# Rebecca L. Jackson

ORCid: 0000-0003-2199-1045

#### **Current Position**

2023-2024 Visiting Postdoctoral Fellow

Max Planck Institute for the History of Science - Berlin, Germany

Research Group: Practices of Validation in the Biomedical Sciences, directed by Lara Keuck

Project Title: Measuring a Patient: Psychometric and Clinimetric Validation Practices and the Emergence of Idiographic

Indexes, 1970s-2000s

#### **Research Areas**

Areas of Specialization: Philosophy and History of Science (Scientific Methods, Measurement, Experiment) Areas of Competence: History of Medicine, Biomedical Ethics, Scientific Reasoning, Science and Values, Statistics Research Interests: Measuring instruments and units, non-standard measuring practices, clinical measurement, methodology of measuring, maternal-fetal health

#### Education

2016-2023 Indiana University - Bloomington, Indiana, USA

PhD in History and Philosophy of Science and Medicine

Graduate Minor: Statistics

Dissertation Title: Measuring Well': Clinical Measuring Practices and Philosophy of Measurement

Advisor: Jutta Schickore

Committee Members: Ann Sophie Barwich, Jordi Cat, Sander Gliboff, Brad Luen (Dept. of Statistics; Minor

Advisor), and Leah McClimans (Dept. of Philosophy, University of South Carolina; Outside Reader)

2016-2021 Indiana University - Bloomington, Indiana, USA

MA in History and Philosophy of Science and Medicine

2010-2015 Ball State University - Muncie, Indiana, USA

B.A. in Mathematical Sciences (Mathematics); English (Creative Writing)

Honors College Graduate

Thesis Title: This Is Not a Pipe: Essays on Man as the Measurer of All Things

#### **Fellowships**

2023 - 2024Visiting Postdoctoral Fellowship - Max Planck Institute for the History of Science, Berlin, Germany

12-month residential fellowship (€30,000) with an additional €1,200 health insurance reimbursement.

Practices of Validation in the Biomedical Sciences Research Group directed by Lara Keuck.

2022 - 2023**Doan Dissertation Fellowship** - Beckman Center for the History of Chemistry at the Science History

Institute, Philadelphia, PA, USA

Nine-month residential fellowship with \$27,500 stipend, with an additional \$2,500 reimbursement for health insurance costs.

2021 - 2022John C. Slater Predoctoral Fellowship in the History of Science, Technology, and Medicine - American

Philosophical Society Library & Museum, Philadelphia, PA, USA

Twelve-month residential fellowship with \$25,000 stipend, offered to an advanced Ph.D. student working on topics related to the history of science, technology, and medicine.

2021 – 2022 **Dissertation Fellowship** - Beckman Center for the History of Chemistry at the Science History Institute, Philadelphia, PA, USA

Declined in favor of John C. Slater Predoctoral Fellowship

Nine-month residential fellowship with \$26,000 stipend, with an additional one-time reimbursement for initial travel expenses.

2016 – 2021 **President's Diversity Fellowship** - IU, Bloomington, IN, USA

Full stipend, tuition and health insurance during a five-year period, including two fellowship years and three years of academic appointments. Conferred by the University Graduate School to diverse students who have demonstrated superior academic achievement and commitment to a career in research and teaching higher education.

#### Grants, Awards, and Honors

2023 **Maurice Daumas Prize** – International Committee for the History of Technology (ICOHTEC)

6500 for "The Uncertain Method of Drops': How a Non-Uniform Unit Survived the Century of Standardization," awarded best history of technology article published in the past two years by student or early career scholar (PhD within past 7 years).

2023 **Victor E. Thoren Graduate Student Research Fellowship** – IU Dept. of History and Philosophy of Science and Medicine (HPSC)

\$3000 awarded to an exceptional student near the conclusion of their graduate career.

2022 **Graduate Student Essay Award Honorable Mention** – Forum for the History of Health, Medicine and Life Sciences (FHHMLS) and Cambridge University Press

Paper title: "Constructing Centimeters: Emanuel Friedman's Cervimeter and the Dilatation-Time Curve"

2022 CAS Travel Grant - IU College of Arts and Sciences

\$800 for Graduate Conference Presentation Travel

2021 **Richard S. Westfall Fellowship** – IU Dept. of History and Philosophy of Science and Medicine (HPSC) \$500 for Graduate Research Travel

Nominated for Philanthropic Educational Organization (P.E.O.) International Scholar Award

Selected as the singular candidate for nomination in the College of Arts and Sciences (IU-Bloomington). Nominated by PEO Bloomington Chapter.

One of only 775 women PhD students in the US and Canada nominated for the 2022 Scholar Award (\$20k).

2021 Interdisciplinary Organized Session Prize - International Society for the History, Philosophy, and Social

Studies of Biology

\$500 for Diverse Format Session, "Your Genitals Don't Lie!" An Escorted Encounter with the History and Philosophy of Phallic and Cervical Measuring"

Participants: Rebecca Jackson, Kärin Nickelsen, Jutta Schickore, Caterina Schürch, and Merlin Wassermann

2021 NSF Travel Grant (#1656206) – International Society for the History, Philosophy, and Social Studies of

Biology (ISHPSSB)

\$100 for ISHPSSB 2021 Online Conference Registration

2021 **Mikal Lynn Sousa Award for Excellence in Graduate Scholarship** – IU Dept. of History and Philosophy of Science and Medicine (HPSC)

\$1000 stipend presented to a woman graduate student, studying in History and Philosophy of Science and Medicine or History, for outstanding academic work.

2020 Norwood Russell Hanson Prize for Outstanding Graduate Student Paper – IU Dept. of History and

Philosophy of Science and Medicine (HPSC)

Prize recipient presented winning paper, "The Uncertain Method of Drops': How a Non-uniform Fluid Unit Survived the Century of Standardization," for Fall 2020 departmental colloquium series.

2019 CAS Travel Grant - IU College of Arts and Sciences

\$350 for Graduate Conference Presentation Travel

2019 Richard S. Westfall Fellowship – IU Dept. of History and Philosophy of Science and Medicine (HPSC)

\$1,000 for Graduate Research Travel

2018 Richard S. Westfall Fellowship – IU Dept. of History and Philosophy of Science and Medicine (HPSC)

\$1,000 for Graduate Research Travel

2018 CAS Travel Grant - IU College of Arts and Sciences

\$500 for Graduate Conference Presentation Travel

### **Languages and Skills**

- English Native speaker, German Beginner (Independent study), French Beginner (Two graduate courses in reading for research), Spanish Beginner (Independent Study), Japanese Beginner (Four undergraduate courses)
- R / RStudio (Statistical Software) Intermediate
- AntConc (Digital humanities tool) Beginner

2017

### Training and Experience in Ethical Data Collection

Oral History Training Institute – Center for Oral History at the Science History Institute (Jan. 3-6, 14)

Introductory training covering legal and ethical issues, including the use of release agreements; project planning and budgeting; interview preparation; recording equipment and its uses; conducting interviews in-person and virtually; creating and editing transcripts; preserving and archiving analog and digital materials; using the Oral History Metadata Synchronizer; and deploying

oral history materials in digital humanities projects.

Conducted data collection for behavioral study, Clinical Effort Against Secondhand Smoke Exposure (CEASE), funded by the National Institutes of Health and developed at Massachusetts General Hospital to effectively address family tobacco use.

- Solicited study participation from parents/caregivers of children seen at Riley Physicians Pediatrics (Bloomington, IN)
- Conducted structured interviews with more than 20 participants per day

Research Assistant – Massachusetts General Hospital (May-July 2017)

- Obtained informed consent, recorded participant responses, and notated discrepancies during data collection
- Collected, recorded, and packaged biochemical data (saliva samples) while preserving participant anonymity

## Research

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#### **Refereed Publications**

Jackson, Rebecca L. 2024 [in press]. "Constructing *Centimeters*: Emanuel Friedman's Cervimeter and the Dilatation-Time Curve." *Bulletin of the History of Medicine*.

Jackson, Rebecca L. 2023. "How the Cervix Killed the Cervimeter: A Nonstandard Story of Successful Measurement." Measurement 222 (published online ahead of print Nov. 2023). 113652. https://doi.org/10.1016/j.measurement.2023.113652.

Cristalli, Claudia and Rebecca L. Jackson. 2023. "From Postal Scale to Psychological Apparatus: A History of Experimental Psychology Through the Reconstruction of Peirce and Jastrow's 'On Small Differences of Sensation' (1885)." *Nuncius* 38 (3): (published online ahead of print Nov. 2023). <a href="https://doi.org/10.1163/18253911-bja10066">https://doi.org/10.1163/18253911-bja10066</a>.

Jackson, Rebecca L., and Merlin Wassermann. 2022. "When Standard Measurement Meets Messy Genitalia: Lessons from 20th Century Phallometry and Cervimetry." *Studies in History and Philosophy of Science* 95: 37-49. doi: 10.1016/j.shpsa.2022.06.014.

Jackson, Rebecca L. 2021. "The Uncertain Method of Drops': How a Non-Uniform Unit Survived the Century of Standardization." *Perspectives on Science* 29 (6): 802–841. doi: 10.1162/posc\_a\_00395.

#### Other Publications and Peer-reviewed Abstracts

Jackson, Rebecca. 2022. "Where Does 'Validity' End and 'Fit for Purpose' Begin? Towards a Typology for Implementation Validity [abstract]." In: 29th Annual Conference of the International Society for Quality of Life Research; Oct. 19-22nd, 2022, Prague, Czech Republic. *Quality of Life Research* 31 (Suppl 2), S17. <a href="https://doi.org/10.1007/s11136-022-03257-1">https://doi.org/10.1007/s11136-022-03257-1</a>.

Jackson, Rebecca L. 2022. "Homogametically Yours,' Virginia Apgar's Signature and the Labor of Women in Science." *American Philosophical Society*. https://www.amphilsoc.org/blog/homogametically-yours-virginia-apgars-signature-and-labor-women-science.

#### **Presentations**

#### **Invited Talks**

2023	"How the Cervix Killed the Cervimeter: A Nonstandard Story of Successful Measurement" Presented at "Publications Slam" event hosted by Max Planck Institute for the History of Science (Berlin), Nov. 30th, 2023, Berlin, Germany.
2023	"The Uncertain Method of Drops': How a Non-uniform Fluid Unit Survived the Century of Standardization" Presented for Technical University Berlin (Technische Universität Berlin) Department of History of Science, Nov. 20th, 2023, Berlin, Germany.
2023	"The Uncertain Method of Drops': How a Non-uniform Fluid Unit Survived the Century of Standardization" Presented for Maurice Daumas Prize Session at International Committee for the History of Technology (ICOHTEC) General Assembly (Online), Nov. 16 <sup>th</sup> , 2023.
2023	"Feeling Centimeters of Dilation: Why You've Never Heard of a Cervimeter"  Presented at Lunchtime Lecture Series (Online) hosted by the Science History Institute, Mar. 3rd, 2023.

"Feeling Centimeters: The History of Cervical Measurement and Why You've Never Heard of a Cervimeter" 2022 Presented for Science on Tap Philadelphia (Online), March 14th, 2022. "Constructing Centimeters: Emanuel Friedman's Cervimeter and the Dilatation-Time Curve" 2021 Presented for the Practices and Social Relations of Obstetrical Objects Working Group (Online), June 10th, 2021. "On the Virtues of Inconsistent Metrics: Why Evaluations of Reliability (Not Just Validity) Need a Gold 2019 Presented at Continuity, Improvement, & Innovation in Experimental Methodology (Workshop), Oct. 30th, 2019, IU Bloomington, IN, USA. "The Uncertain Method of Drops': How a Non-uniform Fluid Unit Survived the Century of 2019 Standardization" Presented at Unification and Measurement: Philosophical Perspectives on Evidence and Theory Construction (Workshop), Apr. 17th, 2019, University of Montreal, Montreal, Quebec, Canada. Competitive Papers Presented at Conferences 2023 "Clinimetrics' or 'Clinical Psychometrics'?: Reexamining Disciplinary Boundaries and Methodological Commitments" Presented at International Society for Quality of Life Research (ISOQoL Conference), Oct. 21st, 2023, Calgary, Canada. "Where Does Validity End and 'Fit for Purpose' Begin? Towards a Typology for Implementation Validity" 2022 Presented at International Society for Quality of Life Research (ISOQoL Conference), Oct. 22nd, 2022, Prague, Czech Republic. 2022 "The Cervix, the Cervimeter, and Centimeters: A Historical Case of (Im)Precision in Clinical Practice" Presented at Measurement at the Crossroads 2020-2022: Measuring and Modeling (Conference), June 29-July 1st, 2022, Università Cattolica del Sacro Cuore, Milan, Italy. 2021 "Constructing Centimeters: Emanuel Friedman's Cervimeter and the Dilatation-Time Curve" Presentation for Committee for Integrated HPS at Philosophy of Science Association, Nov. 11th, 2021, Baltimore, MD, USA. Symposium: "Case Studies: Putting the H back in HPS" "Your Genitals Don't Liel' An Escorted Encounter with the History and Philosophy of Phallic and Cervical 2021 Measuring" Diverse Format Session at International Society for the History, Philosophy, and Social Studies of Biology (Online), July 19th, 2021. Participants: Rebecca Jackson, Kärin Nickelsen, Jutta Schickore, Caterina Schürch, and Merlin Wassermann 2021 "Emanuel Friedman's Cervimeter: The Birth of 'Normal' Labor and the Dilatation-Time Function" Presented at Boston University Philosophy Graduate Student Conference (Online), Apr. 23rd, 2021. 2019 "Sending Knowns into the Unknown: Towards an Account of Positive Controls in Experimentation" Presented at CLMPST 2019 - 16th International Congress of Logic, Methodology and Philosophy of Science and Technology (Conference), Aug. 6th, 2019, Prague, Czech Republic.

2019	"Sending Knowns into the Unknown: Towards an Account of Positive Controls in Experimentation"
	Presented at Canadian Society for the History and Philosophy of Science (Conference), June 2nd, 2019,
	UBC, Vancouver, British Columbia, Canada.
2018	""The Uncertain Method of Drops': How a Non-uniform Fluid Unit Survived the Century of Standardization"
	Presented at Measurement at the Crossroads: History, Philosophy and Sociology of Measurement
	(Conference), June 27–29th 2018, Paris Diderot University (Paris 7), Paris, France.
2017	"Measuring Devices on Their Own Terms: The Akan Goldweights of West Africa and the Role of
	Non-epistemic Values in Metrology"
	Presented at MidweSTS Graduate Student Workshop, Sep. 29th-Oct. 1st 2017, IU Bloomington, IN, USA.

### Commentaries

2020	Commentary on "If a Tree Grows No Ring and No One is Around: How Scientists Deal with Missing Tree Rings," PhD Qualifying Paper by Dan Li
	Presented for IU HPSC Department, Nov. 19th, 2020, Bloomington IN, USA
2019	Commentary on "The Reconfiguration of Nineteenth-Century Dermatology," PhD Qualifying Paper by Elana Rakoff
	Presented for IU HPSC Department, Nov. 14th, 2019, Bloomington IN, USA
2019	Commentary on "Richard Whately on Logic and Scientific Method," PhD Qualifying Paper by Jared Neumann
	Presented for IU HPSC Department, Dec. 5th, 2019, Bloomington IN, USA
2019	Commentary on "New Reproductive Technology: Medical Discourse, Belief and Faithful Reasoning; 'Islamic'
	Response from Muslims of Kerala," by Ilyas Manakkadavan
	Presented at STIU Graduate Student Conference on the History and Philosophy of Science and Medicine,
	Mar. 29th, 2019, Bloomington IN, USA

# Teaching

### **Instructor of Record**

Spring 2019 HPSC-X200 - Scientific Reasoning: Measurement, Meaning, and Manipulation: How Humans and Data Shape Each Other

- Designed course and syllabus
- Conducted all lectures and discussions
- Graded all student work

### Lab Instructor for Human Riology (HIIRI)

Lab Instructor for Human Biology (HUBI)	
Spring 2020	HUBI-B200/S200 - The Intricate Human: Sense Perception: Biology and Culture
Fall 2019	HUBI-B200/S200 - The Intricate Human: Responding to the Challenge of Epidemics
<u>Discussion Section Instructor</u>	
Fall 2018	<b>COLL-C105 - Critical Approaches in Natural and Mathematical Sciences</b> : From Discovery to Practice – Putting Science into Action
Fall 2017	<b>COLL-C104 - Critical Approaches in Science and Humanities:</b> Genetics and Eugenics: The Science and Social Applications of Heredity, from Mendel to Molecular Medicine
<u>Grader</u>	
Spring 2018	HUBI-B400 - Complex Problems of Humanity: Run for Your Life: Physical Exercise and Cancer
Spring 2018	HPSC-X200 - Scientific Reasoning: Scientific Methods: Elements, Aims, Limits and Misuses

### **Invited Course Lectures/Demonstrations**

HPSC-X200 - Scientific Reasoning: The Problem of Cancer

2023	"Feeling Centimeters of Dilation: Why You've Never Heard of a Cervimeter"  Presented for Undergraduate Course, Technology and Society (STSC/HSOC 0600-401), University of Pennsylvania, Dept. of History and Sociology of Science, Apr. 20th, 2023, Philadelphia, PA, USA.
2022	""The Uncertain Method of Drops': How a Non-uniform Fluid Unit Survived the Century of Standardization"  Presented for Graduate Course, Opening Philosophy of Medicine to the Future by Integrating Historical

Epistemology and STS (Online), University of Oslo, Dept. of Philosophy, Classics, History of Art and

Ideas, Mar. 28th, 2022.

Fall 2017

2022	"Constructing Centimeters: Emanuel Friedman's Cervimeter and the Dilatation-Time Curve"
	Presented for Graduate Seminar in Metaphysics and Epistemology (PHI 650), University of Kentucky,
	Dept. of Philosophy, Mar. 1st, 2022, Lexington, KY, USA.

2022 "Fingers, Centimeters, and Pocket-watches: A Hands-on Group Experiment on Cervical Dilation Measuring Units"

Demonstration for Graduate Seminar in Metaphysics and Epistemology (PHI 650), University of Kentucky, Dept. of Philosophy, Mar, 1st, 2022, Lexington, KY, USA.

2022 "Fingers, Centimeters, and Pocket-watches: A Hands-on Group Experiment on Cervical Dilation Measuring Units"

Presentation and demonstration for Undergraduate Course, Health Care Ethics (PHI 305), University of Kentucky, Dept. of Philosophy, Mar. 1st, 2022, Lexington, KY, USA.

## Service

### **Departmental Service**

2020-2021; 2019-2020	Student Faculty Representative for IU Dept. of History and Philosophy of Science and Medicine
2017-2018	Chair of Graduate Student Association in IU Dept. of History and Philosophy of Science and Medicine

### Service to the Profession

Service to the Profession	
2022	Founding Member of Society for the Study of Measurement
2022	Moderator for Control Practices in Historical and Systematic Perspectives Conference, IU Bloomington, Mar. 3rd 2022, Bloomington, IN, USA  Moderated presentation "Controlling Away the Phenomenon: Maze Research and the Nature of Learning," by Evan Arnet
2022, 2021	Reviewer for Synthese
2022, 2021	<b>Workshop Organizer</b> for Ethical, Epistemological, and Historical Perspectives on Public Health and Wellness (May 2021)
	<ul> <li>Designed website pages (<a href="https://iuhpsworkshop.blogspot.com/">https://iuhpsworkshop.blogspot.com/</a>) and conference <a href="flyer">flyer</a></li> <li>Coordinated speaker selection, payment logistics, and <a href="workshop schedule">workshop schedule</a></li> <li>Co-facilitated reading group for graduate students in preparation</li> <li>Introduced speaker and moderated Q&amp;A discussion</li> </ul>
2019	Conference Committee Member for IUHPSC Women's Leadership Conference, Bloomington, IN, USA

- Coordinated housing
- Reviewed conference proposals

2018-2019; Conference Committee Member for 2018 and 2019 STIU Graduate Student Conferences on the History and 2017-2018 Philosophy of Science and Medicine, Bloomington, IN, USA (2018, 2019)

- Coordinated housing
- Reviewed conference proposals
- Moderated panel

### **Community Outreach and Involvement**

2023	Public lecturer for <u>Lunchtime Lecture Series</u> hosted by the Science History Institute (Philadelphia)
2022	Public lecturer for Science on Tap Philadelphia series hosted by six Philadelphia institutions.
2019, 2016	Mathematics Tutor for students with learning disabilities and acute learning difficulties
2018, 2017	Volunteer for IU Science Fest, providing educational and hands-on science activities for K-12 students