

# Guy E. Hawkins

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## Education

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- Ph.D. in Psychology.** 2013.  
University of Newcastle, Australia.  
Advisors: Prof. Scott Brown, Prof. Andrew Heathcote.
- Bachelor of Psychology (Hons. Class 1, Faculty Medal).** 2008.  
University of Newcastle, Australia.  
Advisor: Prof. Deborah Hodgson.

## Employment

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- Senior Lecturer (USA equivalent: Associate Professor).** January 2022 – present.  
School of Psychological Sciences, University of Newcastle, Australia.
- Lecturer (USA equivalent: Assistant Professor).** January 2020 – December 2021.  
School of Psychological Sciences, University of Newcastle, Australia.
- Australian Research Council (ARC) Discovery Early Career Researcher Award (DECRA) Fellow.** January 2017 – December 2019.  
School of Psychological Sciences, University of Newcastle, Australia.
- Postdoctoral Research Fellow.** August 2014 – November 2016.  
Amsterdam Brain and Cognition Center, University of Amsterdam, The Netherlands.  
Advisor: Prof. Birte Forstmann.
- Postdoctoral Research Associate.** January 2013 – June 2014.  
School of Psychology, University of New South Wales, Australia.

Advisors: Prof. Brett Hayes, Prof. Ben Newell.

- Research Assistant.** 2011 – 2013.  
Newcastle Law School, University of Newcastle, Australia.  
Advisor: Prof. Ted Wright.
- Teaching Assistant.** 2006 – 2012.  
Development of teaching materials, casual lecturer, tutor and examination marker.  
School of Mathematical and Physical Sciences, University of Newcastle.  
School of Psychological Sciences, University of Newcastle, Australia.
- Research Assistant.** 2007 – 2008.  
Laboratory of Neuroimmunology, University of Newcastle, Australia.  
Advisor: Prof. Deborah Hodgson.

## Achievements and Awards

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- 2020.** William K. Estes Early Career Award. Society for Mathematical Psychology. Awarded annually for exceptional published research in the field of mathematical psychology by an early career researcher.
- 2018.** Fellow of the Psychonomic Society.
- 2017.** Australian Research Council Discovery Early Career Researcher Award.  
Vice-Chancellor’s Award for Early Career Research and Innovation Excellence, University of Newcastle.  
Faculty of Science Award for Early Career Research and Innovation Excellence, University of Newcastle.
- 2015.** Amsterdam Brain and Cognition Center funding to host a one-day symposium on model-based neuroscience of mind wandering.
- 2014.** Early Career Researcher Visiting Fellowship, University of Newcastle.
- 2013.** Psychonomic Society award for best paper published in *Behavior Research Methods*: “Gamelike features might not improve data”.
- 2012.** Society for Mathematical Psychology travel award, Columbus, OH.
- 2011.** Faculty Award for Outstanding Postgraduate (Research) Student Achievement, Faculty of Science, University of Newcastle.  
Research Higher Degree Conference Scholarship, University of Newcastle.
- 2010.** Society for Mathematical Psychology travel award, Portland, OR.  
Australasian Mathematical Psychology Conference student travel award.  
Best Platform Presentation CBMHR Postgraduate Conference, University of Newcastle.

- 2009.** Australian Postgraduate Award (~\$65,000 over 3 years).
- 2008.** Faculty Medal, Faculty of Science, University of Newcastle.  
Provisional University of Newcastle Postgraduate Research Scholarship, University of Newcastle.  
Deputy Vice-Chancellor (Research) Honours Scholarship, University of Newcastle.
- 2007.** Ivinskis Memorial Award, School of Psychological Sciences, University of Newcastle.

## Grants

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- 2021 – 2023.** Brown, S., Heathcote, A., **Hawkins, G.**, Eidels, A. *Quantitative psychological theories for a dynamic world.* Australian Research Council (ARC) Discovery Project. \$366,000.
- 2021 – 2023.** Todd, J., Auksztulewicz, R., Brown, S., Salisbury, D., & **Hawkins, G.** *Perceiving is believing: Perceptual inference anomalies in schizophrenia.* National Health and Medical Research Council (NHMRC) Ideas Grant. \$344,824.
- 2018 – 2020.** **Hawkins, G.**, Brown, S. *The value of time during decisions.* ARC Discovery Project. \$327,019.
- 2018 – 2019.** **Hawkins, G.**, Kalokerinos, E., Brown, S., Eidels, A. *Smart choices for smart Newcastle transportation.* Smart Moves Newcastle, NSW. \$67,316.
- 2017 – 2019.** **Hawkins, G.** *Cognitive models of mental architectures in consumer preference.* ARC Discovery Early Career Researcher Award (DECRA). \$365,000.
- 2017 – 2019.** Karayanidis, F., Forstmann, B., Steyvers, M., Jamadar, S., **Hawkins, G.**, Lenroot, R., Michie, P. *Modelling trajectories of cognitive control in adolescents and young adults.* ARC Discovery Project. \$492,500. [Hawkins withdrew from his role as Partner Investigator in the project.]
- 2017.** Forstmann, B. Matzke, D., Noppeney, U., Heathcote, A., Turner, B., de Hollander, G., & **Hawkins, G.** *Model-based cognitive neuroscience summer school.* [Summer School]. William K. and Katherine W. Estes Fund, on behalf of the Psychonomic Society & the Association for Psychological Science, USA. US\$15,000.
- 2016.** Heathcote, A., Brown, S. D., Turner, B., Matzke, D., **Hawkins, G.**, Bushmakin, M., & Howard, M. *Bayesian estimation of evidence accumulation architectures in neuroscience and cognition.* [Summer School]. William K. and Katherine W. Estes Fund, on behalf of the Psychonomic Society & the Association for Psychological Science, USA. ~US\$15,000.
- 2015.** Forstmann, B., van Maanen, L., Neumann, J., **Hawkins, G.**, & Ratcliff, R. *Model-based cognitive neuroscience.* [Summer School]. Volkswagenstiftung, Germany [Volkswagen Foundation]. € 14,600.

# Publications

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## Manuscripts Under Review or Revision

- [3] Sokratous, K., **Hawkins, G. E.**, Wurm, A. H., & Kvam, P. D. *Why am I always late? Modeling the cognitive mechanisms underlying anticipatory timing under uncertainty.*
- [2] **Hawkins, G. E.**, Mittner, M., Forstmann, B. U., & Heathcote, A. *Self-reported mind wandering reflects executive control and selective attention.*
- [1] Karayanidis, F., **Hawkins, G. E.**, Wong, A. S. W., Aziz, F., McKewen, M., & Steyvers, M. *Functional association between response caution and EEG measures of proactive control in task switching.*

## Peer Reviewed Journal Publications

- [50] Larson, J. S., & **Hawkins, G. E.** Speed-accuracy tradeoffs in decision making: Perception shifts and goal activation bias decision thresholds. *Journal of Experimental Psychology: Learning, Memory, and Cognition.*
- [49] Gunawan, D., **Hawkins, G. E.**, Kohn, R., Tran, M.-N., & Brown, S. D. (in press). Time-evolving psychological processes over repeated decisions. *Psychological Review.*
- [48] Dao, V.-H., Gunawan, D., Tran, M.-N., Kohn, R., **Hawkins, G. E.**, & Brown, S. D. (in press). Efficient selection between hierarchical cognitive models: Cross-validation with variational Bayes. *Psychological Methods.*
- [47] Greenaway, K., Kalokerinos, E. K., Hinton, S., & **Hawkins, G. E.** (in press). Emotion experience and expression goals shape emotion regulation strategy choice. *Emotion.*
- [46] Tran, M.-N., Scharth, M., Gunawan, D., Kohn, R., Brown, S. D., & **Hawkins, G. E.** (2021). Robustly estimating the marginal likelihood for cognitive models via importance sampling. *Behavior Research Methods*, 53, 1148–1165.
- [45] **Hawkins, G. E.**, & Heathcote, A. (2021). Racing against the clock: Evidence-based vs. time-based decisions. *Psychological Review*, 128, 222–263.
- [44] Wall, L., Gunawan, D., Brown, S. D., Tran, M.-N., Kohn, R., & **Hawkins, G. E.** (2021). Identifying relationships between cognitive processes across tasks, contexts, and time. *Behavior Research Methods*, 53, 78–95.
- [43] Katsimpokis, D., **Hawkins, G. E.**, & van Maanen, L. (2020). Not all speed-accuracy tradeoff manipulations have the same psychological effect. *Computational Brain & Behavior*, 3, 252–268.
- [42] Evans, N. J., **Hawkins, G. E.**, & Brown, S. D. (2020). The role of passing time in decision-making. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 46, 316–326.
- [41] Gunawan, D., **Hawkins, G. E.**, Tran, M.-N., Kohn, R., & Brown, S. D. (2020). New estimation approaches for the hierarchical Linear Ballistic Accumulator model. *Journal of Mathematical Psychology*, 96, 102368.

- [40] Boayue, N. M., Csifcsák, G., Aslaksen, P., Turi, Z., Antal, A., Groot, J., **Hawkins, G. E.**, ... & Mittner, M. (2020). Increasing propensity to mind wander by transcranial direct current stimulation: A registered report. *European Journal of Neuroscience*, *51*, 755–780.
- [39] Steyvers, M., **Hawkins, G. E.**, Karayanidis, F., & Brown, S. D. (2019). A large-scale analysis of task switching practice effects across the lifespan. *Proceedings of the National Academy of Sciences*, *116*, 17735–17740.
- [38] Chandrasekaran, C., & **Hawkins, G. E.** (2019). CHaRTr: An R toolbox for modeling choices and response times in decision-making tasks. *Journal of Neuroscience Methods*, *328*, 108432.
- [37] **Hawkins, G. E.**, Mittner, M., Forstmann, B. U., & Heathcote, A. (2019). Modeling distracted performance. *Cognitive Psychology*, *112*, 48–80.
- [36] Cooper, G. J., & **Hawkins, G. E.** (2019). Investigating consumer decision strategies with systems factorial technology. *Journal of Mathematical Psychology*, *92*, 102258.
- [35] Dutilh, G., Annis, J., Brown, S. D., Cassey, P., Evans, N. J., Grasman, R. P. P. P., **Hawkins, G. E.**, ... & Donkin, C. (2019). The quality of response time data inference: A blinded, collaborative assessment of the validity of cognitive models. *Psychonomic Bulletin & Review*, *26*, 1051–1069.
- [34] **Hawkins, G. E.**, Islam, T., & Marley, A. A. J. (2019). Like it or not, you are using one value representation. *Decision*, *6*, 237–260.
- [33] Turi, Z., Csifcsák, G., Boayue, N. M., Aslaksen, P., Antal, A., Groot, J., **Hawkins, G. E.**, ... & Mittner, M. (2019). Blinding is compromised for transcranial direct current stimulation at 1 mA for 20 minutes in young healthy adults. *European Journal of Neuroscience*, *50*, 3261–3268.
- [32] Evans, N. J., & **Hawkins, G. E.** (2019). When humans behave like monkeys: Feedback delays and extensive practice increase the efficiency of speeded decision making. *Cognition*, *184*, 11–18.
- [31] Csifcsák, G., Boayue, N. M., Aslaksen, P., Turi, Z., Antal, A., Groot, J., **Hawkins, G. E.**, ... & Mittner, M. (2019). Commentary: “Transcranial stimulation of the frontal lobes increases propensity of mind-wandering without changing meta-awareness” *Frontiers in Psychology*, *10*, 130.
- [30] Boehm, U., Annis, J., Frank, M. J., **Hawkins, G. E.**, Heathcote, A., Kellen, D., ... & Wagenmakers, E. -J. (2018). Estimating across-trial variability parameters of the diffusion decision model: Expert advice and recommendations. *Journal of Mathematical Psychology*, *87*, 46–75.
- [29] Quinn, R. K., James, M. H., **Hawkins, G. E.**, Brown, A. L., Heathcote, A., Smith, D. W., Cairns, M. J., & Dayas, C. V. (2018). Temporally specific miRNA expression patterns in the dorsal and ventral striatum of addiction-prone rats. *Addiction Biology*, *23*, 631–642.
- [28] Hayes, B. K., Ngo, J., **Hawkins, G. E.**, & Newell, B. R. (2018). Causal explanation improves judgment under uncertainty, but rarely in a Bayesian way. *Memory & Cognition*,

46, 112–131.

- [27] Evans, N. J., **Hawkins, G. E.**, Boehm, U., Wagenmakers, E. -J., & Brown, S. D. (2017). The computations that support simple decision-making: A comparison between the diffusion and urgency-gating models. *Scientific Reports*, 7, 16433.
- [26] Kary, A., **Hawkins, G. E.**, Hayes, B. K., & Newell, B. R. (2017). A Bayesian latent mixture model approach to assessing performance in stock-flow reasoning. *Judgment and Decision Making*, 12, 430–444.
- [25] Filmer, H. L., Varghese, E., **Hawkins, G. E.**, Mattingley, J. B., & Dux, P. E. (2017). Improvements in attention and decision-making following combined behavioural training and brain stimulation. *Cerebral Cortex*, 27, 3675–3682.
- [24] **Hawkins, G. E.**, Mittner, M., Forstmann, B. U., & Heathcote, A. (2017). On the efficiency of neurally-informed cognitive models to identify latent cognitive states. *Journal of Mathematical Psychology*, 76, 142–155.
- [23] **Hawkins, G. E.\***, Winkel, J.\*, Ivry, R. B., Brown, S. D., Cools, R., & Forstmann, B. U. (2016). Focal striatum lesions impair cautiousness in humans. *Cortex*, 85, 37–45. [\* equal contribution]
- [22] Marley, A. A. J., Islam, T., & **Hawkins, G. E.** (2016). A formal and empirical comparison of two score measures for best-worst scaling. *Journal of Choice Modelling*, 21, 15–24.
- [21] Mittner, M., **Hawkins, G. E.**, Boekel, W., & Forstmann, B. U. (2016). A neural model of mind wandering. *Trends in Cognitive Sciences*, 20, 570–578.
- [20] van Maanen, L., Fontanesi, L., **Hawkins, G. E.**, & Forstmann, B. U. (2016). Striatal activation reflects urgency in perceptual decision making. *NeuroImage*, 139, 294–303.
- [19] Boehm, U., **Hawkins, G. E.**, Brown, S., van Rijn, H., & Wagenmakers, E. -J. (2016). Of monkeys and men: Impatience in perceptual decision-making. *Psychonomic Bulletin & Review*, 23, 738–749.
- [18] Hayes, B. K., **Hawkins, G. E.**, & Newell, B. R. (2016). Consider the alternative: The effects of causal knowledge on representing and using alternative hypotheses in judgments under uncertainty. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 42, 723–739.
- [17] **Hawkins, G. E.**, Hayes, B. K., & Heit, E. (2016). A dynamic model of reasoning and memory. *Journal of Experimental Psychology: General*, 145, 155–180.
- [16] Cassey, P., **Hawkins, G. E.**, Donkin, C., & Brown, S. D. (2016). Using alien coins to test whether simple inference is Bayesian. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 42, 497–503.
- [15] **Hawkins, G. E.**, Mittner, M., Boekel, W., Heathcote, A., & Forstmann, B. U. (2015). Toward a model-based cognitive neuroscience of mind wandering. *Neuroscience*, 310, 290–305.
- [14] **Hawkins, G. E.**, Hayes, B. K., Donkin, C., Pasqualino, M., & Newell, B. R. (2015). A Bayesian latent mixture model analysis shows that informative samples reduce base rate neglect. *Decision*, 2, 306–318.

- [13] **Hawkins, G. E.**, Wagenmakers, E. -J., Ratcliff, R., & Brown, S. D. (2015). Discriminating evidence accumulation from urgency signals in speeded decision-making. *Journal of Neurophysiology*, *114*, 40–47.
- [12] **Hawkins, G. E.**, Forstmann, B. U., Wagenmakers, E. -J., Ratcliff, R. & Brown, S. D. (2015). Revisiting the evidence for collapsing boundaries and urgency signals in perceptual decision-making. *The Journal of Neuroscience*, *35*, 2476–2484.
- [11] Jones, L. G., **Hawkins, G. E.**, & Brown, S. D. (2015). Using best-worst scaling to improve psychological service delivery: An innovative tool for psychologists in organized care settings. *Psychological Services*, *12*, 20–27.
- [10] **Hawkins, G. E.** (2015). Friend or foe? Perceptual categorization across species. *The Journal of Neuroscience*, *35*, 871–872.
- [9] Hayes, B. K., **Hawkins, G. E.**, Newell, B. R., Pasqualino, M., & Rehder, B. (2014). The role of causal models in multiple judgments under uncertainty. *Cognition*, *133*, 611–620.
- [8] **Hawkins, G. E.**, Marley, A. A. J., Heathcote, A., Flynn, T. N., Louviere, J. J., & Brown, S. D. (2014). The best of times and the worst of times are interchangeable. *Decision*, *1*, 192–214.
- [7] **Hawkins, G. E.**, Marley, A. A. J., Heathcote, A., Flynn, T. N., Louviere, J. J., & Brown, S. D. (2014). Integrating cognitive process and descriptive models of attitudes and preferences. *Cognitive Science*, *38*, 701–735.
- [6] **Hawkins, G. E.**, Rae, B., Nesbitt, K. V., & Brown, S. D. (2013). Gamelike features might not improve data. *Behavior Research Methods*, *45*, 301–318.
- [5] **Hawkins, G.**, Brown, S. D., Steyvers, M., & Wagenmakers, E. -J. (2012). Context effects in multi-alternative decision making: Empirical data and a Bayesian model. *Cognitive Science*, *36*, 498–516.
- [4] Prince, M., **Hawkins, G.**, Love, J., & Heathcote, A. (2012). An R package for state-trace analysis. *Behavior Research Methods*, *44*, 644–655.
- [3] Walker, A. K., **Hawkins, G.**, Sominsky, L., & Hodgson, D. M. (2012). Transgenerational transmission of anxiety induced by neonatal exposure to lipopolysaccharide: Implications for male and female germ lines. *Psychoneuroendocrinology*, *37*, 1320–1335.
- [2] **Hawkins, G. E.**, Brown, S. D., Steyvers, M., & Wagenmakers, E. -J. (2012). An optimal adjustment procedure to minimize experiment time in decisions with multiple alternatives. *Psychonomic Bulletin & Review*, *19*, 339–348.
- [1] **Hawkins, G.**, Brown, S. D., Steyvers, M., & Wagenmakers, E. -J. (2012). Decision speed induces context effects in choice. *Experimental Psychology*, *59*, 206–215.

## Chapter in an Edited Book

- [1] **Hawkins, G. E.**, Cavanagh, J. F., Brown, S. D., & Steyvers, M. (forthcoming). Cognitive models as a tool to link decision behavior with EEG signals. In B. M. Turner & B. U. Forstmann (Eds.), *Model Based Cognitive Neuroscience*.

## Peer Reviewed Conference Proceedings

- [4] Hayes, B. K., **Hawkins, G. E.**, & Newell, B. R. (2015). Why do people fail to consider alternative hypotheses in judgments under uncertainty? In D. C. Noelle, R. Dale, A. S. Warlaumont, J. Yoshimi, T. Matlock, C. D. Jennings, & P. P. Maglio (Eds.), *Proceedings of the 37th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
- [3] **Hawkins, G. E.**, Camilleri, A. R., Heathcote, A., Newell, B. R., & Brown, S. D. (2014). Modeling probability knowledge and choice in decisions from experience. In P. Bello, M. Guarini, M. McShane, & B. Scassellati (Eds.), *Proceedings of the 36th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
- [2] Hayes, B. K., Newell, B. R., & **Hawkins, G. E.** (2013). Causal model and sampling approaches to reducing base rate neglect. In M. Knauff, M. Pauen, N. Sebanz, & I. Wachsmuth (Eds.), *Proceedings of the 35th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
- [1] **Hawkins, G.**, Prince, M., Brown, S., & Heathcote, A. (2010). Designing state-trace experiments to assess the number of latent psychological variables underlying binary choices. In S. Ohlsson & R. Catrambone (Eds.), *Proceedings of the 32nd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.

## Non-Traditional Research Outputs

**2020.** *pmwg: Particle Metropolis within Gibbs*. Cooper, G. J., Innes, R., Kuhne, C., Cavallo, J.-P., Gunawan, D., **Hawkins, G. E.**, & Brown, S. D. Software to implement the Particle Metropolis within Gibbs (PMwG) algorithm in the R programming environment, available at <https://CRAN.R-project.org/package=pmwg>. The algorithm was developed and published in reference [41].

## Technical Reports

**2020.** *Smart Choices for Smart Newcastle Transportation*. Insley-Blaszka, A., Kalokerinos, E., **Hawkins, G.**, Eidels, A., & Brown, S. Report produced as an outcome of the Smart Moves Newcastle initiative. Available at: <http://hdl.handle.net/1959.13/1414250>

## Presentations

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### Invited Talks

**2021.** Time impacts preferential choices. Choice Modelling Centre Seminar Series, University of Leeds, UK.

Time impacts decision processes in many ways. Estes Early Career Award Keynote.



Annual Meeting of the Society for Mathematical Psychology.

Time impacts how we make decisions. Melbourne School of Psychological Sciences Seminar Series, University of Melbourne, Australia.

The role of time in decision making. School of Psychological Sciences Seminar Series, University of Newcastle, Australia.

**2018.** Measuring attitudes and preferences. Jocelyn Wale Seminar Series, School of Psychology, James Cook University, Townsville, Australia.

Measuring preferences. Presented to the Respiratory Medicine Research Group, Hunter Medical Research Institute, Newcastle, Australia.

**2017.** Measuring attitudes and preferences. Presented separately to the Cognitive Research Group and the Health and Clinical Psychology Research Group, University of Newcastle, Australia.

**2016.** Speaker in the symposium “Cognitive modeling of memory and decision making”. 58<sup>th</sup> Conference of Experimental Psychologists, Heidelberg, Germany.

Speaker in “Mind wandering symposium”. University of Amsterdam, The Netherlands.

**2015.** Using cognitive models and neural data to understand mind wandering. Cognitive Neuroscience Research Group Colloquium, University of Tromsø, Norway.

Speaker in the symposium “Neural correlates of cognitive models”. International Conference on Cognitive Modeling, Groningen, The Netherlands.

Speaker and Chair, together with Leendert van Maanen, in the symposium “The neuroscience of perceptual decision-making”. Dutch Neuroscience Meeting, Lunteren, The Netherlands.

**2014.** Measuring attitudes and preferences. School of Psychology Colloquium, University of New South Wales, Australia.

## Platform Presentations

[30] **Hawkins, G. E.**, Eidels, A., & Brown, S. (2022). Preference stability across preference elicitation tools. Australasian Mathematical Psychology Conference. Virtual.

[29] Cavallaro, J.-P., Brown, S. D., & **Hawkins, G. E.** (2021). Time pressure impacts consumer preferences. Annual Meeting of the Psychonomic Society. Virtual [COVID-19 related travel restrictions].

[28] **Hawkins, G. E.**, Mittner, M., Forstmann, B. U., & Heathcote, A. (2021). Generative models of behaviour and self-report during mind wandering. Australasian Mathematical Psychology Conference, Newcastle, NSW, Australia

[27] **Hawkins, G. E.**, & Heathcote, A. (2020). The timed racing diffusion model of decision

making. Annual Meeting of the Society for Mathematical Psychology. Virtual [COVID-19 related travel restrictions].

- [26] **Hawkins, G. E.**, Gunawan, D., Tran, M.–N, Kohn, R., Steyvers, M., & Brown S. (2020). Latent class discovery for cognitive models. Australasian Mathematical Psychology Conference, Sydney, NSW, Australia
- [25] **Hawkins, G. E.**, & Heathcote, A. (2019). Racing against the clock: Reinterpreting evidence accumulation in speeded decision making. Annual Meeting of the Psychonomic Society, Montreal, Quebec, Canada.
- [24] **Hawkins, G. E.**, & Heathcote, A. (2019). The timed racing diffusion model. Annual Meeting of the Society for Mathematical Psychology, Montreal, Quebec, Canada.
- [23] **Hawkins, G. E.**, Gunawan, D., Tran, M.–N., Kohn, R., & Brown, S. D. (2019). Time-varying cognitive models of decision making. Australasian Mathematical Psychology Conference, Melbourne, VIC, Australia.
- [22] Cavallaro, J. -P., Innes, R., & **Hawkins, G. E.** (2018). Consumer choices under time pressure. Annual Meeting of the Psychonomic Society, New Orleans, LA, USA.
- [21] **Hawkins, G. E.**, Mittner, M., Heathcote, A., & Forstmann, B. U. (2018). Decision making as a rhythmic race. Annual Meeting of the Society for Mathematical Psychology, Madison, WI, USA.
- [20] Evans, N. J., & **Hawkins, G. E.** (2018). Experimental design can induce apparent cross-species differences in decision-making strategy. Australasian Experimental Psychology Conference, Hobart, Tasmania, Australia.
- [19] **Hawkins, G. E.**, Evans, N. J., & Brown, S. D. (2018). Normative theories are nice, but people aren't always normative: Comparing collapsing and fixed threshold models of speeded decision making. Australasian Mathematical Psychology Conference, Perth, WA, Australia.
- [18] **Hawkins, G. E.**, Mittner, M., Heathcote, A., & Forstmann, B. U. (2017). Cognitive models of distracted performance and strange data. Annual Meeting of the Psychonomic Society, Vancouver, BC, Canada.
- [17] **Hawkins, G. E.**, Islam, T., & Marley, A. A. J. (2017). A unidimensional representation of value drives preferences for most- and least-favored options. Annual Meeting of the Society for Mathematical Psychology, Coventry, UK.
- [16] **Hawkins, G. E.**, van Maanen, L., Fontanesi, L., & Forstmann, B. U. (2017). Decision urgency in behaviour and brain. Australasian Experimental Psychology Conference, Shoal Bay, NSW, Australia.
- [15] **Hawkins, G. E.**, Mittner, M., Heathcote, A., & Forstmann, B. U. (2017). Cognitive models of distracted task performance. Australasian Mathematical Psychology Conference, Brisbane, QLD, Australia.
- [14] **Hawkins, G. E.**, Mittner, M., Matzke, D., Boekel, W., Forstmann, B. U., & Heathcote, A. (2016). Response inhibition in sleep deprivation: Failing to stop or failing to start? Annual Meeting of the Society for Mathematical Psychology, New Brunswick, NJ, USA.
- [13] **Hawkins, G. E.**, Mittner, M., Boekel, W., Heathcote, A., & Forstmann, B. U. (2016). Al-

pha oscillations predict task-unrelated thoughts and reductions in processing efficiency. International Meeting of the Psychonomic Society, Granada, Spain.

- [12] **Hawkins, G. E.**, Mittner, M., Boekel, W., Heathcote, A., & Forstmann, B. U. (2015). Modeling the wandering mind: Informing sequential sampling models with neural data. Annual Meeting of the Society for Mathematical Psychology, Newport Beach, CA, USA.
- [11] **Hawkins, G.**, Hayes, B., Donkin, C., & Newell, B. (2014). Reducing base rate neglect with informative samples. Australasian Experimental Psychology Conference, Brisbane, QLD, Australia.
- [10] **Hawkins, G. E.**, Hayes, B. K., & Heit, E. (2014). Using similarity ratings to analyse and model memory and reasoning performance. Australasian Mathematical Psychology Conference, Canberra, ACT, Australia.
- [9] **Hawkins, G. E.**, Hayes, B. K., & Newell, B. R. (2013). Causal models and experience-based sampling reduce base rate neglect. Australasian Experimental Psychology Conference, Adelaide, SA, Australia.
- [8] **Hawkins, G. E.**, Forstmann, B. U., Wagenmakers, E. -J., Ratcliff, R., & Brown, S. D. (2013). Evidence for and against collapsing decision boundaries. Australasian Mathematical Psychology Conference, Sydney, NSW, Australia.
- [7] **Hawkins, G. E.**, Brown, S. D., Marley, A. A. J., Heathcote, A., Flynn, T. N., & Louviere, J. J. (2012). Accumulator models for consumer preference and response times. Annual Meeting of the Society for Mathematical Psychology, Columbus, OH, USA.
- [6] **Hawkins, G. E.**, Brown, S. D., Marley, A. A. J., Heathcote, A., & Louviere, J. (2012). Accumulator models for best-worst choices. Australasian Mathematical Psychology Conference, Adelaide, SA, Australia. [presented by Heathcote]
- [5] **Hawkins, G.**, Brown, S., Steyvers, M., & Wagenmakers, E. -J. (2011). Modeling context effects in decisions between multiple alternatives. Australasian Mathematical Psychology Conference, Melbourne, VIC, Australia.
- [4] **Hawkins, G.**, Brown, S., & Nesbitt, K. V. (2010). Games aren't fun. Well, they don't change how you perform, anyway. Centre for Brain & Mental Health Research Postgraduate and Postdoctoral Conference, Newcastle, NSW, Australia.
- [3] **Hawkins, G.**, Brown, S., Steyvers, M., & Wagenmakers, E. -J. (2010). A particle filter account of multi-alternative decisions. Annual Meeting of the Society for Mathematical Psychology, Portland, OR, USA.
- [2] **Hawkins, G.**, Brown, S., Steyvers, M., & Wagenmakers, E. -J. (2010). Hick's Law: How high can it go? Australasian Experimental Psychology Conference, Melbourne, VIC, Australia.
- [1] **Hawkins, G.**, Dodds, P., Camilleri, A., Brown, S., & Newell, B. (2010). A particle filter account for the estimation of probability. Australasian Mathematical Psychology Conference, Margaret River, WA, Australia.

## Poster Presentations

- [6] **Hawkins, G. E.**, Mittner, M., Heathcote, A., & Forstmann, B. U. (2015). Matter over mind (wandering): Electrophysiological predictors of task-unrelated decrements in performance. Annual Meeting of the Society for Neuroscience, Chicago, IL, USA.
- [5] **Hawkins, G. E.**, Hayes, B. K., & Newell, B. R. (2013). Positive (and negative) effects of experience-based sampling and causal framing on intuitive statistical judgments. Annual Meeting of the Society for Judgment and Decision Making, Toronto, ON, Canada.
- [4] **Hawkins, G. E.**, Hayes, B. K., & Heit, E. (2013). An exemplar-based sequential sampling model of choice and response time in memory and reasoning. Annual Meeting of the Psychonomic Society, Toronto, ON, Canada.
- [3] **Hawkins, G. E.**, Forstmann, B. U., Wagenmakers, E. -J., & Brown, S. D. (2012). On the difference between monkeys' and humans' response times: Could it be the experimental procedure? Annual Meeting of the Psychonomic Society, Minneapolis, MN, USA.
- [2] **Hawkins, G. E.**, Rae, B., Nesbitt, K. V., & Brown, S. D. (2012). To game or not to game, perhaps there is no question: Game-like features might not improve data. Australasian Experimental Psychology Conference, Sydney, NSW, Australia.
- [1] **Hawkins, G.**, Brown S. D., Steyvers, M. & Wagenmakers, E. -J. (2011). Leave the experiment as quickly as possible, without looking stupid: An optimal adjustment procedure to explain context effects in multi-alternative choice. Annual Meeting of the Psychonomic Society, Seattle, WA, USA.

## Professional Experience

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### Supervision – PhD

#### *Commencing 2022.*

Augustine Nguyen, Primary supervisor.

Luis Arango Soler, Co-supervisor.

Jonathon Love, Co-supervisor.

#### *Commenced.*

**2022–present.** Laiton Hedley, Co-supervisor.

**2022–present.** Amelia Rofe, Co-supervisor.

**2021–present.** Jessica Grimmond, Primary supervisor.

**2021–present.** Nathan Tran, Co-supervisor.

**2019–present.** Tom Narraway, Primary supervisor.

**2018–present.** Gavin Cooper, Primary supervisor.

**2018–present.** Jon-Paul Cavallaro, Primary supervisor.

### Supervision – Honours

- 2022.** Claire Bates, Bianca Jansson.
- 2021.** Katherine Drosd, Adele Ghabrial, Noni O’Dea, Vicky Sarris, Kate Wawn.
- 2020.** Mikaylee Baldwin, Kezia Beale, Jessica Grimmond, Taylor Kirkwood.
- 2019.** Jake Asara, Taylah Browne, Daniel Myles.
- 2018.** Raine (Pei Yi) Chiam, Keelin Garry.
- 2017.** Kurt Lancaster, Nicholas Marriott, Kellie Snelson.

## **Supervision – Other**

- 2019.** Postdoctoral advisor to Dr Rob Taylor.
- 2016.** Co-assessor to Dimitris Katsimpokis (Master), Wikke van der Putten (Master), University of Amsterdam.
- 2015.** Supervisor to Jacqueline Zadelaar (Master), Wibout van Woerkom (Bachelor), Co-assessor to Suzanna van Baardewijk (Master), University of Amsterdam.

## **Teaching**

- 2022.** Program Convenor of the Bachelor of Psychological Science (Honours) at the University of Newcastle. Annual intake of approximately 100 honours students in psychology.  
Course Coordinator: Psychology Graded Honours Thesis (B Psych Science Honours, 4<sup>th</sup> year).
- 2021.** Course Coordinator: Advanced Methodology (B Psych Science Honours, 4<sup>th</sup> year).  
Course Co-Coordinator: Psychology Graded Honours Thesis (B Psych Science Honours, 4<sup>th</sup> year).
- 2017.** Guest Lecturer: Advanced Research Methods and Statistics in Psychology (B Psych Science, 3<sup>rd</sup> Year).
- 2015 – 2016.** Guest Lecturer: Mind-Blowing Humanities: Arts, Reasoning, and Computations (Research Master course), University of Amsterdam.
- 2014 – 2015.** Lecturer: Introduction to Neuroscientific Methods and Brain Anatomy (Research Master course), University of Amsterdam.
- 2009 – 2012.** Casual lecturer, tutor and lab demonstrator for undergraduate courses in the School of Mathematical and Physical Sciences and School of Psychological Sciences, University of Newcastle:
  - Advanced Research Methods and Statistics in Psychology
  - Applied Statistics and Research Methods (Specialist Science Course, 2<sup>nd</sup> Year)
  - Statistics for the Sciences (Generalist Science Course, 1<sup>st</sup> Year)
  - Introduction to Psychology I (B Psych Science, 1<sup>st</sup> Year)

**2008 – 2012.** Undergraduate examination marking, School of Psychological Sciences, University of Newcastle:

Advanced Research Methods and Statistics in Psychology  
Foundations of Psychology for Health Professionals (Allied Health Programs, 2<sup>nd</sup> Year)

**2006.** Course Development, School of Psychological Sciences, University of Newcastle:

Advanced Cognitive Psychology (B Psych Science, 3<sup>rd</sup> Year)

## Workshops and Conferences

**2021.** Conference Chair and Lead Organiser for the Australasian Mathematical Psychology Conference, Newcastle, NSW. Hybrid in-person and online format with 35 in-person delegates and 93 online attendees from across Australia and USA, Europe, UK, and Asia. The archived conference materials and pre-recorded presentations are available at: [mathpsych.org](http://mathpsych.org).

**2017–2019.** As a member of the Early Career Researcher Committee of the Priority Research Centre for Brain and Mental Health Research (PRCBMHR), organised and conducted the PRCBMHR Annual Postgraduate Conference. Hunter Medical Research Institute, Newcastle, NSW.

**2016.** Together with Birte Forstmann and Gilles de Hollander, conducted two-day workshop “Introduction to model-based neuroscience of decision-making”. Université Libre de Bruxelles, Belgium.

Together with Birte Forstmann and Leendert van Maanen, conducted five-day workshop “Model-Based Neuroscience Summer School”. Introduction to cognitive modeling using diffusion and accumulator models and simple neuroscience methods. University of Amsterdam, The Netherlands.

Together with Birte Forstmann, conducted one-day meeting “Mind Wandering Symposium”. University of Amsterdam, The Netherlands.

**2015.** Conducted workshop “Using sequential sampling models to fit behaviour”, presented as part of a five-day Summer school on “Neurocomputational Approaches to Decision Making: From Perception to Social Cognition”. Practical introduction to the study of decision-making using diffusion and accumulator models. Donders Institute for Brain, Cognition and Behaviour, Radboud University, The Netherlands.

Together with Birte Forstmann, Leendert van Maanen and Jane Neumann, conducted five-day workshop “Model-Based Neuroscience Summer School”. Introduction to cognitive modeling using diffusion and accumulator models and simple neuroscience methods. University of Amsterdam, The Netherlands.

**2014.** Together with Scott Brown, Andrew Heathcote, Peter Cassey and Don van Ravenzwaaij, conducted three-day workshop “Linear Ballistic Accumulator Summer School”. In-

Introduction to modelling response time data with the LBA model. University of Newcastle, Australia

Together with Chris Donkin and Don van Ravenzwaaij, organised and conducted the one-day workshop “Bayesian workshop on MCMC sampling and parameter estimation”. Introduction to Bayesian parameter estimation in WinBUGS and JAGS for faculty and graduate students. University of New South Wales, Australia.

**2013.** “A primer in R”. Introduction to the R statistical environment for graduate students. University of New South Wales, Australia.

## Reviewing Activity

Consulting Editor: *Behavior Research Methods*.

Ad hoc reviewer for over 30 international journals, including: *Behavior Research Methods*, *Biological Psychology*, *Brain & Cognition*, *Brain Research*, *British Journal of Mathematical and Statistical Psychology*, *Cerebral Cortex*, *Cognition*, *Cognitive Psychology*, *Cognitive Research: Principles and Implications*, *Computational Brain & Behavior*, *Consciousness and Cognition*, *Decision*, *Emotion*, *Food Quality and Preference*, *Journal of Cognitive Enhancement*, *Journal of Cognitive Neuroscience*, *Journal of Cognitive Psychology*, *Journal of Experimental Psychology: Applied*, *Journal of Experimental Psychology: General*, *Journal of Experimental Psychology: Human Perception & Performance*, *Journal of Experimental Psychology: Learning, Memory, & Cognition*, *Journal of Neuroscience*, *Memory & Cognition*, *PLoS Computational Biology*, *PLoS One*, *Psychonomic Bulletin & Review*, *Quarterly Journal of Experimental Psychology*, *Scientific Reports*, *Transportmetrica A: Transport Science*, *The Quantitative Methods for Psychology*, *Wiley Interdisciplinary Reviews: Cognitive Science*, *Academic Press/Elsevier Acquisitions*, and *Annual Meeting of the Cognitive Science Society*.

Ad hoc reviewer for funding bodies, including: *Australian Research Council*, *National Science Foundation (USA)*, *Dutch Research Council (NWO)*, and *Swiss National Science Foundation*.

## Committee Activity

**2019–present.** Chair, Early Career Researcher Committee, School of Psychological Sciences.

**2019–present.** Chair, Honours Methods Consulting Team, School of Psychological Sciences.

**2019–2020.** Faculty of Science Committee for Equity, Diversity and Inclusion.

**2019–2020.** Member, Cloud Migration Project Senior User Reference Group.

**2019–2020.** Member, Student Feedback on Courses/Teaching Working Group.

**2018.** Confirmation Committee for Higher Degree by Research candidates at University of Newcastle: Stephen Pickard (Chair), Caroline Kuhne (Chair), Ashlea Rendell.

**2017–2019.** Member of the Early Career Researcher Committee of the Priority Research

Centre for Brain and Mental Health, University of Newcastle.

**2017–2019.** Seminar Coordinator, Cognitive Psychology Research Group, University of Newcastle.

## **Outreach and Community Engagement**

**2019.** Co-organised public forum on *Mental health research*, presented by Prof Frances Kay-Lambkin and Dr Sally Hunt (University of Newcastle), HMRI, 20 November.

**2018.** *Why do people rush when making decisions?* Newcastle Herald, 17 September, <https://www.newcastleherald.com.au/story/5610361/the-balancing-act-of-making-decisions>

PRC BMHR information and activity outreach, HMRI Open Day, 12 October.

**2017.** Co-organised public forum on *Intuitively (Ir)rational? A user's guide to the science of the mind*, presented by Prof Ben Newell (UNSW Australia), NeW Space, 31 August.

Co-organised public forum on *Optimism in youth mental health*, presented by Prof Eóin Killackey (Orygen, University of Melbourne) and Prof Patrick McGorry (AO, Orygen), HMRI, 21 November. Also featured in the Newcastle Herald, <https://www.theherald.com.au/story/5069898/forum-puts-spotlight-on-youth-mental-health/>.

## **Memberships**

Fellow of the Psychonomic Society

Member of the Society for Mathematical Psychology