward. *Appetite*, 159, 105050.
- Pearson, D.** & Le Pelley, M. E. (2020). Learning to avoid looking: Competing influences of reward on overt attentional selection. *Psychonomic Bulletin & Review*, 27(5), 998–1005.
- Pearson, D.**, Watson, P., Cheng, P. X., & Le Pelley, M. E. (2020). Overt attentional capture by reward-related stimuli overcomes inhibitory suppression. *Journal of Experimental Psychology: Human Perception and Performance*, 46(5), 489–501.
- Watson, P., **Pearson, D.**, & Le Pelley, M. E. (2020). Reduced attentional capture by reward following an acute dose of alcohol. *Psychopharmacology*, 237(12), 3625–3639.
- Watson, P., **Pearson, D.**, Theeuwes, J., Most, S. B., & Le Pelley, M. E. (2020). Delayed disengagement of attention from distractors signalling reward. *Cognition*, 195, 104125.
- Albertella, L., Le Pelley, M. E., Chamberlain, S. R., Westbrook, F., Fontenelle, L. F., Segrave, R., Lee, R., **Pearson, D.**, & Yücel, M. (2019). Reward-related attentional capture is associated with severity of addictive and obsessive-compulsive behaviors. *Psychology of Addictive Behaviors*, 33(5), 495.
- Le Pelley, M. E., Watson, P., **Pearson, D.**, Abeywickrama, R. S., & Most, S. B. (2019). Winners and losers: Reward and punishment produce biases in temporal selection. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 45(5), 822–833.
- Watson, P., **Pearson, D.**, Chow, M., Theeuwes, J., Wiers, R. W., Most, S. B., & Le Pelley, M. E. (2019). Capture and control: Working memory modulates attentional capture by reward-related stimuli. *Psychological science*, 30(8), 1174–1185.
- Watson, P., **Pearson, D.**, Most, S., Theeuwes, J., Wiers, R. W., & Le Pelley, M. E. (2019). Attentional capture by pavlovian reward-signalling distractors in visual search persists when rewards are removed. *PloS one*, 14(12), e0226284.
- Watson, P., **Pearson, D.**, Wiers, R. W., & Le Pelley, M. E. (2019). Prioritizing pleasure and pain: Attentional capture by reward-related and punishment-related stimuli. *Current Opinion in Behavioral Sciences*, 26, 107–113.
- Kennedy, B. L., **Pearson, D.**, Sutton, D. J., Beesley, T., & Most, S. B. (2018). Spatiotemporal competition and task-relevance shape the spatial distribution of emotional interference during rapid visual processing: Evidence from gaze-contingent eye-tracking. *Attention, Perception, & Psychophysics*, 80(2), 426–438.
- Albertella, L., Copeland, J., **Pearson, D.**, Watson, P., Wiers, R. W., & Le Pelley, M. E. (2017). Selective attention moderates the relationship between attentional capture by signals of nondrug reward and illicit drug use. *Drug and Alcohol Dependence*, 175, 99–105.
- Le Pelley, M. E., **Pearson, D.**, Porter, A., Yee, H., & Luque, D. (2017). Oculomotor capture is influenced by expected reward value but (maybe) not predictiveness. *The Quarterly Journal of Experimental Psychology*, Advance online publication.
- Le Pelley, M. E., Seabrooke, T., Kennedy, B. L., **Pearson, D.**, & Most, S. B. (2017). Miss it and miss out: Counterproductive nonspatial attentional capture by task-irrelevant, value-related stimuli. *Attention, Perception, & Psychophysics*, 79(6), 1628–1642.

- Whitford, T. J., Jack, B. N., **Pearson, D.**, Griffiths, O., Luque, D., Harris, A. W., Spencer, K. M., & Le Pelley, M. E. (2017). Neurophysiological evidence of efference copies to inner speech. *eLife*, 6, e28197.
- Beesley, T., Vadillo, M. A., **Pearson, D.**, & Shanks, D. R. (2016). Configural learning in contextual cuing of visual search. *Journal of Experimental Psychology: Human Perception and Performance*, 42(8), 1173.
- Pearson, D.**, Osborn, R., Whitford, T. J., Failing, M., Theeuwes, J., & Le Pelley, M. E. (2016). Value-modulated oculomotor capture by task-irrelevant stimuli is a consequence of early competition on the saccade map. *Attention, Perception, & Psychophysics*, 78(7), 2226–2240.
- Beesley, T., Nguyen, K. P., **Pearson, D.**, & Le Pelley, M. E. (2015). Uncertainty and predictiveness determine attention to cues during human associative learning. *The Quarterly Journal of Experimental Psychology*, 68(11), 2175–2199.
- Beesley, T., **Pearson, D.**, & Le Pelley, M. (2015). Implicit learning of gaze-contingent events. *Psychonomic Bulletin & Review*, 22(3), 800–807.
- Beesley, T., Vadillo, M. A., **Pearson, D.**, & Shanks, D. R. (2015). Pre-exposure of repeated search configurations facilitates subsequent contextual cuing of visual search. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 41(2), 348.
- Failing, M., Nissens, T., **Pearson, D.**, Le Pelley, M., & Theeuwes, J. (2015). Oculomotor capture by stimuli that signal the availability of reward. *Journal of Neurophysiology*, 114(4), 2316–2327.
- Le Pelley, M. E., **Pearson, D.**, Griffiths, O., & Beesley, T. (2015). When goals conflict with values: Counterproductive attentional and oculomotor capture by reward-related stimuli. *Journal of Experimental Psychology: General*, 144(1), 158.
- Pearson, D.**, Donkin, C., Tran, S. C., Most, S. B., & Le Pelley, M. E. (2015). Cognitive control and counterproductive oculomotor capture by reward-related stimuli. *Visual Cognition*, 23(1-2), 41–66.

PREPRINTS

- Watson, P., Pavri, Y., Le, J. T., **Pearson, D.**, & Le Pelley, M. (2021). Attentional capture by signals of food and drink reward persists following outcome devaluation. *PsyArXiv*. doi:10.31234/osf.io/2jmpb

BOOK CHAPTERS

- Beesley, T., **Pearson, D.**, & Le Pelley, M. E. (2019). Eye-tracking as a tool for examining cognitive processes. In G. Foster (Ed.), *Biophysical measurement in experimental social science research*. Oxford, UK: Elsevier.
- Pearson, D.**, Beesley, T., & Le Pelley, M. E. (2019). Getting started with eye-tracking. In G. Foster (Ed.), *Biophysical measurement in experimental social science research*. Oxford, UK: Elsevier.

INVITED TALKS

Pearson, D., Watson, P., Albertella, L., & Le Pelley, M. (2021). Attentional economics: Linking value, attention, and choice. Queensland Brain Institute. University of Queensland, Brisbane.

CONFERENCE PRESENTATIONS AND POSTERS (FIRST AUTHOR)

Pearson, D., Albertella, L., Le, J., Porter, A., & Le Pelley, M. (2018). Examining the test-retest reliability of reward-modulated attentional biases. International Meeting of the Psychonomic Society. Amsterdam, The Netherlands.

Pearson, D. & Le Pelley, M. (2018). Learning to avoid looking: The effect of reward on attentional capture and control. 16th Annual Forensic & Clinical Psychology Research Conference. UNSW Sydney, Sydney.

Pearson, D., Watson, P., Cheng, P., & Le Pelley, M. (2018). Investigating attentional suppression of reward-related distractors. Australian Learning Group Christmas Workshop. UNSW Sydney, Sydney.

Pearson, D., Watson, P., Cheng, P., & Le Pelley, M. (2018). Investigating attentional suppression of reward-related distractors. 58th Annual Meeting of the Psychonomic Society. New Orleans, LA, USA.

Pearson, D., Albertella, L., Le, J., Porter, A., & Le Pelley, M. (2017). Examining the test-retest reliability of value-modulated attentional capture. Australian Learning Group Christmas Workshop. University of Sydney, Australia.

Pearson, D. & Le Pelley, M. (2017). Looking to avoid looking: Evidence for limited goal-directed control over value-modulated oculomotor capture. 58th Annual Meeting of the Psychonomic Society. Vancouver, Canada.

Pearson, D. & Le Pelley, M. (2017). Rewarding outcomes can influence both attentional capture and suppression. Selective Attention and Individual Difference in Motivation and Emotion Forum [Meeting at the 2017 Experimental Psychology Conference]. Shoal Bay, Australia.

Pearson, D., Hall, G., & Le Pelley, M. (2016). Looking to attend and ignore: Opposing influences of reward learning on attentional capture and suppression. 57th Annual Meeting of the Psychonomic Society. Boston, USA.

Pearson, D. & Le Pelley, M. (2016). Looking to avoid: Instrumental control in value-modulated attentional capture [invited talk]. How applicable are models of animal conditioning to human associative learning? [Symposium at the Combined Meeting of the International Society for Comparative Psychology and the Australian Learning Group]. University of Sydney, Australia.

Pearson, D., Whitford, T., & Le Pelley, M. (2016). Learning to attend and ignore: The influence of reward learning on attentional capture and suppression. European Conference on Visual Perception. Barcelona, Spain.

Pearson, D. & Le Pelley, M. (2015). Reward learning influences electrophysiological correlates of attentional capture and suppression. Associative Learning Symposium XIX. Gregynog Hall, Wales.

- Pearson, D. & Le Pelley, M. (2015).** Training, not volitional cognitive control, affects the magnitude of value modulated attentional capture. Australian Learning Group Midyear Conference. Blue Mountains, Australia.
- Pearson, D. & Le Pelley, M. (2014).** Don't look at the red circle: Instrumental, but not volitional, inhibition of value-modulated attentional capture. Australian Learning Group Christmas Workshop. UNSW Sydney, Australia.
- Pearson, D. & Le Pelley, M. (2013).** Productive and counterproductive attention: Learning about signals of value. Australian Learning Group Christmas Workshop. University of Sydney, Australia.

OTHER SELECTED ACADEMIC ACTIVITIES

CONFERENCE ORGANISATION:

- 2021 | **Australian Learning Group Summer Conference**, UNSW SYDNEY, SYDNEY
- 2021 | **2nd UNSW Virtual Workshop on Expectation, Perception & Cognition**
- 2020 | **UNSW Virtual Workshop on Expectation, Perception & Cognition**

COURSES AND TRAINING:

- 2016 | **Mini ERP Bootcamp**, BIRMINGHAM UNIVERSITY, BIRMINGHAM
Hosted by Prof. Steve Luck & Assoc. Prof. Emily Kappenman
- 2015 | **Hierarchical Bayesian Modelling Workshop**. UNSW SYDNEY, SYDNEY
Hosted by Dr. Chris Donkin & Dr. Don van Ravenzwaaij

INVITED REVIEWER:

Attention, Perception, & Psychophysics
 Cognitive, Affective, & Behavioural Neuroscience
 Frontiers in Psychology
 Human Brain Mapping
 Journal of Experimental Psychology: Human Perception & Performance
 Journal of Neuroscience Research
 Psychological Research
 Psychonomic Bulletin & Review
 Quarterly Journal of Experimental Psychology