

# COLIN KLEIN

# CURRICULUM VITAE

Department of Philosophy  
Macquarie University NSW 2109  
Australia

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## EMPLOYMENT & AFFILIATIONS

Macquarie University

- ARC Future Fellow (2014-2018)
- Senior Lecturer, Department of Philosophy (2015–present)
- Lecturer, Department of Philosophy (2014–2015)
- Associate Investigator, ARC Centre of Excellence in Cognition and its Disorders (CCD) (2014–present)

Australian National University

- Research Fellow, School of Philosophy (2013)

University of Illinois at Chicago

- Associate Professor, Department of Philosophy (2011–2013)
- Assistant Professor, Department of Philosophy (2006–2011)
- Member, Laboratory of Integrative Neuroscience (2006–2013)

## EDUCATION

Ph.D in Philosophy, Princeton University (January 2007)

Thesis: *Idealizing the Mind*

Primary advisor: Karen Bennett.

Visiting Graduate Student, Australian National University (2004)

B.A. *summa cum laude* in Philosophy & Scientific and Philosophical Studies  
of Mind, Franklin and Marshall College (2001)

## AREAS OF SPECIALIZATION

Philosophy of Psychology, Philosophy of Mind, Philosophy of Science

## BOOKS

- *What the Body Commands: The Imperative Theory of Pain.* (2015) Cambridge, MIT Press.
  - Winner of the 2016 David Harold Tribe Award in Philosophy.

## JOURNAL ARTICLES AND BOOK CHAPTERS

- “Hypocrisy and Moral Authority” Jessica Isserow and Colin Klein. Forthcoming in *Journal of Ethics and Social Philosophy*
- “Ghosts in Machine Learning for Cognitive Neuroscience: Moving from Data to Theory” Thomas A Carlson, Erin Goddard, David M Kaplan, Colin Klein, J. Brendan Ritchie. Forthcoming in *Neuroimage*
- “Interpreting the dimensions of neural feature representations revealed by dimensionality reduction” Erin Goddard, Colin Klein, Samuel G Solomon, Hinze Hogendoorn, and Thomas A Carlson. Forthcoming in *Neuroimage*.
- “What do predictive coders want?” forthcoming in *Synthese*.
- “Computation, Consciousness, and ‘Computation and Consciousness’” forthcoming in *Routledge Handbook on Philosophy of Computation*, ed. Mark Sprevak and Matteo Colombo.
- “Mental Representation and Decoding Methods in Cognitive Neuroscience” Brendan Ritchie, David Kaplan, and Colin Klein. Accepted for *The British Journal for the Philosophy of*

*Science*

- “Putting the ‘social’ back in social psychology” Accepted for *Current Controversies in Philosophy of Cognitive Science*, Routledge, ed. Simon Cullen and Sarah-Jane Leslie
- “Imperativism and Pain Intensity” (w/ Manolo Martínez) accepted for *The Philosophy of Pain: Unpleasantness, Emotion, and Deviance*. ed. David Bain, Michael Brady, and Jennifer Corns. New York: Routledge.
- “Taxonomising Delusions: Content or Aetiology?” Peter Clutton, Stephen Gadsby, and Colin Klein. (2017) *Cognitive Neuropsychiatry* 22(6): 508-527.
- “Pain, care, and the Body: A response to de Vignemont” (2017) *Australasian Journal of Philosophy* 95(3): 588–593
- “Imperativism” (2017) in *The Routledge Handbook of Philosophy of Pain*, ed. Jennifer Corns. New York: Routledge: 51-59.
- “Brain regions as difference makers” (2017) *Philosophical Psychology* 30(1–2): 1–20.
- “What is a Cognitive Ontology, Anyway?” Anelli Janssen, Colin Klein, and Marc Slors. (2017) *Philosophical Explorations* 20(2) 123–128. “Cognitive ontologies in philosophy of mind and philosophy of psychiatry”
- “Consciousness, Intention, and Command Following in the Vegetative state” (2017) *The British Journal for the Philosophy of Science*. 68(1): 27-54.
- “Wang Chong’s epistemology of testimony” Esther Klein and Colin Klein (2016) *Asia Major Third Series*, 29(2): 115–147.
- “Insect consciousness: Commitments, conflicts and consequences” (2016) Colin Klein and Andrew Barron. *Animal Sentience* 1(9.21) <http://animalstudiesrepository.org/animsent/vol1/iss9/21/>
- “Insects have the capacity for subjective experience” (2016) Colin Klein and Andrew Barron. *Animal Sentience*. 1(9.1) <http://animalstudiesrepository.org/animsent/vol1/iss9/1/>
- “Pain signals are predominantly imperative” (2016) Manolo Martínez and Colin Klein. *Biology and Philosophy* 31:283–298.
- “What insects can tell us about the origins of consciousness” Andrew Barron and Colin Klein (2016) *Proceedings of the National Academy of Sciences* 113(18): 4900–4908.
- “Olympia and other O-Machines” (2015) *Philosophia* 43(4): 925–931.
- “Variability, convergence and dimensions of consciousness” (2015) Colin Klein and Jakob Hohwy. In *Behavioral Methods In Consciousness* ed. Morten Overgaard, Oxford: Oxford University Press: 249–264.
- “What Pain Asymbolia Really Shows” (2015) *Mind* 124(494): 493–516.
- “The Brain At Rest: What It Is doing and Why that Matters” (2014) *Philosophy of Science* 81(5) : 974–985.
- “Psychological Explanation, Ontological Commitment, and the Semantic view of Theories” (2014) in *New Waves in Philosophy of Mind*, ed. Mark Sprevak and Jesper Kallestrup. New York, Palgrave Macmillan: 208-225.
- “The Penumbral Theory of Masochistic Pleasure” (2014) *The Review of Philosophy and Psychology* 5(1):41-55
- “No Problem.” (2014) David Hilbert and Colin Klein. In *Consciousness Inside and Out*, ed Richard Brown. Oxford: Oxford University Press: 299-306.
- “Multiple Realizability and the Semantic View of Theories” (2013) *Philosophical Studies* 163(3): 683-695.
- “Imperatives, Phantom Pains, and Hallucination by Presupposition” (2012) *Philosophical Psychology* 25(6): 917-928.
- “Cognitive Ontologies and Region- versus Network-Oriented Analyses” (2012) *Philosophy of Science* 79(5): 952-960.
- “Two Paradigms for Implementation” (2012) *Journal of Cognitive Science* 13(2): 167-179.

- “The Dual Track theory of Moral Decision-Making: A Critique of the Neuroimaging Evidence” (2011) *Neuroethics* 4, pp143-162.
- “Neuroimaging senza localizzazione” *Sistemi Intelligenti* (2011). Trans. Massimo Marraffa a. XXIII, n. 1, Aprile 2011, pp113-132.
- “Response to Tumulty on Pain and Imperatives” (2010) *The Journal of Philosophy* CVII(10), pp 554-557.
- “Images are not the Evidence in Neuroimaging” (2010) *The British Journal for the Philosophy of Science*. 61, pp. 265-278
- “Confirmation, Refutation and The Evidence of fMRI.” (2010) Chris Mole and Colin Klein. In *Foundational Issues in Human Brain Mapping*, ed. Martin Bunzl and Stephen José Hanson. Cambridge, MIT press: 99-112.
- “Philosophical Issues in Neuroimaging.” (2010) *Philosophy Compass*. 5(2), pp. 186-198.
- “Reduction Without Reductionism: A Defence of Nagel on Connectability.” (2009) *Philosophical Quarterly*. 59(234), pp. 39-53.
- “Dispositional Implementation Solves the Superfluous Structure Problem.” (2008) *Synthese*. 165(1), pp. 141-153.
- “An Ideal Solution to Disputes about Multiply Realized Kinds.” (2008) *Philosophical Studies*. 140(2), pp. 161-177.
- “An Imperative Theory of Pain.” (2007) *The Journal of Philosophy* CIV(10), pp. 517–532.
- “Kicking the Kohler Habit.” (2007) *Philosophical Psychology* 20(5), pp. 609–619.
- “Events as Changes in the Layout of Affordances.” (2003) Anthony Chemero, Colin Klein and William Cordeiro. *Ecological Psychology*,15(1), 19-28.

## LETTERS, COMMENTARIES, AND REVIEWS

- ‘Precaution, proportionality and proper commitments.’ (2017) Commentary in *Animal Sentience* 16(9). <http://animalstudiesrepository.org/animalsent/vol12/iss16/9/>
- Review of *Tense Bees and Shell-Shocked Crabs: Are Animals Conscious?* by Michael Tye. *Notre Dame Philosophical Reviews* (April 2017).
- “Reply to S.A. Adamo, B. Key et al, and M. Schilling & H. Cruse: Crawling around the hard problem of consciousness.” Colin Klein and Andrew Barron (2016) *Proceedings of the National Academy of Sciences* 13(27), E3814-E3815
- Review of *Reliability in Cognitive Neuroscience: A Meta-Meta-Analysis* by William R. Uttal. (2015) *Philosophical Psychology* 28(4): 606-609.
- Review of *Engineering the Next Revolution in Neuroscience: The New Science of Experiment Planning* by Alcino J. Silva, Anthony Landreth, and John Bickle. (2014) *Philosophy of Science* 81(3): 486-489.
- Review of *Brain Imaging; What it Can (and Cannot) Tell us about Consciousness* by Robert G. Shulman. *Notre Dame Philosophical Reviews* (June 2013).
- Review of *Explaining the Brain* by Carl F. Craver (2012) *Mind* 121(481): 165-169.
- “Did the Chinese have a Change of Heart?” (2012) Esther Klein and Colin Klein. *Cognitive Science* 36(2), pp. 179-182.
- “Critical Notice: *Cognitive Systems and the Extended Mind* by Robert Rupert” (2010) *The Journal of Mind and Behavior* 31(3&4), pp. 253-264.
- “Redeployed Functions Versus Spreading Activation: A Potential Confound” (2010) Commentary on “Neural reuse: A fundamental organizational principle of the brain” by Michael L. Anderson. *Behavioral and Brain Sciences* 33, pp. 280-281.

## CONFERENCE AND INTERNATIONAL TALKS

- Corpus Analysis of an Online Chronic Pain Forum. “Science of Self” Conference, Sydney, November 2017
- An Interspecies Perspective on the Dimensions of Pain. September 2017: “The Nature of

Pain” Ruhr-University Bochum

- Online conspiracy theorizing and the psychology of trust: CCD-CAVE workshop on Troublesome Beliefs, August 2017; SASP-SPSSI Conference on The Morality of Conflict and Cooperation, April 2017.
- Cognitive Ontology: A field guide. Summer School in Neuroscience and Psychology, Duke University, May 2017
- Author Response, Author Meets Critics session on *What the Body Commands*: Eastern APA, Jan 2017.
- From Humans to Insects and Back Again: Methodological Reflections on the Study of Invertebrate Consciousness: Azrieli Program in Brain, Mind and Consciousness (CIFAR), Dec 2016
- Delusions and conspiracy theories: cognitive neuroscience meets corpus analysis: Australasian Cognitive Neuroscience Society (invited Symposium), November 2016
- Cognitive ontology: living with less than unification: ‘Reshaping the mind’ Workshop, Macquarie University, Jun 2016; Australian National University, Oct 2016
- Suffering and the varieties of bodily care: ‘The Value of Suffering’ workshop, Macquarie University, Feb 2016
- What do predictive coders want?: Wollongong workshop on Predictive Coding and Embodied Cognition, Nov 2015
- What insects can tell us about the origins of consciousness (co-presented with Andrew Barron): SydPP Keynote speech, May 2016. (Also presented by Andrew Barron at ICN 2016 and OCNS 2015)
- Coordinating Cognitive Ontologies: Lessons and Challenges for the Study of Cognition: Society for Philosophy and Psychology, Duke University, Jun 2015; Monash University, May 2015; Berlin Cognitive Ontology Workshop, Feb 2015
- Olympia and other O-Machines: Pacific APA, April 2015
- Brain Regions as Difference-Makers: Philosophy of Science Association, November 2014; Wollongong University, October 2014; University of New South Wales, October 2014; Macquarie University, September 2014; University of Sydney, October 2013; Australian National University, October 2013; National Taiwan University, October 2013
- Naturalism and Degrees of Pain (with Manolo Martínez): Pacific APA Invited Symposium, April 2014
- What is your brain doing when you are not doing anything? : University of Adelaide, August 2013; Australasian Association for Philosophy, July 2013; University of Sydney HPS, June 2013
- Rest: What it is and Why It Matters: Philosophy of Science Association, November 2012
- What Pain Asymbolia Really Shows: University of Glasgow, May 2012
- Neuroimaging and Cognitive Ontologies: Co-option or Co-evolution? : ‘Imaging the Mind?’, Amsterdam, April 2011
- Cognitive Ontology and Region- versus Network-Oriented Analyses: Philosophy of Science Association, November 2010
- Pain and Painfulness: Franklin and Marshall College, October 2010
- Philosophy, Rhetoric, & Wang Chong’s Inductive-Deductive Method (with Esther Klein): Midwest Conference on Chinese Thought, DePaul University, May 2010
- Phantom Limbs and the Imperative Account of Pain: Northern Illinois University, April 2009; University College Dublin, March 2009
- Kicking the Kohler Habit (with Gabriel Love): ASSC 10th Annual Conference, Oxford University, June 2006
- An Imperative Theory of Pain: ASSC 9th Annual Conference, Cal Tech, June 2005

## OTHER SEMINARS AND COLLOQUIA

- Online conspiracy theorizing and the psychology of trust: Sydney University, April 2017.
- Cognitive ontology: living with less than unification: Sydney University and Macquarie University Work-in-Progress Seminars, May 2016; Australian National University seminar October 2016.
- Pains as commands: a sketch and some consequences: University of Queensland psychology department, May 2016.
- Processes and capacities in the study of cognitive control: Sydney University and Macquarie University Work-in-Progress Seminars, April 2015
- Mental Representation and Decoding Methods in Cognitive Neuroscience (with Brendan Ritchie): Australasian Society for Cognitive Science, December 2014, PinA Lab Group, Macquarie University, November 2014
- Hypocrisy and Moral Authority (with Jess Isserow): ANU September 2014
- Mechanisms and Resources: CogSci Kioloa, June 2014
- A Penumbral Theory of Masochistic Pleasure: ANU Philsoc, July 2013
- Brain Imaging, the Vegetative State, and Cryptic Consciousness : Macquarie University, March 2013; Australian National University, February 2013
- Neuroimaging Without Neural Localization: University of Illinois Urbana-Champaign META Group, March 2012; Notre Dame Institute for Advanced Studies, March 2012; University of Cincinnati, November 2011; Georgia State University, January 2011
- Putting the ‘Social’ Back in Philosophy of Psychology: UIC Psychology Brownbag, March 2012
- Against Levels: Pacific APA, Society for the Metaphysics of Science, April 2011
- Comments on ‘Moral Theorizing on the Ground’: Pacific APA Commentary, April 2011
- Integration, Invariance, and Rupert’s Approach to Demarcation: Southern Society for Philosophy and Psychology, April 2010
- Emotion, Reason, and the Functional Imaging of Moral Deliberation: UIC Humanities Fellow Lecture, December 2010; Johns Hopkins University, November 2009; University of Miami, November 2009
- Abstraction and the Shape of Reduction: Central APA, Society for the Metaphysics of Science, February 2009
- The Modeler’s Dilemma: Boston University, January 2009

## ENGAGEMENT

**Public Engagement**

- “Gay-identifying AI tells us more about stereotypes than the origins of sexuality.” In *The Conversation*. <https://tinyurl.com/y7xghe41>
- “Sci phi” podcast featured philosopher of Science, June 2017, [www.sciphipod.com](http://www.sciphipod.com)
- “Is Pain all in your head?” Pint of Science, May 2017.
- “The Philosophy of Pain,” invited presentation to the ‘Kinky Hong Kong’ gathering (via Skype), November 2016.
- Live radio interview for ABC Radio National Afternoons on insect consciousness, April 22, 2016. Archived version at <http://tinyurl.com/jnj71g>
- “What can insects tell us about the origins of consciousness?” (Colin Klein and Andrew Barron) in *The Conversation* <http://tinyurl.com/z5zk4tv>
- New Books in Philosophy podcast, January 15 2016. <http://tinyurl.com/z1gnt7b>
- ‘When We Enjoy our Pains: The Mysteries of Masochistic Pleasure.’
  - \* ‘Philosophy Short Cuts’ series, Macquarie University, May 2015
  - \* Sydney Nerd Night, May 2015
- ‘When Should I Throw Myself on a Hand-Grenade?’ as part of ‘Art, Access, and Action: The Moral Imperative,’ Columbia College Chicago, April 2010

### Media Coverage of Work

- “To Bee or Not to Bee’ *Smithsonian Magazine* July/August 1016, p19.
- “Les insectes sont conscients : pourquoi il ne faut pas faire de mal à une mouche” *L’Obs*, April 28, 2016. <http://tinyurl.com/ja62zbr>
- “Insects smarter than we thought, Macquarie University academics say” Sun-Herald in print and Sydney Morning Herald online, April 24, 2016 <http://tinyurl.com/jqopkbx>
- “Dawn of consciousness traced to insect forebears, more than 500 million years ago” *Melbourne Age* April 20, 2016 <http://tinyurl.com/jtnanba>
- “Do Insects Have Consciousness and Ego?” *Smithsonian Magazine Online* April 19, 2016. <http://disq.us/9jgv3f>
- “Do Honeybees Feel? Scientists Are Entertaining the Idea.” *New York Times* in print April 19, 2016. <http://nyti.ms/26bdZFd>
- “Insects could shed light on evolution of consciousness” *Australian Geographic* Online April 18, 2016 <http://tinyurl.com/hlyt3uo>

### CONFERENCES AND WORKSHOPS ORGANIZED

- “Conspiracy theories, delusions and other ‘troublesome’ beliefs”, Macquarie University, August 2017
- “Reshaping the mind: New work on cognitive ontology,” Macquarie University, June 2016
- Joint workshop “The Feeling of Suffering” (co-organized with the Glasgow Value of Suffering project, CAVE, and UNSW), Macquarie University, February 2016
- Australasian Association for Philosophy (Organizing Committee), Macquarie University, July 2015
- CAVE-CCD Workshop: “Amnesia and identity: Self, memory, and moral psychology” (co-organizer), Macquarie University, 2015
- “Predictive Coding, Agency, and Delusions” Macquarie University, May 2015
- Macquarie Cognitive Ontology Workshop, Macquarie University, February 2015
- Sid Simpson Symposium (co-organizer with the Laboratory for Integrative Neuroscience), University of Illinois at Chicago, April 2012

### GRANTS

- Macquarie Faculty of Arts Visiting Research Fellowship grant to host Carl Craver in 2017
- Macquarie University Research Development Grant (with Vincent Polito and David Kaplan) “The science of human responsibility: An interdisciplinary approach to understanding the sense of agency.” (2016-2017)
- CAVE Workshop grant for “The Feeling of Suffering” (2016)
- CAVE Workshop grant for “Predictive Coding, Agency, and Delusions” (2015)
- Australian Research Council Future Fellowship FT140100422 (2014-2018)
- Macquarie Faculty Research Travel Scheme (2014)
- LAS Interdisciplinary Research Award (with David Hilbert, Anne Eaton, and David Wirtshafter) (2009)
- Research Development Grant, Irish Research Council for the Humanities and Social Sciences (with Chris Mole) (2009)

### AWARDS AND COMPETITIVE FELLOWSHIPS

- David Harold Tribe Philosophy Award (2016), awarded for *What the Body Commands*
- Visiting International Professor , Ruhr University Bochum (2017-2018)
- Faculty Award for Research Excellence, Macquarie University (2016)
- Research Fellow, Australian National University (2013)
- UIC Humanities Institute Fellow (2009-10)

- Graduate Student Fellowship, Princeton University (2001-6)
- Edward S. Reed Prize, F&M College (2001)
- Phi Beta Kappa, Franklin and Marshall Chapter (2001)
- Dana Scholar, F&M College. (1999-2001)
- John Marshall Scholar, F&M College. (1997-2001)

## SERVICE

- Secretary, Australasian Society for Philosophy and Psychology (2017-present)
- Co-editor (with Marc Slors and Anelli Janssen) of a special issue of *Philosophical Explorations* (20-2) entitled “Cognitive ontologies in philosophy of mind and philosophy of psychiatry”
- Organizing Committee, Australasian Society for Philosophy and Psychology (2016)
- MQRDG Research Projects panel (S2 2016)
- MQ Departmental International Engagement Coordinator (S1 2014, S1 2016-present)
- Associate editor for *Philosophical Explorations* (2015-present)
- Area editor for *Ergo* (philosophy of mind), (2015-present)
- Program Committee Member, European Philosophy of Science Association (2015)
- Program Committee Member, Australasian Society for Cognitive Science (2014)
- Program Committee Member, Philosophy of Science Association (2014)
- ANU Thursday Seminar Convener (S2 2013)
- UIC LAS Educational Policy Committee (2011-2012, Chair F’12)
- Graduate Admissions Committee, UIC philosophy department (2007-8, 2011-12)
- UIC Honors College Faculty Fellow (2011-2013)
- UIC Student Conduct Panel Member (2011-2013)
- UIC LAS scholarship committee (2011)
- UIC Philosophy Department Executive Committee (2010-12)
- Webmaster & Gossip-monger, UIC philosophy department (2006-12)
- UIC LAS quorum committee (2006-9)
- Recent Reviewer for *Philosophy of Science*, *British Journal for the Philosophy of Science*, *Mind*, *Australasian Journal of Philosophy*, *Philosophical Psychology*, and *Synthese*, &c &c

## CLASSES TAUGHT

- **Macquarie:**
  - Body and Mind
  - MRes seminar: Research Topics in Philosophy and Cognitive Science
  - (co-taught) FOAR 702: Posthumanism
- **University of Illinois at Chicago:**
  - Introduction to Philosophy (x3)
  - Introductory Logic (x3)
  - Philosophy of Psychology (x6)
  - Philosophy of Science
  - Philosophy of Language
  - Topics in Philosophy of Mind: Pain Perception (x2)
  - Topics in Philosophy of Science: Scientific Explanation
  - Graduate seminar: Nonreductive physicalism
  - Graduate seminar: Functions and Parts
  - Graduate Seminar: From Brain to Mind
  - Graduate Seminar: Explanation and Reduction
  - First Year Graduate Writing Seminar

## POSTGRADUATE ADVISING

## ◦ Macquarie University (PhD)

**As primary supervisor:**

- Anelli Janssen (in progress) *Explanations in functional neuroimaging research*
- Antonios Kaldas (in progress) *Attention, Consciousness, and Working Memory*
- Peter Clutton (in progress) *A Cognitive phenomenological defence of doxasticism about delusions*
- Matthew Tuxford (in progress) *Complexity Economics: A Mechanistic Methodological Framework for Economic Science*

**As associate supervisor:**

- Trisha Nowland (in progress) *A conceptual framework for the generalized latent variable model.*

## ◦ Macquarie University (MRes)

**As primary supervisor:**

- Meg Ivory (in progress) *Drosophila melanogaster as a model for schizophrenia: a philosophical inquiry.*
- Dorian Minors (2017) *The nature of representation in cognitive control*
- Stephen Gadsby (2016) *Anorexia Nervosa and Body Representation*
- Dinyar Mistry (2015) *Models of Neural Computation: An Examination of David Chalmers' Causal Theory of the Mind*
- Peter Clutton (2015\*) *A Realist Defence of Doxasticism about Delusions: The Cognitive Phenomenological Defence*

\* Received university medal

**As associate supervisor:**

- Michael Ledger (2015) *What Makes Us Responsible: Fischer and Ravizza on Implicit Attitudes*

## ◦ University of Illinois at Chicago (PhD)

- Janella Baxter (2017) *Causal Parity and Causal Selection in Molecular and Cellular Biology.* (Committee)
- Burkay Ozturk (2014) *The Pessimistic Induction and Epistemic Status of Theories: The Extent and The Limits of Post-Computerization Optimism* (Primary Supervisor)
- Sean Morris (2012) *Investigating the Universe: Quine, New Foundations, and the Philosophy of Set Theory* (Committee)
- Aleks Zarnitsyn (2012) *Fictioning Thought Experiments* (Committee)
- Robert Fischer (2011) *Modal Knowledge, In Theory* (Associate Supervisor)
- Seishu Nishimura (2010) *A Theory of Perceptual Entitlement* (Associate Supervisor)
- David Potts (2010) *Theories of Experiential Awareness* (Associate Supervisor)