

# ALIYA RUMANA

---

CONTACT	<a href="mailto:aliyarumana@arizona.edu">aliyarumana@arizona.edu</a> <a href="http://aliyarumana.com">aliyarumana.com</a> (she/her)	Department of Philosophy University of Texas at El Paso Worrell Hall 203 500 W University El Paso, Texas 79968
SPECIALISATIONS	general philosophy of science philosophy of neuroscience & cognitive science philosophy of artificial intelligence	
COMPETENCIES	ethics (including metaethics & neuroethics) philosophy, politics, & economics (PPE)	
EMPLOYMENT	<b>Assistant Professor</b> (since 2025) Department of Philosophy University of Texas at El Paso	
	<b>Postdoctoral Associate</b> (2024–2025) Center for Philosophy of Science University of Pittsburgh	
	<b>Postdoctoral Research Fellow</b> (2023–2024) Centre for Philosophy & Artificial Intelligence Research University of Erlangen-Nuremberg	
EDUCATION	PhD      Philosophy, neuroscience (doctoral minor), & cognitive science (doctoral minor), University of Arizona (2017–2023)  <i>Dissertation title:</i> “Robust normativity in complexity science” <i>Committee:</i> Sara Aronowitz (co-chair), Mark Timmons (co-chair), Jonathan Weinberg, Allen Buchanan.	
	MA      Philosophy, York University (2015–2016)	
	BBA      Schulich School of Business, York University (2010–2014)	
JOURNAL ARTICLES	<b>Explaining mechanism-task fit in neuroscience.</b> <i>British Journal for Philosophy of Science</i> (2025). <a href="#">[doi]</a>	
	<b>Anatomy’s role in mechanistic explanations of organism behaviour.</b> <i>Synthese</i> , 203.47 (2024). <a href="#">[doi]</a>	
	<b>In praise of animals. (with Rhys Borchert)</b> <i>Biology &amp; Philosophy</i> , 38.24 (2023). <a href="#">[doi]</a>	
	<b>Metacognitive control in single- vs. dual-process theory.</b> <i>Thinking &amp; Reasoning</i> , 29.2: 177–212 (2023). <a href="#">[doi]</a>	
	<b>Arbitrating norms for reasoning tasks.</b> <i>Synthese</i> , 200: 502 (2022). <a href="#">[doi]</a>	

	<b>Anthropomorphism and anthropectomy as friendly competitors.</b> <i>Philosophical Psychology</i> , 30.7: 970–91 (2017). <a href="#">[doi]</a>
	<b>A dual systems theory of incontinent action.</b> <i>Philosophical Psychology</i> , 30.7: 925–44 (2017). <a href="#">[doi]</a>
BOOK CHAPTERS	<b>What do NeuroAI models represent?</b> Invited for D. P. Rowbottom, A. Curtis-Trudel, & D. L. Barack (Eds.), <i>The Role of Artificial Intelligence in Science: Methodological and Epistemological Studies</i> . Routledge (contracted).
	<b>Task design for metareasoning.</b> Invited for L. Ball & B. Richardson (Eds.), <i>International Handbook for Metareasoning</i> , Routledge (contracted).
	<b>Cognitive conflict in decision science: From resolution to detection. (first author; coauthored with Corey Allen &amp; Katherine Boere)</b> Forthcoming in F. De Brigard & W. Sinnott-Armstrong (Eds.), <i>Neuroscience &amp; Philosophy</i> , Vol. 2, MIT Press (forthcoming).
BOOK REVIEWS	<b>Are more details better for deep histories?</b> Review of <i>It's only human: The evolution of distinctively human cognition</i> by A. W. Schulz. <i>Metascience</i> (2025). <a href="#">[doi]</a>
	<b>Balancing the evidential scale for the mental unconscious.</b> Review of <i>Open minded: Searching for the truth about the unconscious mind</i> by B. R. Newell & D. R. Shanks. <i>Philosophical Psychology</i> (2024): 1–5. <a href="#">[doi]</a>
COMMENTARIES	<b>Pressing Christie et al.'s (2023) objection: Why single out selected effects?</b> <i>Australasian Philosophical Review</i> , 6(4): 412–7 (2024). <a href="#">[doi]</a>
	<b>Categorizing judgments as likely to be selected by intuition or deliberation.</b> <i>Behavioral &amp; Brain Sciences</i> , 46.E118 (2023). <a href="#">[doi]</a>
	<b>Reframing single- and dual-process theories as cognitive models: Commentary on De Neys (2021).</b> <i>Perspectives on Psychological Science</i> , 16.6 (2021): 1428–31. <a href="#">[doi]</a>
GRANTS, HONOURS, & AWARDS	<b>Summer Seminar in Neuroscience and Philosophy (SSNAP), Duke University</b> 2023 Co-principal investigator on “ <i>A multilevel neural framework of self-processing</i> ” project, an fMRI experiment at Marco Iacoboni’s lab at the University of California, Los Angeles, USA (\$30,000 USD)
	2023 Co-principal investigator on “ <i>Temporal dynamics of conflict detection in moral decision-making</i> ” project, an EEG experiment at Olav Krigolson’s lab at the University of Victoria, Canada (\$20,000 USD)
	2023 Fellowship (\$1,000 USD)
	<b>Institute for Humane Studies, George Mason University</b> 2023 Junior Fellowship (\$6,000 USD) 2022 George W. Gibbs Grant (\$6,000 USD)

2018–2022 Graduate Fellowships (\$11,500 USD)  
2018 Hayek Travel Grant (\$400 USD)

**Philosophy of Animal Minds & Behaviour Association (PAMBA)**  
2023 Best Essay Prize for “*In praise of animals*” with Rhys Borchert (\$3,000 CAD)

**Moral Narratives Workshop, Princeton University**  
2022 Fellowship (\$500 USD)

**Herbert Carter Travel Award, University of Arizona**  
2022 award for interdisciplinary presentation (\$400 USD)

**Centre for the Philosophy of Freedom, University of Arizona**  
2017 Doctoral Fellowship (\$8,500 USD)

**Government of Ontario, Canada**  
2017 Graduate Scholarship (\$15,000 CAD, declined)

**Kitty & Lou Newman Memorial, York University**  
2016 Graduate Scholarship (\$12,000 CAD)

**Graduate Scholarship, York University**  
2015–2016 Graduate Scholarship (\$9,000 CAD)

**Department of Mathematics, York University**  
2013–2014 Chair’s Honour Roll

#### SELECTED TALKS

##### **Problem analysis in memory psychology.**

(\*) Invited  
*Issues in Philosophy of Memory 5 conference*, Philosophy of Memory Organization,  
Purdue University, IN, June 2026.  
*Southern Society for Philosophy & Psychology*, Atlanta, GA, February 2026.

##### **Norm arbitration as a problem for functional analysis.**

*\*Philosophy of Science of Decision-making seminar*, online, Feb 2026.  
*\*Department of Philosophy at University of Victoria colloquium*, online, Nov 2025.

##### **Task-based modelling in NeuroAI.**

*Deep South Philosophy & Neuroscience Workgroup*, Pensacola, FL, Sep 2025.  
*\*Center for Philosophy of Science*, University of Pittsburgh, PA, March 2025.  
*Southern Society for Philosophy & Psychology*, Cincinnati, OH, March 2024.

##### **Multi-level confirmation in cognitive modelling.**

*Society for Philosophy & Psychology*, Cornell University, Ithaca, NY, June 2025.  
*\*3rd Luxembourg Workshop on AI & Epistemology*, University of Luxembourg,  
Luxembourg, Jun 2024.  
*Issues in Philosophy of Memory 3.5*, Philosophy of Memory Organization, online, Oct  
2023.

##### **Are human strategies exceptional?**

*\*Decentering the Human in the Human Sciences*, Center for Philosophy and History of  
Science, Boston University, MA, May 2025.

**Rationality's role in rational analysis.**

*Southern Society for Philosophy & Psychology*, Mobile, AB, April 2025.

*Central Division of the American Philosophical Association*, New Orleans, LA, Feb 2024.

**Explaining mechanism-task fit in neuroscience.**

*\*Center for Philosophy of Science*, University of Pittsburgh, PA, Nov 2024.

*International Society for the Philosophy of the Sciences of the Mind*, online, Nov 2024.

*Deep South Philosophy & Neuroscience Workgroup*, Pensacola, FL, Oct 2024.

*\*Concepts for Understanding Brain Organization*, City University Paris, Paris, Jun 2024.

**Conflict as an entry point to decision-making. (presented with Corey Allen)**

*\*Summer Seminars in Neuroscience & Philosophy*, Duke University, Durham, NC,

August 2024.

**Ideological propositions and ideology critique. (presented with Anna-Bella Sicilia)**

*Social Ontology*, Duke University, Durham, NC, July 2024.

**Anatomy's role in behavioural explanation.**

*International Society for the Philosophy of the Sciences of the Mind*, online, Nov 2023.

*Philosophy of Science Association*, Pittsburgh, PA, Nov 2022.

*Society for Philosophy & Psychology*, online, Jun 2021.

**Can animals be moral agents? (presented with Rhys Borchert)**

*\*Philosophy of Animal Minds & Behaviour Association*, Central Division of the

American Philosophical Association, New Orleans, LA, Feb 2024.

**(Basal) memory as sensitivity to backward-facing concerns. (presenter, co-authored with Urtė Laukaitytė)**

*Unconventional Memory Workshop*, *Munich Center for Mathematical Philosophy*, LMU Munich, Munich, Sep 2023.

**Prediction and planning in complex political systems. (presenter, co-authored with Travis Quigley)**

*\*Political Theory Seminar*, *University of Bamberg*, Bamberg, DE, Oct 2023.

*\*Junior Fellowship Workshop*, *Institute for Humane Studies*, Raleigh, North Carolina, May & Aug 2023 [two sessions].

*\*Graduate Workshop*, *Institute for Humane Studies*, online, Apr 2022.

*\*Graduate Workshop*, *Institute for Humane Studies*, George Mason University, Fairfax, VA, Oct 2019.

**In praise of animals (presented with Rhys Borchert).**

*Philosophy of Animal Minds & Behaviour Association*, Madrid, Apr 2023.

**Irreducible normativity in biological functions.**

*Society for Metaphysics of Science*, Eastern Division of the American

Philosophical Association, Montréal, QC, Jan 2023.

**Reasoning improvements after cognitive control: Frontoparietal network under phasic inhibition through the hyperdirect pathway.**

*Society for Neuroscience*, San Diego, CA, Nov 2022 [poster].

**Normativism in moral psychology.**

*Southern Society for Philosophy & Psychology*, Mobile, AL, Mar 2022.

*Eastern Division of the American Philosophical Association*, online, Jan 2022.

Graduate Workshop, Institute for Humane Studies, online, Mar 2021.

**Astrobiological reasons for climate change.**

*Rocky Mountain Ethics Congress*, Boulder, CO, Aug 2022.

**Metacognitive control in single- vs. dual-process theory.**

*Society for Judgment & Decision-Making*, online, Feb 2022 [poster].

*Southern Society for Philosophy & Psychology*, online, Dec 2020.

**A realist answer to the relevance question.**

*USC/UCLA Annual Graduate Conference*, UCLA, Los Angeles, CA, Mar 2019.

*Canadian Philosophical Association*, Université du Québec à Montréal, Montréal, QC, Jun 2018.

**Autonomy without a self.**

*Uehiro Graduate Philosophy Conference*, University of Hawaii at Manoa, Honolulu, HI, Mar 2018.

*Canadian Philosophical Association*, University of Calgary, Calgary, AB, May 2016.

**Metacognitivism.**

\*Graduate Workshop, *Institute for Humane Studies*, George Mason University, Fairfax, VA, Nov 2017.

*Morality, Moral Philosophy, & the Humanities in the Age of Neuroscience*, Kent State University, Kent, OH, Nov 2016.

**Anthropomorphism and anthropectomy as friendly competitors.**

\**Philosophy Graduate Conference*, York University, Toronto, ON, Apr 2016.

**An integrated theory of knowledge how.**

*Canadian Society for Epistemology*, Université de Montréal, Montréal, QC, Nov 2015.

**TEACHING****Assistant Professor** (all in-person courses at the University of Texas at El Paso)

Introduction to philosophy (fall 2025, spring 2026)

Seminar on philosophy of AI (spring 2026)

**Lead Graduate Instructor** (all online courses at the University of Arizona)

Law & morality (1 session: winter 2022)

Neuroethics (4 sessions: fall 2019–2022, winter 2021)

Consciousness & cognition (3 sessions: summer 2018, 2022, spring 2020)

Moral thought (2 sessions: winter 2019, spring 2021)

Ethics & economics (10 sessions: winter 2018; summer 2019–2022)

**Teaching Assistant** (all in-person courses)

Ethics & economics of wealth creation; Mario Villareal-Diaz (fall 2018)

Mind, matter, & God; Christopher Maloney (fall 2017, spring 2019)

Logic & critical thinking; Jonathan Weinberg (fall 2017)

Introduction to ethics; Julie Allen (summer 2017)

Introduction to philosophy; Alexandru Manafu (2016–2017)

## SERVICE

### Supervisor

Ibifuro Jaja, PhD philosophy, University of Erlangen-Nuremberg (Jan 2024–July 2024) (with Vincent C. Müller)

### Program committee

Area for Philosophy of Neuroscience/Psychology/Cognitive Science/AI, Philosophy of Science Association (PSA), San Diego (2026).

### Editing

Müller, V. C., Dung, L., Löhr, G., Rumana, A., (Eds.) (2025). *Philosophy of artificial intelligence: The state of the art*. Forthcoming at Synthese Library (Ed. Otávio Bueno). Berlin: Springer Nature.

### Organising

5<sup>th</sup> Biennial Conference on “*Philosophy of Artificial Intelligence*”, PAIR Centre, University of Erlangen-Nuremberg, Erlangen, Bavaria, Germany (Dec 2023) (with Vincent C. Müller, Leonard Dung, Guido Löhr)

### Volunteer lecturing

9<sup>th</sup> Pittsburgh Summer School, Center for Philosophy of Science, University of Pittsburgh (Jul 2025)

### Mentoring

Ibifuro Jaja, philosophy, PhD, University of Erlangen-Nuremberg (2024–present)  
Surraiya Baloch, philosophy, MA, University of Karachi (2022–2023)  
Shramana Pramanik, philosophy, MA, Jadavpur University (2022–2023)

**Editorial assistant** (with Mark Timmons), *Oxford Studies in Normative Ethics* (spring 2022, 2023)

**Research assistant** (with Muhammad Ali Khalidi), philosophy of memory research project (2015–2016)

## REVIEWING

### Journals

Philosophy of Science, Philosophical Studies, Synthese, Philosophical Psychology, Perspectives in Psychological Science, Minds & Machines, Phenomenology & the Cognitive Sciences

### Conferences

Philosophy of Science Association (PSA), Society for the Philosophy of Artificial Intelligence (SPAI), Southern Society for Philosophy & Psychology (SSPP), International Society for the Philosophy of Minds & Brain (ISPSM), Arizona Feminist Philosophy Graduate Conference

## REFERENCES

### Sara Aronowitz

(PhD supervisor)  
Associate Professor  
Department of Philosophy  
University of Toronto  
[s.aronowitz@utoronto.ca](mailto:s.aronowitz@utoronto.ca)

### Edouard Machery

(Postdoc supervisor)  
Distinguished Professor  
Director of the Center for Philosophy of Science  
Department of History & Philosophy of Science  
University of Pittsburgh  
[machery@pitt.edu](mailto:machinery@pitt.edu)

**Mark Timmons**  
(PhD co-supervisor)  
Professor  
Department of Philosophy  
University of Arizona  
[mtimmons@arizona.edu](mailto:mtimmons@arizona.edu)

**Kristin Andrews**  
Professor  
Department of Philosophy  
CUNY Graduate Center  
[andrewsk@yorku.ca](mailto:andrewsk@yorku.ca)

**Tom Christiano**  
(Graduate teaching supervisor)  
Professor & Department Head  
Department of Philosophy  
University of Arizona  
[thomasc@arizona.edu](mailto:thomasc@arizona.edu)