

Joshua Mendelsohn

Department of Philosophy, University of Chicago.
1115 E 58th St, Chicago, IL 60637
+1917-774-1978 | mendelsohn@uchicago.edu

Education

PhD, Philosophy, University of Chicago (defense scheduled February 2019)
Joint Program in Ancient Greek and Roman Philosophy
Two semesters as visiting student at New York University

Bachelor of Arts (Hons), Philosophy, University of Sydney (2011)
First class honours with university medal

Bachelor of Arts, University of Melbourne (2010)
Majors in Philosophy and German
Two semesters as visiting student at Ruprecht-Karls-Universität, Heidelberg

Bachelor of Science, University of Melbourne (2010)
Major in Mathematics and Statistics, specialising in Probability and Statistics

Areas of specialisation

Ancient Greek Philosophy, Medieval Philosophy, History and Philosophy of Logic

Areas of competence

Ethics, Epistemology, Philosophy of Language, 18th and 19th Century German Philosophy

Dissertation

Aristotle on the necessity of what we know

Dissertation committee: Martha Nussbaum (chair), Michael Kremer, Marko Malink,
Agnes Callard

Aristotle famously holds that we can only know what cannot be otherwise. This may seem to imply that we can only have knowledge of changeless mathematical truths and other products of *a priori* reflection. Yet Aristotle is a pioneer of natural science, and exhorts us to study the natural world, which he himself characterizes as a realm of change, exception and chance. My dissertation asks why Aristotle holds the view that we only know what cannot be otherwise and whether he is able to reconcile it with his engagement in and esteem for natural science. Properly understood, I argue, Aristotle's claim does not pose any threat to the possibility of natural science and in fact underwrites a robust conception of the study of nature.

Peer reviewed publications

2018 "The way past the stripping argument in Hegel and Aristotle", in *Hegel and Ancient Philosophy: A Re-Examination*. Edited by Glenn Magee. New York: Routledge.

2018 "Term Kinds and the Formality of Aristotelian Modal Logic", *History and Philosophy of Logic* 39. <https://doi.org/10.1080/01445340.2016.1247321>.

Non-peer reviewed publications

“*Epagōgē* and *sylogismos* in *Posterior Analytics* A1”, forthcoming in *Proceedings of the Aristotle World Congress held in Thessaloniki, 23–28 May, 2016*.

Translations (German-English)

Michael Quante. “The Logic of Essence as Internal Reflection”. In: *The Oxford Handbook of Hegel*. Edited by Dean Moyar. London: Oxford University Press, 2017.

Michael Quante, *Spirit's Actuality*. Paderborn: Mentis Verlag, forthcoming.

Werner Stark. “Kant’s Lectures on Anthropology: Some Orienting Remarks”. In: *Critical Guide to Kant’s Lectures on Anthropology*. Edited by Alix Cohen. Cambridge: Cambridge University Press, 2014.

Invited presentations

2014 *Metaphysics Z* and its medieval reception
Invited guest teacher for two sessions of a graduate seminar led by Alan Code at Stanford University, October 21 and 28.

Conference papers and selected presentations

- 2018 Robert Kilwardby on the relationship between logical theory and logical methodology
Medieval Logic and its Contemporary Relevance. University of St. Andrews, April 30–May 2.
- 2018 Comments on David Bronstein, “Is Plato an Innatist in the Meno?”
Learning and Teaching in Ancient Thought, University of Chicago, April 14.
- 2017 Aristotle’s argument for the necessity of what we know
The 2017 annual conference of the Australasian Association of Philosophy, University of Adelaide, July 2–6.
- 2017 Logic as an art, a science and a method
Wittgenstein Workshop, University of Chicago, February 10.
- 2016 The way past the stripping argument in Hegel and Aristotle
The twenty-fourth biennial meeting of the Hegel Society of America, Concordia University, November 4–6.
- 2016 Kosman contra Kant on Aristotle’s categories
Conference on the work of Aryeh Kosman, University of Leipzig, July 3.
- 2016 *Epagōgē* and *sylogismos* in *Posterior Analytics* A1 and *Prior Analytics* B23.
Aristotle World Congress, Aristotle University, Thessaloniki, May 28.
- 2016 *Epagōgē* as a way of grasping a syllogism
Reasoning and Inquiry in Ancient Philosophy, University of Chicago, May 20.
- 2015 Robert Kilwardby’s modal syllogistic
History of logic workshop, Stanford University, October 31.
- 2014 Two sorts of definition: Robert Kilwardby’s reading of *Posterior Analytics* I.4 and its ramifications for the modal syllogistic

Annual Marquette Summer Seminar in Ancient and Medieval Philosophy, June 23-25.

- 2013 Term kinds in Aristotelian modal logic
Linguistics and Philosophy Workshop, University of Chicago, November 22.
- 2012 Saving the formality of Aristotle's modal logic
International Symposium on Aristotle's Logic, Massey University, December 10.

Honours and awards

- 2017 Mellon Foundation-University of Chicago Dissertation Completion Fellowship
Competitively awarded a fellowship for a sixth year of stipend and tuition, as well as a research travel grant, to assist promising PhD students in completing their dissertation work and preparing their first scholarly works for publication.
- 2013 Floyd L. Moreland Scholarship
Competitively awarded by the Latin/Greek Institute at the City University of New York to take part in an immersive ten-week course in Ancient Greek language and literature.
- 2012 University of Chicago Fellowship
Competitive fellowship for five years of graduate study at the University of Chicago.
- 2011 University Medal, University of Sydney
Awarded for outstanding performance in a Bachelor course with Honours. Usually awarded to no more than one student per year in each department.
- 2011 John Anderson Prize, University of Sydney
Awarded for Philosophy Honours student with the best thesis of merit.
- 2011 Honours Scholarship, University of Sydney
Awarded for Honours study on the basis of academic merit and personal attributes such as leadership and creativity.
- 2010 Norma McArthur Prize, University of Melbourne
Awarded for best performance in senior level undergraduate statistics.
- 2007 Wyselaskie Prize, Ormond College
Awarded to a resident of the college upon valediction for contributing to the intellectual life of the college.

Teaching experience (sole instructor)

- 2018 Lecturer, University of Chicago
Elementary logic
A lecture and discussion course with students from high-school to graduate level.
- 2017 Lecturer, University of Chicago
Plato's Theory of Knowledge,
Small discussion course at the senior undergraduate level.

Teaching experience (as teaching assistant or similar)

- 2016 Teaching assistant, University of Chicago
Logic for Philosophy
- 2015 Teaching assistant, University of Chicago
Bayesian Epistemology
- 2014 Teaching assistant, University of Chicago
Meaning and Reference
- 2010 Academic assistant, Ormond College
Philosophy, Mathematics and Statistics
- 2009 Academic assistant, Ormond College
Philosophy, German

Academic service

- 2018 Reviewer for “Learning and Teaching in Ancient Thought”, 3rd Annual University of Chicago Graduate Student Conference in Ancient Philosophy
- 2016 Student organiser of the Philosophy Department’s visiting week for prospective students
- 2015 Student organiser of the Philosophy Department’s visiting week for prospective students
- 2015 Graduate student representative on University of Chicago search committee for a position in Ancient Greek and Roman Philosophy
- 2015 Graduate student coordinator of the weekly Ancient Greek and Roman Philosophy Workshop at the University of Chicago
- 2014 Co-organiser of “Aristotle’s Logic and Metaphysics”, a conference at the University of Chicago

Research languages

German: Fluent written and spoken
Ancient Greek: Advanced reading skills
Latin: Advanced reading skills
French, Italian: Basic reading skills

Graduate coursework

Ancient and Medieval Philosophy

- 2018 Aristotle’s *Metaphysics* M and N (E. Katz)*
- 2017 Roman Philosophers on the Fear of Death (M. Nussbaum)*
- 2017 Plato and Aristotle on Craft and Wisdom (G. Lear)*
- 2017 Topics in the Philosophy of Mathematics: Greek Mathematics (K. Davey)*
- 2016 Medieval Philosophy (J. Stern)*
- 2016 Plato’s *Philebus* (G. Lear)*
- 2016 Aristotle’s *Metaphysics* Book Z (M. Malink; NYU)*
- 2015 Socratic Intellectualism (A. Callard)*
- 2015 Imagination and Belief in Ancient and Early Modern Philosophy (J. Moss and D. Garrett; NYU)*
- 2015 Aristotle’s Logic (M. Malink; NYU)*

- 2014 Aristotle on Practical Wisdom (A. Müller)
- 2013 Aristotle's Theory of Science: *Posterior Analytics* I (M. Malink)
- 2013 Greek Tragedy and Philosophy (M. Nussbaum)
- 2012 Aristotle on Substance and Essence: *Metaphysics Zeta* (M. Malink)*
- 2011 Medieval Logic and Metaphysics (P. Thom)

Eighteenth and Nineteenth Century German Philosophy

- 2016 Transitions Into, Within, and From Hegel's *Science of Logic* (A. Koch)*
- 2014 Hegel's *Science of Logic*: The Logic of Essence (R. Pippin)
- 2014 Kant: *Critique of Pure Reason* (J. Conant)*
- 2013 Kant's Doctrine of Right (A. Ford & B. Laurence)
- 2013 Autonomy: Kant's Conception of the Essence of Morality (A. Müller)*
- 2013 Hegel's *Phenomenology of Spirit* (M. Forster)
- 2012 Herder's Philosophy (M. Forster)*
- 2011 Romanticism (P. Redding; University of Sydney)

Ethics and Practical Philosophy

- 2014 Practical Reason (S. Engstrom)
- 2014 Aristotle on Practical Wisdom (A. Müller)
- 2013 Kant's Doctrine of Right (A. Ford & B. Laurence)
- 2013 Autonomy: Kant's Conception of the Essence of Morality (A. Müller)*
- 2012 Freud and Philosophy (J. Lear)
- 2012 Habermas (J. Grumley; University of Sydney)*

Metaphysics

- 2013 Ontological Dependence (M. Malink & A. Schechtman)

Epistemology

- 2016 Advanced Introduction to Epistemology (D. Foley; NYU)*
- 2015 Topics in Epistemology (J. Pryor; NYU)*

Philosophy of Science

- 2013 Pragmatism and Philosophy of Science of C. S. Peirce (A. Vasudevan)
- 2012 The Philosophy of Probability (N. Smith; University of Sydney)*
- 2011 Advanced Philosophy of Science (P. Griffiths; University of Sydney)

Philosophy of Language

- 2012 Vagueness: its nature, its semantics, its logic (H. Kamp)

History of Analytic Philosophy

- 2011 Early Analytic Philosophy (D. MacArthur)

Classics

- 2018 Survey of Greek Prose (H. Dik)
- 2017 Roman Philosophers on the Fear of Death (M. Nussbaum)*
- 2017 Plato and Aristotle on Craft and Wisdom (G. Lear)*
- 2016 Plato's *Philebus* (G. Lear)*
- 2013 Greek Tragedy and Philosophy (M. Nussbaum)

*indicates an audit. Courses taken at the University of Chicago unless indicated.

References

Martha Nussbaum

Ernst Freund Distinguished Service
Professor of Law and Ethics
The Law School
University of Chicago
martha_nussbaum@uchicago.edu

Agnes Callard

Associate Professor of Philosophy
Department of Philosophy
University of Chicago
agcallard@uchicago.edu

Robert Bolton

Professor
Department of Philosophy
Rutgers University
rbolton@philosophy.rutgers.edu

Malte Willer (teaching reference)

Associate Professor of Philosophy
Department of Philosophy
University of Chicago
willer@uchicago.edu

Marko Malink

Associate Professor of Philosophy & Classics
Department of Philosophy
New York University
mm7761@nyu.edu

Michael Kremer

Michael Kremer
Mary R. Morton Professor of Philosophy
Department of Philosophy
University of Chicago
kremer@uchicago.edu

Elizabeth Asmis (language reference)

Professor of Classics
Department of Classics
University of Chicago
e-asmis@uchicago.edu

Dissertation Abstract*Aristotle on the necessity of what we know*

Aristotle's theory of science in his *Posterior Analytics* is premised upon what may seem an unpromising starting point: That all scientific knowledge is of necessities. While many philosophers still take mathematics to trade exclusively in necessary propositions, few philosophers or scientists today would take this to be true of the natural sciences like meteorology, chemistry and biology. Some have concluded on the basis of the preponderance of mathematical examples in the contexts where Aristotle makes this claim that he formulated his theory of science primarily with mathematics in mind and sought to extend it to other sciences as something of an afterthought. Others, in a related vein, see Aristotle's avowal of this position as a holdover from his early Platonism that he was still wresting himself free from in writing the *Posterior Analytics*. Even the growing number of scholars who take the theory of demonstration Aristotle develops in the *Posterior Analytics* to be geared towards his work in natural science tend to take him to revise the claim that scientific knowledge is of necessities in natural-scientific contexts.

My dissertation undertakes a careful study of Aristotle's position with respect to the necessity of scientific knowledge. By considering the context of passages in which Aristotle claims that what we know are necessities, and reconstructing his arguments for this claim, I show that Aristotle has distinctive and carefully elaborated reasons for his position, and that his claim is embedded in an interesting and perhaps even compelling epistemology and philosophy of science. While my dissertation does not aim at a full-fledged defense of Aristotle's view, it finds in Aristotle alternatives to contemporary positions in epistemology and the philosophy of science and argues that these merit serious consideration, and discovers these in parts of Aristotle that are frequently dismissed as having only historical interest. Far from being unexamined Platonic baggage, Aristotle's claim that what we know are necessities is part of an attempt to explain how scientific knowledge can have the reliability and stability we take it to have while being derived from and applicable to the mundane particulars of our experience. And rather than being evidence of a restriction of attention to mathematical sciences, Aristotle's claim stands at the heart of an interesting theory of the relationship between non-mathematical and mathematical sciences.

Specifically, I argue that Aristotle holds his view as a way to reconcile two theses about knowledge that stand in tension. On the one hand, Aristotle holds that for scientific knowledge to have the value we take it to have as a cognitive state, it must be possible for us to rely on it. This requires that we be able to employ scientific knowledge without needing, each time we wish to employ it, to check that the world is still as our knowledge represents it. This means, in Aristotle's technical vocabulary, that having scientific knowledge is a stable condition or "state" (*hexis*) like being virtuous, rather than a transient condition like being cold. In particular, Aristotle infers that we never lose knowledge unless we suffer cognitive harm (such as an injury resulting in permanent cognitive impairment) or cognitive deterioration (such as severe memory loss).

Yet Aristotle also holds that all knowledge, including scientific knowledge, is a *dependent* mental state. A mental state is *dependent* if it requires that the world really is, and remains, as this mental state represents it in order for it to continue to be a mental state of that kind. In the case of knowledge, this means that a given instance of knowledge only continues to count as knowledge if the world remains as the knower takes it to be. If I know, for example, that Socrates is sitting, then I retain this knowledge only so long as the state of affairs I know continues to hold over time – only so long as Socrates stays in his seat. Aristotle codifies this idea by placing knowledge in the category of relatives (*pros ti*). Knowledge is essentially "of" something in the sense that it depends, for its continued existence, on the continued holding of some state of affairs.

Now, if someone could have scientific knowledge of a changeable state of affairs like Socrates' sitting, then the fact that this knowledge is *dependent* would contradict the claim that this piece of knowledge is *stable* in the sense described above. Rather than rejecting either the claim that knowledge is dependent or that it is stable, Aristotle infers that we cannot have scientific knowledge of a changeable state of affairs like Socrates's being seated. Dependency and durability together entail that we cannot have scientific knowledge of any state of affairs that is not eternally true.

What, then, does the scientist know, if not changeable states of affairs? Aristotle resists drawing as a moral that we have knowledge only about unchanging Forms rather than the mundane particulars of our experience. Instead, he endeavors to explain how ordinary objects can be the subjects of necessary truths, and thus how we can have scientific knowledge about the perishable world. The key to Aristotle's explanation is the notion of *qua*-predication. While, for Aristotle, the state of affairs that I, *qua* individual, am alive will cease to be true when I die, the fact that I, *qua* human, am alive remains true eternally even after my death. For whereas the former is made true by a fact about *me* and hence depends on my continuing existence for its continuing truth, the latter is made true by a fact about what it is for me to be human. Part of what it is to be human is to be alive, and the fact that being alive is part of what it is for me to be human does *not* require me to stay alive for it to stay true. Although he holds that both statements are properly speaking statements *about* me, Aristotle thus denies that the latter requires my, or any other individual's, continued existence for its continuing truth. Instead, it is grounded in what Aristotle calls a "simple" truth: A truth that does not depend on the combination or division of objects and properties.

Understood in this way, Aristotle's view does not pose any threat to the study of biology and other "soft" sciences. All sciences, on Aristotle's view, study sensible objects in abstraction from their particularity. As a result, they have as their primary objects abstractions that have the features they have of necessity. But since these abstractions are abstractions *of* particular sensible objects, our grasp of abstractions allows us to intelligently interact with and make judgments about sensible particulars with contingent properties. The natural sciences differ from the mathematical sciences not in that they study concrete objects *rather* than abstractions, but in that they do not abstract from all ways that objects in their domain may change. Rather than conceiving of natural sciences as "empirical" and mathematical sciences as "non-empirical", then, Aristotle takes both natural and mathematical sciences to refer to features of the objects of our experience, but to differ in the type of abstraction they perform on these objects. There is, for Aristotle, no such thing as a purely "empirical" or purely "non-empirical" science. Any systematic knowledge of reality involves, for Aristotle, both a rational pole, in which we isolate the changeless and universal features of some domain, and an experiential pole, in which we apply our universal knowledge to the particulars from which we originally abstract it.