

Mark Daniel Miller

✉ markmillerresearch@gmail.com; 🌐 markdmiller.live; 🐦 @PredictiveLife

PROFILE

I am currently the senior research fellow Monash University's Centre for Consciousness and Contemplative Studies (Australia), and a visiting researcher at Hokkaido University's Centre for Human Nature, Artificial Intelligence and Neuroscience.

As a philosopher of cognition, I apply the tools of conceptual analysis and theoretical model building to help answer fundamental questions about human cognition — about the way that human beings think. Over the past few years my research has investigated the implications of a leading new perspective on cognition, which conceptualizes the mind as an engine of knowledge-driven predictions (i.e., *Predictive Processing*, or *Active Inference*). I have worked to integrate this framework with core ideas from 4E cognitive science, which emphasizes the role of embodied processes in cognition and consciousness. Most recently, I have begun to explore how these same developments in computational neuroscience may help us gain a clearer understanding the nature of human happiness and well-being, and the impact that our increasingly technologically-mediated world has on our flourishing.

PhD in Philosophy awarded in 2018,

Areas of Specialism: Philosophy of Mind, Philosophy of Cognitive Science, Philosophy of Psychology, Philosophy of Psychiatry, Phenomenology, Philosophy and Ethics of Technology and Artificial Intelligence

Areas of Competence: Philosophy of Science, Neuroethics.

EDUCATION

PhD Philosophy **2014–2018**

Degree awarded by University of Edinburgh (with No Corrections)

Thesis Title: *Entangled Predictive Brain: Prediction, Emotion and Embodied Cognition* (<https://era.ed.ac.uk/handle/1842/33218>)

Examination Committee: Professor Shaun Gallagher (University of Memphis), Professor Dave Ward (University of Edinburgh) & Professor Tillman Virkant (University of Edinburgh).

MSc Mind, Language and Embodied Cognition **2010–2011**

Degree awarded by University of Edinburgh (with First Class Honours)

BA (Honours) Philosophy & English Literature

2003–2009

Degree awarded by University of Toronto (3.91 GPA).

ACADEMIC POSITIONS

Centre for Consciousness and Contemplative Studies, Monash University, Australia

Senior Research Fellow (June 2022-Present)

Center for Human Nature, Artificial Intelligence and Neuroscience, Hokkaido University, Japan

Assistant Professor (March 2021-April 2022); Visiting Researcher (April 2022-April 2023)

Ethical Intelligence

Consultant on Ethics of Artificial Intelligence (July 2021-present)

Department of Informatics, University of Sussex, UK

Postdoctoral Researcher on Andy Clark's 4-year European Research Council Project Expecting Ourselves: Embodied Prediction and the Construction of Consciousness Experience (May 2019–April 2021)

Department of Philosophy, Psychology and Language Sciences, University of Edinburgh, UK

Postdoctoral Researcher on Andy Clark's 4-year European Research Council Project Expecting Ourselves: Embodied Prediction and the Construction of Consciousness Experience (September 2018–May 2019)

Department of Philosophy, Psychology and Language Sciences, University of Edinburgh, UK

*Social Media Coordinator for the MOOC *Philosophy, Science and Religion**

PUBLICATIONS

Articles

- Andersen, M. M., Kiverstein, J., **Miller, M.**, & Roepstorff, A. (2022). Play in Predictive Minds: A Cognitive Theory of Play. *Psychological Review*.
- Deterding, S., Andersen, M. M., Kiverstein, J., & **Miller, M.** (2022). Mastering Uncertainty: A Predictive Processing Account of Enjoying Uncertain Success in Video Game Play. *Frontiers in Psychology*, 4214.
- White, B., & **Miller, M.** (2021, September). Filtered States: Active Inference, Social Media and Mental Health. In *Joint European Conference on Machine Learning and Knowledge Discovery in Databases* (pp. 772-783). Springer, Cham.

- Nave, K., Deane, G., **Miller, M.**, & Clark, A. (2022). Expecting some action: Predictive Processing and the construction of conscious experience. *Review of Philosophy and Psychology*, 1-19.
- **Miller, M.**, Rietveld, E., & Kiverstein, J. (2021). The Predictive Dynamics of Happiness and Well-Being. *Emotion Review*, 17540739211063851.
- Schoeller, F., **Miller, M.**, Salomon, R., & Friston, K. J. (2021) Trust as Extended Control: Human-Machine Interactions as Active Inference. *Frontiers in Systems Neuroscience*, 93.
- **Miller, M.** & White, B. (2021) The Warped Self: Social media makes us feel terrible about who we really are. Neuroscience explains why – and empowers us to fight back. In *AEON Magazine*, <https://aeon.co/essays/social-media-and-the-neuroscience-of-predictive-processing>.
- **Miller, M.**, Nave, K., Deane, G. & Clark, A. (2020) The Value of Uncertainty. In *AEON Magazine*, https://aeon.co/essays/use-uncertainty-to-leverage-the-power-of-your-predictive-brain?utm_medium=feed&utm_source=rss-feed.
- **Miller, M.**, Deane, G. & Wilkinson, S. (2020) Losing Ourselves: Active Inference, Depersonalization and Meditation. *Frontiers of Psychology*,
- **Miller, M.**, Clark, A., Deane, G. & Nave, K. (2020). Wilding the Predictive Brain: Embodied, Emotional and Extended. *Wiley Interdisciplinary Reviews: Cognitive Science*.
- Kiverstein, J., **Miller M.** & Rietveld E. (2020). Mood as Tuning Predictions: A Neurophenomenological Perspective on Depression. *Neuroscience of Consciousness*.
- **Miller, M.**, Kiverstein, J., & Rietveld, E. (2020). Embodying addiction: A predictive processing account. *Brain and Cognition*, 138, 105495.
- **Miller, M.**, & Nave, K. (2020). Slimes and Cyborgs: Stretching the Boundaries of Life. *Adaptive Behavior*, 28(1), 43-44.
- Kiverstein, J., **Miller, M.** & Rietveld, E. (2017). The Feeling of Grip: Error Dynamics, Novelty and the Predictive Brain. *Synthese*, 1-23.
- **Miller, M.**, & Clark, A. (2017). Happily Entangled: Prediction, Emotion, and the Embodied Mind. *Synthese*, 1-17.
- Kiverstein, J., & **Miller, M.** (2015). The Embodied Brain: Towards a Radical Embodied Cognitive Neuroscience. *Frontiers in Human Neuroscience*, 9, 237.
- Kiverstein, J., & **Miller, M.** (2015). The Cognitive-Emotional Brain is an Embodied and Social Brain. Commentary on Luiz Pessoa. *Behavioural and Brain Sciences* 38: 26-7.

Book Chapters / Reviews

- **Miller, M.**, Anderson, M., Schoeller, F. & Kiverstein, J. (forthcoming) Getting a Kick Out of Film: Aesthetic Pleasure and Play in Prediction Error Minimizing Agents. In *Worlding the Brain*. Edited by S. Besser & F. Lysen. Brill Publishers.
- Ramstead, M., Weise, W., **Miller, M.**, Friston, K. (forthcoming) Deep Neurophenomenology: An Active Inference Account of Some Features of Conscious Experience and of their Disturbance in Major Depressive Disorder. In *Expected Experiences: The Predictive Mind in an Uncertain World*. Edited by Cheng, T., Sato, R. & Hohwy, J. Routledge.
- **Miller, M.** & Markovic, J. (forthcoming). Predicting Emotions: Emotion-Cognition Interactions in the Predictive Brain. In Mendonça, D., Curado, M., & Gouveia, S. S. (Eds.) *The philosophy and science of predictive processing*. Bloomsbury Publishing.

- **Miller, M.** (2013). Book Review: of *Self, No Self? Perspectives from Analytical, Phenomenological, and Indian Traditions*, edited by Mark Siderits, Evan Thompson and Dan Zahavi, Oxford University Press 2011. *Journal of Consciousness Studies*.

Edited Collections

- Phenomenal Expectations: New Essays on Predictive Processing and Consciousness (forthcoming). (Eds) **Miller, M.**, Schlicht, T. & Clark, A. *Review for Philosophy and Psychology*.
- Experiencing Wellness: Predictive Processing Approach to Mental Health and Well-Being (in preparation). (Eds) **Miller, M.**, Kiverstein, J. & Hipolito, I. Special Issue in *Neuroscience of Consciousness*.

Under Review/Drafts

- Kiverstein, J., **Miller, M.** & Rietveld, E. (in review, *Australian Journal of Philosophy*). Desire in the Predictive Organism.
- Anderson, B., **Miller, M.** and Verveke, J. (in review, *Phenomenology and the Cognitive Sciences*) Predictive Processing and Relevance Realization Have Convergent Solutions to the Frame Problem.
- Schoeller, F., Ashur, P. Larralde, J., Couedic, C., Ciaunica, A., Linson, A. & **Miller, M.** (in preparation) Auditory Feedback on Proprioception Increases Bodily Awareness.
- **Miller, M.**, White B, Demakes, D, Ciria, A. & Lara, B. (in preparation) Third-Wave Artificial Empathy: an Active Inference Approach to Affective Computing.
- Sandved-Smith, L., **Miller, M.** & Lutz, A. (in preparation) Meditative Self-Inquiry as a Model Optimization Strategy: An Active Inference Perspective.
- Schoeller, F., Pezzulo, G., Horowitz, A., Jain, A., Maes, P., Allen, M., **Miller, M.**, Friston, K. (In preparation). Artificial Sensations: Interoception, Technology, and Psychopathology.

TALKS

- *Third-Wave Artificial Empathy: an Active Inference Approach to Affective Computing*. International Conference on Embodied Cognitive Science. August 19 2022.
- *Predictive Dynamics of Curiosity and Playfulness*. Cabinets of Curiosities Conference, Diverse Intelligence Institute (DISI) at Collegium Helveticum. Zürich, Switzerland, March 31 2022.
- *Neuroaesthetics of Horror Films*. University of Toronto Cognitive Science and Artificial Intelligence Student Association. March 28 2022.
- *Active Inference, Emotion and New Robotics*. Honda Research Institute. March 17 2022.
- *Neuroaesthetics of Horror Films*. The Scottish Aesthetics Forum, University of St Andrews. March 1 2022.
- *Exploring the Predictive Dynamics of Happiness and Well-Being*. University of Toronto Cognitive Science and Artificial Intelligence Student Association. February 18 2022.

- *On the Predictive Dynamics of Happiness and Well-Being*. The Free Energy Principle: Science, Tech and Philosophy. February 17 2022.
- *Artificial Empathy: Active Inference and a New Collective Intelligence*. Co-presented with Ben White, at Cognition2021. October 15-17 2021.
- *Filtered Lives: Active Inference, Social Media and Mental Health*. Second International Workshop on Active Inference. September 13th.
- *The Good, the Bad and the Ugly of Horror*. When Fear is Fun, First Annual Aarhus Workshop on Recreational Fear. August 26 2021.
- *The Warped Self: Active Inference, Social Media and Mental Health*. Center for Human Nature, Artificial Intelligence and Neuroscience Seminar Series, Hokkaido University, Japan. July 15 2021.
- *Filtered States: Active Inference, Social Media and Mental Health*. Cognitalks Summer Edition. University of Amsterdam. June 7 2021.
- *Getting a Kick Out of Film: Aesthetic Pleasure and Play in Prediction Error Minimizing Agents*. European Philosophical Society for the Study of Emotions June 10-12 2021..
- *The Joy of Horror Films: Active Inference, Aesthetic Pleasure and the Paradox of Horror*. Art and Affect in the Predictive Mind Conference. <https://sites.google.com/view/artandaffectinpp/about?authuser=0>. Online June 30-July 2 2021.
- *Active Inference and the Paradox of Horror*. Prediction and Emotion Conference. <https://emotionprediction.wixsite.com/workshop>. March 31-April 2021.
- *Predictive Minds in a Socio-Technological Niche*; Keynote at WASP-HS Winter Conference, Lund, Sweden. February 9-11 2021.
- *Curiosity in an Ecological-Enactive Predictive Organism*. Learning, Breaking, Making: Analysing Processes of Play, Second International PLAYTRACK Conference, Aarhus University, Denmark. 2021.
- *Why Neuroscience Needs Philosophy*. Corpus Curiosum: Stimulating Critical Thinking in Neuroscience. Online June 23 2020. <https://corpuscuriosum.com/#pastseries>.
- *Why Neuroscience Needs Philosophy*. July 16th Colloquium Lecture of Cognitive Science, Tübingen University. Online July 16.
- *Losing Ourselves: Active Inference, Depersonalization and Enlightenment*. Plenary talk at the Science of Consciousness conference Nov 9 2020. https://www.youtube.com/watch?v=ojzKvU8G0x0&feature=emb_logo
- *Rewilding the Predictive Brain: Embodied, Emotional and Extended*. York University Neurology Group, Jan 16 2020.
- *Rewilding the Predictive Brain: Embodied, Emotional and Extended*. University of Toronto Cognitive Science and Artificial Intelligence Student Association, Jan 10 2020.
- *Hitting the Slopes: Temporal Error Dynamics and the Surprise-Loving Predictive Organism*. Keynote at Timescales of Life and Mind Conference. University of Edinburgh, Nov 4-6 2019.
- *Mood as Predicting Momentum*. Symposium title: Losing Our Grip: Psychopathology and Embodied Predictive Processing, with Julian Kiverstein, Jelle Bruineberg and Regina Fabry. European Conference on Cognitive Science. Bochum, DE. Sept 2-4 2019. Edinburgh UK. Jan 23 2019.
- *The Gripless Grip: A Predictive Processing Account of Buddhist Awakening*, *Pint of Science*, Edinburgh, UK. May 21 2019.

- *Embodying Addiction: A Predictive Processing Account*, keynote at Beyond the Brain: Academic Conference at the University of Edinburgh on Reconceptualizing Mental Disorders, University of Edinburgh, UK. May 9-10 2019.
- *Still Happily Entangled: Prediction, Emotion and Embodied Cognition* Philosophy, Psychology and Informatics Group Seminar Series, University of Edinburgh UK. Jan 23 2019.
- *Feelings Gone Wild*. 2nd Annual X-Spect Workshop, University of Edinburgh. Nov 02 2018.
- *Fleshing Out Visual Consciousness: Philosophy, Neuropsychology and the Two- Visual Systems*. Philosophy of Mind, Language, and Cognitive Science Graduate Conference. Western University, Canada. May, 14-16th 2018
- *Predictive Coding and the Bodily Self*. 25th Annual University of Waterloo Philosophy Graduate Student Association Conference. Waterloo, Canada. March, 8th 2018
- *The Neuroscience of Human Perception and the Image of Self*. University of Edinburgh Psychedelic Society. Edinburgh, UK. April, 5th 2017. Wisdom and Compassion in the Predictive Brain.
- *Compassion and Wisdom in the Predictive Brain. A Patient's Tale: compassion in our NHS?* Global Compassion Initiative, Royal College of Physicians. Edinburgh UK. March, 13 2017.
- *The Puzzle of Curiosity: Why Would a Prediction Error Minimizing Brain Move Agents to Seek Out Novelty?* Presented with Julian Kiverstein at Worliding the Brain: Predictive Processing as an Interdisciplinary Concept. University of Amsterdam, NL. November, 16 2016.
- *Embodying the Brain*. 4th Global Experts Meeting on Neuropharmacology. San Antonio, USA. September, 15-17 2016.
- *Predictive Brains and Compassionate Hearts*. TEDx Compassion and Courage Salon. Edinburgh, UK. June, 28 2016.
- *Predictive Emotions, Emotional Predicting*. The Second Annual Conference of the European Philosophical Society for the Study of Emotions. Edinburgh, UK. July, 15-17 2015.
- *Is the Brain a Prediction Machine?* International Society for the History, Philosophy, and Social Studies of Biology Meeting. Montreal, CA. July, 5-10 2015.
- *Affective Realism: The Light and Dark Side of Seeing-With-Feeling*. The World as We Feel It - Talking About Emotions Across the Disciplines Lecture Series. University of Edinburgh, UK. April, 28 2015.
- *The Embodied Brain*. The Second Symposium on Embodied Cognition and Performance at The Society for the Study of Artificial Intelligence and Simulation of Behaviour Conference. Kent, UK. April, 22 2015.
- *Is Empathy (Radically) Embodied?* Cognition of Self and Other: Perceptual and Social Processes. University of Stirling Psychology Symposium, UK. November, 13 2014.

Conferences & Workshops Organized

- *Coffee, Tea and Computational Wellbeing*. Monthly seminar series. July 2022-Present.
- *Spotlight on Robotics*. 2nd Applied Active Inference Symposium. July 31 2022.
- *Emotion and Prediction Conference*. Organized with Jose Araya, Pablo Fernandez & Slawa Loev. (University of Chile). <https://emotionprediction.wixsite.com/workshop>. Online March 31-April 1 2021.
- *All Things Predictive*. Expecting Ourselves International Conference, Online. November 4-6 2020.

- *Wilding the Predictive Brain: Prediction, Culture and Context*. 3rd Annual Expecting Ourselves Workshop, University of Sussex UK. November 1 2019.
- *Innovative Minds: Prediction, Embodiment and Consciousness*. Six-week online course June-July 2019.
- *Beyond the Brain: Academic Conference at the University of Edinburgh Reconceptualizing Mental Disorder*, University of Edinburgh, UK, May 9-10 2019.
- *State of the Art (and Just Beyond)*. 2nd Annual Expecting Ourselves Workshop, University of Edinburgh UK. November 10 2018.
- *Embodied Mind, Embodied Design*. University of Edinburgh, November 9 2015.
- *The Mindful Brain: Meditation and Cognitive Science*. Eight-week course, University of Edinburgh's Student Association, October 20 2015.

INTERNATIONAL RESEARCH NETWORK & COLLABORATIONS

Pioneering "Artificial Subject Studies" (April 2022-present)

I am a co-Principle Investigator on a new Toyota Foundation Granted Project *Pioneering "Artificial Subject Studies": A New Framework for Advancing Interdisciplinary Studies on the Ideal Form of the Co-Existence Between Human Beings and Artificial Subjects* (details can be found here <https://toyotafound.secure.force.com/psearch/JoseiDetail?name=D21-ST-0012>). The purpose of this project is to develop a new academic framework, "artificial subject studies," that brings together expertise from multiple disciplines, including philosophy, ethics, science/technology studies, cognitive science, artificial intelligence, psychology, neuroscience, and law, by placing the emerging embodied-situated conception of human existence at its theoretical core.

Resilience and Antifragility Research Group (March 2021-present)

I am leading an international research group with senior researchers John Clippinger (MIT Media Lab) and Kathryn Laskey (Director of the Center for Resilient and Sustainable Societies) dedicated to developing new computational models of resilience and anti-fragility for businesses, communities, and cities. We have ongoing theoretical and computer modelling work on the resilience of infrastructures (e.g. energy, information, healthcare, etc.) during natural natural disasters (including pandemics).

Augmented Emotions Research Group (June 2020-present)

I am co-leading an international research group with neuroscientist and entrepreneur Felix Schoeller (MIT Media Lab, Centre for Research and Interdisciplinarity) dedicated to exploring the theoretical, empirical and design implications of current and future augmented emotion technology. We work to convert theoretical ideas related to emotion-regulation into design solutions.

Cognitive Feeling Project (September 2021-present)

I am a collaborator on the 5-year JST CREST Project *Cognitive Feelings that Mediate Between Perception and Emotion* (<https://cognitive-feeling.jp/en/home/>). The project is based in Japan, and aims to elucidate the principle of cognitive feelings based on predictive processing as a unified brain theory.

Cognitive feelings include senses of knowing, confidence, reality, fluency, etc. about perceptual experiences. We hypothesize that perception and emotion about the perception are mediated by cognitive feelings. This project will provide a deeper and novel understanding of multi-sensing systems with cognitive feelings by integrating synthetic and analytic approaches.

MEDIA & ENGAGEMENT

- *Predictive Processing and Physical Therapy*. Todd Hargrove's Podcast. <https://www.youtube.com/watch?v=FPTSVwgjPfs>.
- *Predictive Processing Framework and Flourishing Wellbeing*. Predicting Better Podcast with Tony Fitzgerald. <https://www.youtube.com/watch?v=7fV3yJzv5zY>.
- *Predictive Processing, Well-Being and Wisdom*. Voices with Vervaeke. <https://www.youtube.com/watch?v=x4bO-3SJp1s>.
- *Being Mark Miller*. The Positive Encouragers Podcast. <https://anchor.fm/richmond-stace/episodes/Being-Mark-Miller-e1ffsti>.
- March 2022 I will launch a weekly podcast series entitled *The Contemplative Science Podcast* (sponsored by Monash University's *Center for Consciousness and Contemplative Studies*).
- *Relevance Realization, Predictive Processing and the No-Self Experience*. Voices With Vervaeke Podcast. <https://www.youtube.com/watch?v=zPrAlbMu4LU&t=3689s>.
- *Predictive Dynamics of Happiness and Well-Being*. Active Inference Lab's Guest Stream. <https://www.activeinference.org>. August 9 2021.
- *The Warping Effects of Social Media*. The Academic Minute, WAMC Northeast Public Radio. July 2021. *On Being a Cognitive Scientist*. Cognitive Science Society Podcast. July 2021.
- *Getting Unstuck*. The Positive Encouragers Podcast. <https://anchor.fm/richmond-stace/episodes/Mark-Miller--philosopher-of-cognition-e12saoc/a-a5t758k>. June 16 2021.
- *Philosophy and Cognitive Science: The Predictive Brain*. The Scientistt Podcast. <https://anchor.fm/scientistt/episodes/Philosophy-and-Cognitive-Science-The-Predictive-Brain-ev15k8/a-a58unil>. April 17 2021.
- Public Outreach, presenting research outputs from *Expecting Ourselves* to the public at The Digital Festival, Brighton UK, October 13 2019.
- Public Outreach, presenting neuroscience behind the award-winning psychological illusion 'The Mirage Box'. Camera Obscura, Edinburgh UK, September 2017.
- *Embodying Addiction*. Interview on the podcast *Philosophers Chatting with Clinicians*. February 11 2020. philsclinschat.podbean.com/e/3-maka/.

AWARDS & HONOURS

- SSHRC Postdoctoral Fellowship, University of Toronto, Canada.01/01/2023-12/30/2024 (110,000.00)
- Digital Citizens Grant 01/01/2023-12/30/2024 (10,000.00)

- Junior Research Fellow, The Centre for Mind and Cognition at Ruhr-University, Bochum, DE 09/01/2019-09/30/2019 (7,000.00).
- Nominated for University of Edinburgh's *Teacher of the Year* (for the undergraduate class *Introduction to Cognitive Science*). 12/01/2018.
- Royal Institute of Philosophy's Jacobson Studentship. 09/01/2017-09/01/2018 (8000.00£).
- University of Edinburgh's Gray's Prize in Philosophy for the publication *Happily Entangled: Prediction, Emotion and Embodied Cognition*. *Synthese*, 1-17. 06/2/2017.
- University of Edinburgh's Global International Doctoral Scholarship. 09/01/2014-09/01/2017 (44,000.00£).
- University of Edinburgh's College of Humanities and Social Sciences Doctoral Studentship 09/01/2014-09/01/2017 (50,000.00£).
- Frontier's Spotlight Award for the publication *The Embodied Brain: Towards a Radical Embodied Cognitive Neuroscience*. *Frontiers in Human Neuroscience*, 9, 237. 12/22/2015
- University of Edinburgh's Global International Master's Scholarship. 09/01/2010-09/01/2011 (3,000.00£).
- The Social Sciences and Humanities Research Council of Canada's Joseph Armand-Bombardier Canada Graduate Scholarship. 09/01/2010-09/01/2011 (17,500.00\$).
- Ontario Ministry of Training, Colleges, and Universities' Ontario Graduate Scholarship. 09/01/2010-09/01/2011 (5,000.00\$).

TEACHING

Teaching Assistant

- 2017 Knowledge and Reality (Undergraduate Philosophy), University of Edinburgh, UK.

Lecturer

- 2022 Philosophy of Artificial Intelligence. (Graduate Seminar), University of Hokkaido, Japan.
- 2021 Topics in the Philosophy of Cognitive Science: On Surfing Uncertainty (Graduate Seminar), University of Hokkaido, Japan.
- 2021 Topics in the Philosophy of Cognitive Science: On Action and Interaction (Graduate Seminar), University of Hokkaido, Japan.
- 2018, 2019, 2020, 2021 Introduction to Cognitive Science (Undergraduate Cognitive Science), University of Edinburgh, UK.
- 2020 The Value of Uncertainty (seminar at *Touch Symposium*, an ethics of technology and artificial intelligence summer school); December 3.
- 2020 Ethics of Artificial Intelligence. Lead organizer of a 12-week online course sponsored by the Beneficial A.I. Society and Cognitive Science Society at University of Edinburgh, UK.
- 2019 Entangled Predictions: Introduction to Embodied Predictive Processing (Undergraduate Proseminar Cognitive Science), Tubingen University, DE. July 6-7.

- 2018 Advanced Topics in Mind, Language and Embodied Cognition (Graduate Philosophy, Psychology and Language Sciences), University of Edinburgh, UK.
- 2018 CogLab: Seminars in Contemporary Cognitive Science (Graduate Cognitive Science), University of Edinburgh, UK.
- 2018 Philosophy Skills (Undergraduate Philosophy Modules), University of Edinburgh, UK.

Guest Lecturer

- 2021 Modern and Contemporary Philosophy (Graduate Seminar), University of Hokkaido, Japan.
- 2021 Introduction to Cognitive Science (Undergraduate Informatics), University of Edinburgh, UK.
- 2021 Indian Philosophies of Mind and Language (Undergraduate Philosophy), University of Edinburgh, UK.
- 2018 Perception, Action and Cognition (Undergraduate Neuroscience), University of Edinburgh, UK.
- 2017 Advanced Mind, Language and Embodied Cognition (Graduate Philosophy, Psychology and Language Sciences), University of Edinburgh, UK.
- 2017 Introduction to Predictive Processing (Undergraduate Philosophy, Psychology and Language Sciences), University of Edinburgh, UK.

PROFESSIONAL & COMMUNITY SERVICE

- Associate Editor. *Cognitive Systems Research*.
- Program Committee, IWAI 2022 The 3rd International Workshop on Active Inference. <https://iwaiworkshop.github.io>
- Program Committee, IWAI 2021 The 2nd International Workshop on Active Inference. <https://iwaiworkshop.github.io>
- Member of the Emergent Phenomenology Research Consortium (EPRC), a research project that brings together clinical, scientific and spiritual paradigms to improve clinical outcomes. <https://theeprc.org/>.
- Organizer, *Virtual Philosophy, Psychology and Informatics Group Seminar Series*. University of Edinburgh, UK. <https://blogs.ed.ac.uk/virtualppig/>.
- Organizer, *Philosophy of Psychiatry Reading Group*. University of Sussex, UK. <https://canvas.sussex.ac.uk/courses/15059>.
- Journal Referee: *Artificial Intelligence*; *Journal of Philosophy*; *British Journal of Philosophy*; *Journal of Consciousness Studies*; *Journal of Psychology*; *Synthese*, *Behavioural Brain Research*, *Psychonomic Bulletin & Review*. *Phenomenology and the Cognitive Sciences*; *Frontiers of Psychology*, *Analysis*.
- Project Supervisor: 2019 M.Sc. Mind, Language and Embodied Cognition thesis (5 students), University of Edinburgh, UK. 2020 M.Sc Cognitive Science thesis (1 student), University of Edinburgh, UK. 2021-2022 PhD Philosophy of Cognitive Science thesis (1 student).

REFEREES

Curriculum Vitae - Mark Miller

Professor Andy Clark (University of Sussex, UK): andy.clark@sussex.ac.uk

Dr. Julian Kiverstein (Amsterdam Medical Centre, Netherlands): j.d.kiverstein@amsterdamumc.nl