

Ann-Sophie Barwich**Full Curriculum Vitae**

01/15/2021

**CONTACT
INFORMATION
(PROFESSIONAL)**

Department of History and Philosophy of Science and Medicine
Ballentine Hall 917
Indiana University Bloomington, IN 47406
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Web smellosophy.com

RESEARCH

Empirical Philosophy specializing in Science and Perception (Neuroscience and Biology); Cognitive and Sensory Science

EMPLOYMENT

2019 – Present

Indiana University Bloomington, USA
Assistant Professor; Department of History and Philosophy of Science and Medicine, and Cognitive Science Program

2018 – 2019

Indiana University Bloomington, USA
Visiting Assistant Professor; Cognitive Science Program

2015 – 2018

Columbia University in the City of New York, USA
Presidential Scholar in Society and Neuroscience; Center for Science and Society (Departments of Philosophy and the Biological Sciences)
Project: “From the Air to the Brain: Laboratory Routines in Olfaction.”
Mentors: Stuart Firestein (Neuroscience); Christopher Peacocke (Philosophy)

2013 – 2015

Konrad Lorenz Institute for Evolution and Cognition Research, Austria
Postdoctoral Research Fellowship
Project: “Scenes of Scientific Discovery: Modeling the Olfactory Mechanism at the Intersection of Experimental, Technological, and Conceptually Driven Analysis.”
Mentor: Werner Callebaut

EDUCATION

2010 – 2013

University of Exeter, UK
Ph.D., Philosophy
Dissertation: “Making Sense of Smell: Classifications and Model Thinking in Olfaction Theory.”
Supervisors: John Dupré; Michael Hauskeller
Examiners: Hasok Chang (external, Cambridge); Sabina Leonelli (internal)

2003 – 2009

Humboldt University at Berlin, Germany
Magister Artium (MA), German Literature Studies and Philosophy
Thesis: “Compossibilis. Leibniz’ Kausalitätskonzept als heuristische Quelle für Entwicklungsfragen in der modernen Biologie.”

PUBLICATIONS

- Book **2020.** *Smellosophy: What the Nose tells the Mind.* Harvard University Press.
 Translation: [Korean](#)
 Audiobook: [English](#)
 Reviewed in: [Science](#), The Wallstreet Journal ([WSJ](#)), Times Literary Supplement ([TLS](#)), [Harper's](#) Magazine, The [Spectator](#), [la Repubblica](#), [De Standaard](#)
 Listed: best non-fiction books [NRC](#), [The Telegraph](#)'s Best Wine Books
 Radio discussion: [Radio 1](#) (Belgium)
- Journal Articles **2021.** "Imaging the living brain: An argument for ruthless reductionism from olfactory neurobiology." *Journal of Theoretical Biology* 512: <http://doi.org/10.1016/j.jtbi.2020.110560>.
- 2021** (Open Access). Kurian, S.M., Naressi, R.G., Manoel, D., [Barwich, A.S.](#), Malnic, B. and Saraiva, L.R., 2020. "Odor coding in the mammalian olfactory epithelium." *Cell and Tissue Research*: <http://doi.org/10.1007/s00441-020-03327-1>.
- 2020.** [Barwich, A.S.](#) and M. Rodriguez. "Fashion fades, Chanel No.5 remains: Epistemology between Style and Technology." *Berichte zur Wissenschaftsgeschichte* (History of Science and Humanities): doi.org/10.1002/bewi.202000006.
- 2020.** "What makes a discovery successful? The story of Linda Buck and the olfactory receptors." *Cell* 181(4): 749-753.
- 2019** (Open Access). "The Value of Failure in Science: The Story of Grandmother Cells in Neuroscience." *Frontiers in Neuroscience*. <https://doi.org/10.3389/fnins.2019.01121>
- 2019** (Open Access). "A Critique of Olfactory Objects." *Frontiers in Psychology*. doi: 10.3389/fpsyg.2019.01337
- 2018** (Open Access). "How to be Rational about Empirical Success in Ongoing Science: The Case of the Quantum Nose and its Critics." *Studies in History and Philosophy of Science* 69: 40-51.
- 2017.** With K. Bschrir. "The Manipulability of What? The History of G-Protein Coupled Receptors," *Biology & Philosophy* 32(6): 1317–1339.
- 2017.** "Up the Nose of the Beholder? Aesthetic Perception in Olfaction as a Decision-Making Process," *New Ideas in Psychology* 47: 157-165.
- 2016.** "Making Sense of Smell," *The Philosophers' Magazine* 73, 41-47.
- 2015.** "What is so special about smell? Olfaction as a model system in neurobiology," *Postgraduate Medical Journal* 92: 27-33.
- 2015.** With H. Chang. "Sensory Measurements: Coordination and Standardization," *Biological Theory* 10 (3): 200-211.

2015. “Bending Molecules or Bending the Rules? The Application of Theoretical Models in Fragrance Chemistry,” *Perspectives on Science* 23 (4): 443-465.

2014. “A Sense So Rare: Measuring Olfactory Experiences and Making a Case for a Process Perspective on Sensory Perception,” *Biological Theory* 9 (3): 258-268.

2013. “Science and Fiction: Analysing the Concept of Fiction in Science and its Limits,” *Journal for General Philosophy of Science* 44 (2): 357-373.

2013. “A Pluralist Approach to Extension: The Role of Materiality in Scientific Practice for the Reference of Natural Kind Terms,” *Biological Theory* 7 (2): 100-108.

Book Chapters

2021 (Forthcoming). Bickle, J., and A.S. Barwich. ““An Introduction to Molecular and Cellular Cognition.” In: *Mind, Cognition, and Neuroscience: A Philosophical Introduction*, ed. by B. D. Young & C. Dacey Jennings. Routledge, Chapter 3.

2018 (Open Access). “Measuring the World: Towards a Process Model of Perception,” in: *Everything Flows: Towards a Processual Philosophy of Biology*, ed. by D. Nicholson, and J. Dupré. Oxford University Press, pp. 337-356.

2018. “Is Captain Kirk a natural blonde? Do X-Ray crystallographers dream of electron clouds? Comparing model-based inferences in science and fiction,” in: *Thinking about Science and Reflecting on Art: Bringing Aesthetics and the Philosophy of Science Together*, ed. by Steven French, Otavio Bueno, and Dean Rickles. Routledge, 62-79.

2014. “Fiction in Science? Exploring the Reality of Theoretical Entities,” in: *Defending Realism: Ontological and Epistemological Investigations. Proceedings of the International Conference*, ed. by Guido Bonino, Javier Cumpa and Greg Jesson. De Gruyter, 291-309.

2006. “Das Wundenmotiv in Tolkiens ‘Der Herr der Ringe’ unter dem Blickwinkel der traumatischen Erfahrung,” in: *Inklings. Jahrbuch für Literatur und Ästhetik*. Bd. 24, ed. by D. Petzold. Brendow.

In Preparation/

Under Revision

Barwich, A.S., and B. C. Smith. “Molecules to Mind: Introduction to the Philosophy of Olfaction.” *Philosophy Compass*

“Between Electrical Light Switches and Panpsychism: On Scientism and the role of the Humanities in the 21st Century” In: *Scientism: For and Against* (Collective Studies in Knowledge and Society Book Series), ed. by Moti Mizrahi and Jim Collier. Rowman & Littlefield.

Essay on Women in the History of Philosophy of Science. Aeon

With T. Acree, K. Ding, and X. Zeng. “Attention is nothing but Perception: Evidence For Perceptual Cycling In Sniff Olfactometry Data.”

Digital Edition

2020. “Sleight of Hand in Ms. Fr. 640, fols. 33r-36r, 43v.” Critical online publication of *The Making & Knowing Project*, ed. by Pamela H. Smith.

- Editorials **2012.** With S. Leonelli. "Editorial," *The Reasoner* 6 (3).
- Book Reviews **2021** (Forthcoming). "Shiner, Larry. *Art Scents: Exploring the Aesthetics of Smell and the Olfactory Arts*. Oxford University Press, 2020." *Perception*.
- 2021** (Forthcoming). "Sousanis, Nick. *Unflattening*. Harvard University Press, 2015." *The British Journal for the Philosophy of Science – Book Reviews*.
- 2019.** "Anil Gupta. *Conscious Experience*." *Philosophia*.
- 2015.** "Astrid Schwarz. *Experiments in Practice (History and Philosophy of Technoscience 2.)*." *Isis* 106 (4): 898-899.
- 2010.** "Leibniz-Forschungsstelle der Universität Münster (Ed.) Gottfried Wilhelm Leibniz. *Philosophischer Briefwechsel*, Bd. 1: 1663–1685, Bd. 2: 1686–1694." In: *Zeitschrift für Germanistik* 3: 675-677.
- 2007.** "Arbeitsgemeinschaft Literarischer Gemeinschaften und Gedenkstätten E.V. (Ed.): *Literatur vor Ort. Literarische Gesellschaften, Museen und Gedenkstätten*." In: *Zeitschrift für Germanistik* 3.
- Conference Reports **2013.** With T. Baetu, D. Brooks, S. Dutreuil, and P. Germain. "Model Thinking in the Life Sciences: Complexity in the Making, Second European Advanced Seminar in the Philosophy of the Life Sciences, 'In Vivo, ex Vivo, in Vitro, in Silico: Models in the life sciences' Hermance, Switzerland, 10–14 September 2012." *Biological Theory* 8 (1): 121-124.
- 2011.** With A. Amilburu. "Bridging Disciplines? An Enquiry on the Future of Natural Kinds in Philosophy and the Life Sciences." *Biological Theory* 6 (2): 187-190.
- Science Communication
(Essays / Blogposts)
- 2020 – Present.** Blog at Psychology Today "Molecules to Mind" → <https://www.psychologytoday.com/us/blog/molecules-mind>
- 2020.** "What Did the Past Smell Like?" (Get a whiff of a new sensory experience in history) Nautilus → <https://nautil.us/issue/93/forerunners/what-did-the-past-smell-like>
- 2020.** "Our Mind-Boggling Sense of Smell" (How your brain identifies an aroma from its minute molecular traces is a marvel). Nautilus → <https://nautil.us/issue/91/the-amazing-brain/our-mind-boggling-sense-of-smell>
- 2020.** "How to change your mind - over a glass of wine" (Becoming an expert in anything, whether it's wine tasting or mathematics, changes the way you perceive the world) Neo.Life → <https://neo.life/2020/09/how-to-change-your-mind-over-a-glass-of-wine/>
- 2020.** "Mind your Nose" (How smell training can change your brain in six weeks—and why it matters) Neo.Life → <https://neo.life/2020/08/mind-your-nose/>

2020. “Going viral: What Covid-19-related loss of smell reveals about how the mind works” STAT NEWS → <https://www.statnews.com/2020/08/14/covid-19-related-smell-loss-reveals-how-the-mind-works/>

2020. "It's hard to fool a nose. (Why might it be easier to fool your eyes than your nose?)" Aeon → <https://aeon.co/essays/why-might-it-be-easier-to-fool-your-eyes-than-your-nose>

2018. “The Cinderella of the Senses: Smell as a Window into Mind and Brain?” iCog blog. <http://icog.group.shef.ac.uk/the-cinderella-of-the-senses-smell-as-a-window-into-mind-and-brain/>

2017. Blog post “Is Smell an Aesthetic Sense?” *Imperfect Cognitions*. <http://imperfectcognitions.blogspot.com/2017/07/is-smell-aesthetic-sense.html>

2017. Blog post “Making Sense of Scents: The Science of Smell” *Auxiliary Hypotheses* | *The BJPS Blog*. <http://thebjps.typepad.com/my-blog/2017/01/making-sense-of-scents-the-science-of-smell-ann-sophie-barwich.html>

Popular & Media

(Interviews/ Podcasts/Webinars)

2020. Podcast “Nous” (Ilan Goodman "AS Barwich on the Neurophilosophy of Smell" → <https://nousthepodcast.libsyn.com/as-barwich-on-the-neurophilosophy-of-smell>

2020. Irish Radio: “The Culture File debate” (with other guests: Harold McGee, Matthew Cobb, Meabh Mc Curtin, Aleesa Cohene): <https://soundcloud.com/soundsdoable/the-culture-file-debate-dec>

2020. YouTube interview on Smellosophy with “The Dissenter” (Ricardo Lopez) / Episode 411 → <https://www.youtube.com/watch?v=9RRkmxoB2Wc>

2020. “What the nose tells the mind” RNZ New Zealand → <https://www.rnz.co.nz/national/programmes/ninetoon/audio/2018775329/what-the-nose-tells-the-mind>

2020. Webinar Being Human in Conversation "Returning to Our Senses" (video) -- With Barry C. Smith and Chrissi Kelly (AbScent) → <https://beinghumanfestival.org/event/being-human-in-conversation-returning-to-our-senses/>

2020. Webinar "Eat Prey Run: Zombie Food Preferences" ZAMApocalypse / with Peter Todd → <https://www.youtube.com/watch?v=BeFIUfw2R54&feature=youtu.be>

2020. WFIU Profiles → <https://indianapublicmedia.org/profiles/philosopher-and-historian-of-science-ann-barwich.php>

2020. Podcast "All in the Mind" with Lynne Malcolm - A love letter to Smell (ABC / Australian Broadcasting Corporation) → https://www.standaard.be/cnt/dmf20200904_97571859

2020. Podcast "New Books in Philosophy" - New Books Network with Carrie Figdor → <https://newbooksnetwork.com/ann-sophie-barwich-smellosophy-what-the-nose-tells-the-mind-harvard-up-2020-2/>

2020. Podcast "New Books in Neuroscience" - New Books Network with Joseph Fridman → <https://newbooksnetwork.com/ann-sophie-barwich-smellosophy-what-the-nose-tells-the-mind-harvard-up-2020/>

2020. Webinar "Abscent" with Chrissi Kelly → <https://www.youtube.com/watch?v=kKwclfM7kkU>

2020. Podcast "Her" with Dr. Pamela Peeke / Radio MD → <https://www.stitcher.com/show/her-radio/episode/why-smell-is-critical-to-your-well-being-77435667>

2020. Podcast "Mindscape" with Sean Carroll (Episode 105) → <https://www.preposterousuniverse.com/podcast/2020/07/13/105-ann-sophie-barwich-on-the-science-and-philosophy-of-smell/>

2020. Interview with The Smell Podcast (episode 63) → <https://podcasts.apple.com/us/podcast/episode-63-an-interview-with-dr-ann-sophie-barwich/id1429270582?i=1000475783506>

2020. YouTube interview on Philosophy of Science with The Dissenter (Ricardo Lopez) / Episode 337 → <https://www.youtube.com/watch?v=gpkNIDy9Vw0>

2020. Podcast Counterpoint "Shock and Smells" with Amanda Vanstone, ABC/Australian Broadcast Corporation) (at 35 mins) → <https://www.abc.net.au/radionational/programs/counterpoint/20-04/12158258>

2020. Interview with "What it's like to be a Philosopher" (Clifford Sosis) → <http://www.whatisitliketobeaphilosopher.com/#/annsophie-barw/>

2019. Interview with *PhilInBioMed* about Philosophy of Science. https://www.philinbiomed.org/wp-content/uploads/2019/12/PBM_Mag_Dec.pdf

2018. Podcast Interview with Super Awesome Science Show on "Smells of the Season." <https://omny.fm/shows/super-awesome-science-show/sass-ep6-smells-final-rough>

2018 (October 16). Interview with *SCI PHI Podcast* (online by the end of October). <http://www.sciphipod.com/podcast/2018/10/15/episode-48-ann-sophie-barwich>

2018 (June 8). Interview in the online magazine *Fatherly*: "Why Preteens Smell Bad as Puberty Gets Started." URL= <https://www.fatherly.com/health-science/why-preteens-smell-bad-puberty/>

2017. Podcast about the senses on *Tell Me Something I Don't Know*. <http://tmsidk.com/2017/10/senses/>

2017 (November 10). Interview in the online magazine *Fatherly*: "The Importance of Playing with A Child's Sense of Smell A smell researcher on why playing with a kid's sense of smell can help develop their taste and language." <https://www.fatherly.com/parenting/importance-playing-childs-sense-smell/>

2017 (May 11). Interview in the online magazine *Fatherly* about a publication on the human sense of smell in *Science*. <https://www.fatherly.com/health-science/myth-humans-poor-sense-smell-debunked/>

2017 (April 11). Interview in *Inside Science* on a study on computing odor images. <https://www.insidescience.org/news/do-you-smell-what-i-smell>

Online Lectures

2018. Presentation: “The Science of Smell: Field(work) without a Discipline,” Presidential Scholars in Society and Neuroscience Research Symposium, Columbia University, April 30

URL=<https://www.youtube.com/watch?v=TIY2Ub9CTUM&index=2&list=PLSYL9MBIDfZRiMXRzMbWY-N8TwoAuC9TA>

2017. Presentation: “The Science of Smell: A Philosophical Study at the Bench,” Presidential Scholars in Society and Neuroscience Research Symposium, Columbia University, February 13

URL= <https://youtu.be/fBwNqf8BHsg>

2017. Organizer & moderator: “The Human Sense of Smell,” Seminars in Society and Neuroscience, Columbia University, New York, April 13
Speakers: Barry Smith (University of London), Clare Batty (Kentucky), Donald Wilson (NYU), Avery Gilbert (smell scientist & author), Christophe Laudamiel (DreamAir, perfumer)

URL= https://youtu.be/DYO45ERk_3Q

2015. Presentation: “Olfaction as a model system for neurobiology: GPCRs and Mapping Smells in the Brain,” Center for Bits and Atoms, MIT (Mershin Lab), December 9

URL=<https://www.youtube.com/watch?v=ej45lyl3rza&t=863s>

2015. Organizer & moderator: “Understanding Cognition through Development: What Do Animals, Children, and Science Have in Common?” Seminars in Society & Neuroscience, Columbia University, November 2

Speakers: Kristin Andrews (York), Diana Reiss (Columbia), Peter Gordon (Columbia)

URL= <https://www.youtube.com/watch?v=pit-HYsksUo>

RESEARCH EXPERIENCE

- | | |
|-------------|--|
| 2012 – 2013 | Research Assistant , The Centre for the Study of the Life Sciences, University of Exeter, supervisor: Christine Hauskeller |
| 2008 – 2009 | Student Research Assistant , University Collections Project, Helmholtz-Zentrum für Kulturtechnik, HU Berlin, supervisor: Cornelia Weber |
| 2008 – 2009 | Student Research Assistant , Department of German Literature, HU Berlin, supervisor: Lutz Danneberg |

- 2008 **Student Assistant**, Berlin-Brandenburg School for Regenerative Therapies, Charité Berlin
- 2007 **Internship**, Berlin-Brandenburgische Akademie der Wissenschaften; Project “Functions of Consciousness”
- 2006 – 2007 **Internship**, Journal *Zeitschrift für Germanistik*

TEACHING

- 2020 – 2021 **Course Director**. Indiana University Bloomington
- Cognitive Science Program: 2 courses, (*Philosophical Foundations of Cognitive Science* (undergraduate Fall 2020; graduate Spring 2021)
 History and Philosophy of Science (Spring 2021): 1 course, *Pluralism in Scientific Practice* (senior undergraduate + graduate)
 Human Biology Program (Fall 2020): 1 course, *The Intricate Human, Sense Perception: Biology and Culture* (undergraduate), co-taught with Prof. Jutta Schickore
- 2019 – 2020 **Course Director**. Indiana University Bloomington
- Cognitive Science Program: 2 courses, (*Philosophical Foundations of Cognitive Science* (undergraduate Fall 2019; graduate Spring 2020)
 History and Philosophy of Science (Fall 2019): 1 course, *The Brain. Science and Philosophy* (undergraduate)
 Human Biology Program (Spring 2020): 1 course, *The Intricate Human, Sense Perception: Biology and Culture* (undergraduate), co-taught with Prof. Jutta Schickore
- 2018 – 2019 **Course Director**. Indiana University Bloomington; Cognitive Science Program
 Fall (1 course): *Brain & Cognition* (undergraduate)
 Spring (2 courses): *Philosophical Foundations of Cognitive Science* (undergraduate; graduate)
- Fall 2016 & 2017 **Course Director**. Co-taught with Stuart Firestein, Columbia University; Departments of Philosophy, History, and Biological Sciences (cross-listed)
 Fall (1 course): *Scientific Pluralism in Practice: Readings in the History and Philosophy of Science*
- Spring 2016 **Guest Lecturer**, MIT
 Co-taught with Andreas Mershin, *Making Sense of Scent*, January 27
- 2012 **Graduate Teaching Assistant**, University of Exeter; Philosophy
 Spring: *Knowledge and Reality*, Michael Hauskeller (Course Director)
 Fall: *Philosophy of Nature*, Jaime Navarro (Course Director)
- 2011 **Graduate Teaching Assistant**, University of Exeter; Philosophy
 Fall: *Philosophy of Nature*, Staffan Müller-Wille (Course Director)

2007 – 08 *Undergraduate Teaching Assistant*, Humboldt University; Philosophy
Fall: *Practical Philosophy*, Oswald Schwemmer (Course Director)

AWARDS & GRANTS

2019 Teaching Grant (with Jutta Schickore): Summer Instructional Development
Fellowship for HUBI200, Indiana University Bloomington

2017 Teaching Grant: Course Development in Science and Society, Center for Science
and Society at Columbia University, for *Scientific Pluralism in Practice:
Readings in the History and Philosophy of Science*, co-taught with Stuart
Firestein (cross-listed at the Departments of Philosophy, History, and the
Biological Sciences)

2013 – 2015 Honorary Research Fellow, Egenis (The Centre for the Study of the Life
Sciences), University of Exeter

2011 – 2012 Postgraduate Fellowship: College of Social Sciences and International Studies,
University of Exeter

PRESENTATIONS

Invited Papers

2020 “Better than we think? The Sense of Smell as a Model for Theories of
Perception,” Leibniz University Hannover (virtual), Institute of Philosophy,
Colloquium talk (invited by Matthias Frisch), July 7
“The Sense of Smell as a Model for Theories of Perception ,“ Philosophy in the
Library, Brooklyn Public Library (virtual), October 21
"Minding the Nose: More than meets the AI ?" Ben-Gurion University,
Zlotowski Center for Neuroscience, December 14

2019 “When your data requires new theory: A novel behavioral measure of olfactory
responses (and its challenges).” Workshop: Measurement in Cognitive Science;
organized by Insa Lawler (Bochum) and Edouard Machery (Pittsburgh);
University of Bochum, June 4- 6.
“The Cinderella of the Senses: Smell as a Window into Mind and Brain?”, The
Centre for the Study of the Senses, School of Advanced Study, University of
London, May 1.
“The Cinderella of The Senses: Smell as a Window into Mind & Brain,” Purdue
University, Department of Philosophy, January 22.

- “The Cinderella of The Senses: Smell as a Window into Mind & Brain,”
Carnegie Mellon, Department of Philosophy, January 14.
- 2018 “The Odor of Things: The Sense of Smell as a New Model for Studies of Mind
and Brain,” University of Exeter, February 8
- “The Odor of Things: The Sense of Smell as a New Model for Studies of Mind
and Brain,” San Francisco State University, January 18
- Commentator “Smells as Secondary Qualities,” APA Eastern Division Meeting
(American Philosophical Association), Savannah, GA, January 3-6
- 2017 “Olfaction as a Model for Neuroscience: How Your Brain Is Making Scents –
And Why It Matters.” Department of History and Philosophy of Science, Indiana
University Bloomington, Nov 9
- “What are Odors: Qualitative Objects or Qualitative Relations?” UK
Semiocchemistry Network Workshop, Cambridge, July 18-19
- “Scent Track: What can the History of Olfaction tell us about Theorizing in the
Life Sciences?” New York City History of Science Consortium Lecture Series,
April 26
- “Smell as a Model System. A Philosophical Study at the Bench.” (Talk in honor
of Maria Inés Velazco), Firmenich SA, Princeton NJ, March 23
- 2016 “Whatever the Method? PCR and the Discovery of the Olfactory Receptors,”
Many Methods – One Biology, Center for Advanced Studies, Ludwig
Maximilians University Munich, October 20-22
- “Philosophy at the Bench: Olfaction as a Model System for Neurobiology,”
Neuroscience Institute Special Seminar, NYU Langone Medical Center (Rinberg
Lab), July 27
- “Imagine there is a controversy and no one participates: Philosophical failures in
science narratives” Model(ing) Controversies in Science, National University of
Singapore, March 15 & 17
- “Olfaction as a modern experimental system: a philosophical study at the bench”,
New York Medical College, February 3
- 2015 “Olfaction as a model system for neurobiology: GPCRs and Mapping Smells in
the Brain,” Center for Bits and Atoms, MIT (Mershin Lab), December 9
- “Why we need to think about Failure in Science,” University of Bristol,
Department of Philosophy, December 2
- “Success is not equal to progress: Why Failure is integral to Science,” Wagner
Conference 2015, University of Reno, November 12-14

- 2014 “Evo-Devo and Olfaction: Developing Process Categories for Perception,” Process Philosophy of Biology, Egenis (Centre for the Study of the Life Sciences), University of Exeter, November 20-21
- “How Philosophy matters to Science (And why you shouldn’t listen to philosophers. Talk to them.)” Firestein Laboratory, Columbia University, November 12
- “Is Captain Kirk a natural blonde? The limits of fiction and what they can tell us about modeling in science,” Philosophy of science and aesthetics conference, University of Leeds, September 5-6
- “The Standard Observer: Humans as Measurement Instruments for the Quantification of Qualities. The Case of Olfaction as a Diagnostic Tool for Neurodegenerative Diseases.” Quality & Quantity: Limits of Quantification in the Sciences (30th Altenberg Workshop in Theoretical Biology), Konrad Lorenz Institute for Evolution and Cognition Research Institute, June 11-14
- 2013 “Modelling Evidence: Theory Assessment in Olfactory Research,” Konrad Lorenz Institute for Evolution and Cognition Research, March 21

Symposia

2020. “Reductionism in the living brain, not as difficult as you think,” part of the Symposium “Tools before Theories? Three Perspectives from Different Fields of Neuroscience” (with John Bickle, Eric Hochheim and Joseph McCaffrey, Nedah Nemaï), Southern Society for Philosophy and Psychology (SSPP), University of Kentucky (virtually hosted by Harvard University), December 5
- Accepted but cancelled because of COVID • “Imaging the living brain: Reductionism past the resting state,” part of the Symposium “ ‘Sometimes you can observe a lot by watching’: Imaging individual neurons” (with John Bickle and Lauren Ross), 8th Biennial Conference of the Society for Philosophy of Science in Practice at Michigan State University (SPSP)
- 2017 Organizer & moderator: “The Human Sense of Smell,” Seminars in Society and Neuroscience, Columbia University, New York, April 13
 Speakers: Barry Smith (University of London), Clare Batty (Kentucky), Donald Wilson (NYU), Avery Gilbert (smell scientist & author), Christophe Laudamiel (DreamAir, perfumer)
 URL= https://youtu.be/DYO45ERk_3Q
- 2015 Organizer & moderator: “Understanding Cognition through Development: What Do Animals, Children, and Science Have in Common?” Seminars in Society & Neuroscience, Columbia University, November 2
 Speakers: Kristin Andrews (York), Diana Reiss (Columbia), Peter Gordon (Columbia)
 URL= <https://www.youtube.com/watch?v=pit-HYsksUo>

Organizer & Speaker: “Failure in Science,” Ishpssb (The International Society for the History, Philosophy, and Social Studies of Biology), UQAM, Montreal, July 5-10

Stuart Firestein (Columbia): “Explicit failure”

Isabella Sarto-Jackson (KLI): “Intrinsic hidden constraints in data-intensive biology”

Ann-Sophie Barwich (KLI): “Simply” failure or delayed success?

Mapping smells in the brain”

Selected Papers

- 2020 “How Biology perceives Chemistry: Smells as Environmental Kinds,” Philosophy and Neuroscience at the Gulf III (virtual), October 9
- “Imaging the living Brain: Reductionism revisited in times of dynamical systems” *Tools and Technology in Neuroscience*; Center for Philosophy of Science, University of Pittsburgh, January 24
- 2019 “Imaging the living Brain: Reductionism revisited in times of dynamical systems” *Tool Development in Experimental Neuroscience: A Science-in-Practice Workshop*, Hilton Pensacola Beach, Pensacola Beach, FL, September 28, 2019
- 2018 “Technologies of Taste,” Panel at the 2018 HSS Annual Meeting (History of Science Society), Seattle, Nov 1-4,
 “The Nose as a Window to the Mind,” Invited Speaker at the 40th meeting of AChemS (Association for Chemoreception Sciences); Symposium: “Back to the Future: From Past discoveries to Future Directions,” Bonita Springs, Florida, April 18-21, 2018 (Co-panelists: Gordon Shepherd, Linda Bartoshuk, Stuart Firestein).
- 2016 “The Imitation Game: What does ‘Recognition’ in Mechanisms of Molecular Recognition mean?” Philosophy of Science Association, Atlanta, November 3-5
- “Fashion Fades, Only Chanel No. 5 Remains the Same: A Chemical History of Style and Technology,” ISPC2016 (20th Annual Meeting of the International Society for the Philosophy of Chemistry), Florida Atlantic University, August 1-4
- With D. Bilak. “Vials and Vinaigrettes: The Manipulation of Odour in 18th-century French Science and Society,” Dutch-Belgian Society of Eighteenth-Century Studies Annual Conference-Conference ‘Flavours of the Eighteenth Century,’ Brussels, March 10-11
- With K. Bschrir. “Manipulability and Entity Realism in Wet-Lab Research: The Story of G-Protein Coupled Receptors,” *The History of Science and Contemporary Scientific Realism*, Indiana University-Purdue University, February 19-21
- 2015 With K. Bschrir. “Reality as a relational property: The story of G-protein coupled receptors,” EPSA (European Philosophy of Science Association), Center for Logic and Philosophy of Science, Heinrich Heine University Düsseldorf, September 23-27

- “The Problem of Co-ordination \neq The Problem of Standardisation: What Sensory Measurement Is (Not),” The Making of Measurement, University of Cambridge, July 23-24
- 2014 “A Fine Nose for Timeliness: The Discovery of the Olfactory Receptors and the Question of Novelty,” Philosophy of Science Association, Chicago, November 6-9
- “Sensing the Unknown: Historicising the Discoverability of the Olfactory Receptors within the Life on an Experimental System,” Integrated History and Philosophy of Science 5 (&HPS5) conference, University of Vienna, June 26-28
- “The Discovery of the Olfactory Receptors and the Question of Novelty,” Philosophy of Science Conference, Dubrovnik, April 14-19
- “What would MacGyver do? Experimental Tools and the Discovery of the Olfactory Receptors,” Philosophy of Biology in the UK, University of Cambridge, March 30-April 1
- 2013 “If you can spray them, then they are real: Evidence Construction in Fragrance Chemistry,” Ishpssb (The International Society for the History, Philosophy, and Social Studies of Biology), Montpellier, July 7-12
- “The Application of Theoretical Models and Strategies of Evidence Construction in Fragrance Chemistry,” The British Society for the Philosophy of Science (BSPS), University of Exeter, July 4-5
- 2012 “Making Sense of Smell: Models in Olfaction Theory,” Ex vivo, in vivo, in vitro, in silico: Second Advanced Seminar in the Philosophy of the Life Sciences, Brocher Foundation, Geneva, September 10-14
- “The Scientification of Scent: Modeling the Mechanism of Primary Odour Recognition,” The British Society for the Philosophy of Science, University of Stirling, July 4-6
- “Bending the Rules or Bending the Molecules: Contemporary Issues in Olfaction Theory,” 7th annual integrated HPS workshop, UCL Department of Science and Technology Studies, June 28-29
- “Get a whiff of this! Modelling the Mechanism of Primary Odor Recognition,” Models and Simulations 5, University of Helsinki, June 14-16
- 2011 “Natural Kind Terms as Sign Functions,” Natural Kinds in Philosophy and in the Life Sciences: Scholastic Twilight or New Dawn? University of Granada, September 7-9
- “Science and Fiction: On the Reference of Model,” Society for the Philosophy of Science in Practice, University of Exeter, 22-24 June
- “Science and Fiction: On the Reference of Models,” Defending Realism. Ontological and Epistemological Investigations, University of Urbino, June 20-22

“Representing Knowledge: On the Epistemic Condition of Reference,” Integrated HPS workshop, University of Cambridge, April 18-19

Campus Presentations

- 2019 "Olfaction, More than meets the AI?" Luddy School of Informatics, Computing, and Engineering (SICE) Informatics Colloquium Series, Indiana University Bloomington, November 15
- “The Cinderella of the Senses: Smell as a Window into Mind and Brain?” Indiana University Bloomington, January 7
- 2018 “The Science of Smell: Field(work) without a Discipline” Presidential Scholars Research Symposium: 3rd-Year Presentations and Reception. Columbia University, April 30
 URL=<https://www.youtube.com/watch?v=TIY2Ub9CTUM&index=2&list=PLSYL9MBIDfZRiMXRzMbWY-N8TwoAuC9TA>
- 2017 “The Science of Smell: A Philosophical Study at the Bench,” Presidential Scholars in Society and Neuroscience Research Symposium, Columbia University, February 13
 URL= <https://youtu.be/fBwNqf8BHsg>
- 2014 *Respondent*: “Ontologies of Protein-Ligand Binding Complexes,” speaker: Isabella Sarto-Jackson, Ontological Issues in the Life Sciences (Third European Advanced Seminar in the Philosophy of the Life Sciences), KLI Institute, September 1-5
- 2013 *Keynote Talk*: “The Descent of Scent: Model Thinking in Olfaction Theory,” Egenis - Centre for the Study of the Life Sciences, University of Exeter, March 25

SERVICE TO PROFESSION

- 2020 - Present ***Departmental Committee Member***
 Marketing and Advertisement (Department of History and Philosophy of Science and Medicine), Diversity Committee
- 2020 – Present ***College Level***
 Director of Undergraduate Studies (With Jutta Schickore)
- 2019 – Present ***Dissertation Committee Member***
 Students: Nicholas Zautra, Zara Anwarzai, Benjamin Hiskes, Siyu Yao
- 2017 – Present Editorial Advisory Board: *The Philosophers’ Magazine*
- 2020 – Present Review Editor for *Frontiers in Ecology and Evolution*
- 2012 – Present ***Journal Reviewer***
 Journal of Agricultural and Food Chemistry; The British Journal for the Philosophy of Science; Mind; Philosophy of Science; Mind & Language;

Consciousness and Cognition; Philosophical Quarterly; Pacific Quarterly of Philosophy; Synthese; New Ideas in Psychology; Biological Theory; The European Journal for Philosophy of Science; Studies in History and Philosophy of Science Part A; Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences; Journal for General Philosophy of Science; Philosophy, Theory and Practice in Biology; Journal of Applied Philosophy; Theoria; Open Philosophy; The Polish Journal of Aesthetics; Pacific Philosophical Quarterly, Attention, Perception & Psychophysics

2014

Manuscript Reviewer

MIT Press, Columbia University Press

2013 – 2015

Committee Member

Student Advisory Committee: The International Society for the History, Philosophy, and Social Studies of Biology

2007 – 2008

Elected Representative

Student Advisory Committee: Humboldt University Berlin, Department of Philosophy