

Helena Montoya Calero

PhD Candidate · Bocconi University · ION Management Science Lab

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EDUCATION

Bocconi University

2023 — present

PhD in Management · Focus: Decision-Making under Uncertainty · Milan, Italy

Advisors: Alfonso Gambardella and Arnaldo Camuffo · ION Management Science Lab

Université Catholique de Louvain

2019 — 2021

Master 120 in Economics, Research track · Louvain, Belgium

Thesis: Measuring equality of opportunity based on individual responsibility — comparison Belgium and Colombia. Advisor: François Maniquet.

EAFIT University

2014 — 2018

Economics Bachelor · Medellín, Colombia

WORKING PAPERS

Measuring Scientific Decision-Making in Organizations

with Arnaldo Camuffo and Thomaz Teodorovicz

Introduces and validates a 24-item survey instrument measuring scientific decision-making (SDM) across three dimensions: Causal Reasoning, Evidence Evaluation, and Adaptive Learning. Applied to 3,178 managers in 54 firms (analytic N = 2,745). SDM is primarily an individual-level trait (ICC = 0.018). Tier 1 managers score significantly higher than frontline managers on Adaptive Learning ($b = .14-.16$, $p < .001$); no comparable hierarchy gradient appears for the other two dimensions. SDM also predicts vignette accuracy ($r = .19$; 9.3 pp top-vs-bottom-quintile gap).

N = 3,178 · 54 firms

Heterogeneous Effects of Theory-Based Entrepreneurship Training

with Arnaldo Camuffo and Alfonso Gambardella

Examines heterogeneous treatment effects of theory-based training programs across five RCTs (Italy, Colombia, Netherlands, Spain, UK) using Random Forest and causal inference methods.

5 RCTs · In progress

Extracting Interpretable Models from Large Language Models for Organizational Data

with Said Kazemi

Compares classical econometric approaches (LASSO) with LLM-based methods for predicting ordinal organizational variables. Explores linear probing, prompt-ensemble, and linear distillation techniques.

LLMs · In progress

EXPERIENCE

ION Management Science Lab, Bocconi University

Jun 2023 — present

Research Assistant · Milan, Italy

Decision-Making under Uncertainty, Management Science, field experiments. PIs: Alfonso Gambardella and Arnaldo Camuffo.

Fundación Éxito

Sep 2021 — May 2022

Research Associate · Medellín, Colombia

Research on chronic malnutrition and treatment programs for mothers and children across Colombia. Supported design and implementation of mother-assistance projects, including regular data collection and program monitoring.

Innovations for Poverty Action (IPA)

Apr 2020 — Jun 2021

Research Associate · Medellín, Colombia

PI: Christopher Blattman (University of Chicago). Projects on criminal governance (Gang Rule) and youth decision-making in contexts of violence (Recruitment).

EAFIT University

2016 — 2020

Research Assistant · Medellín, Colombia

Research on labor discrimination in migration, citizen security, and cooperative experiment design. Collaborated with PIs at EAFIT, Los Andes, and the World Bank.

CONFERENCES & PRESENTATIONS

Utah Winter Strategy Seminar

Jan 2025

Deer Valley, Utah

Theory-Based View: A Scientific Approach to Value Creation

2nd Annual Bayesian Entrepreneurship Conference

2025

Bocconi University · Milan, Italy

SKILLS

Programming & data: Python, R, STATA, LaTeX, GIS, API integration, LLMs

Methods: Causal inference, field experiments, machine learning, NLP

Languages: Spanish (native) · English (TOEFL 97)