

Herbert Walker

Department of Philosophy, University of Guelph | PhD Candidate

EDUCATION

Ph.D., Philosophy, University of Guelph 2024–present (expected 2028)

Dissertation: “Identity as Cognitive Achievement: Reconstructing the Structure of Discovery”

Committee: Andrew Bailey (Supervisor), Gus Skorburg, Susan Brown, Andrew Wayne

M.A., Philosophy of Science, Johns Hopkins University

Supervisors: Peter Achinstein, Stephen Barker

M.A., Philosophy of Language, University of Guelph

Supervisor: Douglas Odegard

B.A. (Hons), Philosophy, University of Guelph

AREAS OF SPECIALIZATION / COMPETENCE

AOS: Philosophy of Science (Discovery, Scientific Method); Epistemology (Identity & Warrant)

AOC: Philosophy of Language; History of Analytic Philosophy; Philosophy of Mind

DISSERTATION RESEARCH

Develops CTC → ICA → CIH, a novel methodological framework for reconstructing and evaluating the warrant behind identity claims (“A is B”) in scientific and philosophical discovery.

- Extends Peter Achinstein's account of non-autonomous discovery, challenging a strict discovery/justification divide.
- Uses textually grounded extraction and structural trace analysis to reconstruct the pre-identity reasoning leading to identity claims.
- Applies the framework across historical cases including Leibniz, Frege, Lavoisier, Darwin, and Einstein & Infeld, with further applications under development.
- Investigates a recurring architecture of discovery involving chain formation, an axis point, path selection, paradox/tension, and theory selection.

ADDITIONAL RESEARCH

“Linguistic Perception Theory.”

Research paper, 2025. Develops a theory of linguistic processing as a perceptual modality and investigates semantic qualia.

“Consciousness Bubble Chamber Experiment (CBC): From Linguistic Perception to Semantic Awareness in AI.”

Research paper, 2025. Develops an empirical framework for detecting and evaluating semantic-awareness traces in AI systems.

MANUSCRIPT IN PREPARATION

“Identity as Cognitive Achievement: Reconstructing the Structure of Discovery.” Manuscript in preparation for submission to Synthese.

PRESENTATIONS

“Identity as Cognitive Achievement: Reconstructing the Structure of Discovery.”

University of Guelph PGSA Conference | Apr. 2026

APPLIED RESEARCH & CONSULTING

SR&ED (Scientific Research & Experimental Development) Consultant

Advising clients including River Rouge Brewing, Bioped Don Mills, Rasta Pasta, D&A Mechanical, and Rorschach Brewing on eligible R&D tax credit claims.

DEPARTMENTAL SERVICE

Undergraduate Recruitment Initiative, Department of Philosophy, University of Guelph

With Haowei Yang; undertaken for Chair Karyn Freedman.