Swarthmore College 500 College Avenue Swarthmore, PA 19083 USA mflaher1@swarthmore.edu

# Molly E. Flaherty

### RESEARCH INTERESTS

Language acquisition, Numerical cognition, cognitive development, language emergence, sign languages and sign acquisition, effects of cultural variation in early childhood environment

#### **EMPLOYMENT**

### Swarthmore College, Swarthmore, PA, USA

08/18-present

Visiting Assistant Professor Department of Psychology

Teaching includes: Developmental Psychology, Research Design & Analysis, Research Practicum, Language Development (upper level undergraduate seminar), Is Nature vs. Nurture the Wrong Question? (first year seminar), Psychological Research in the Age of Twitter (mini-seminar)

## The University of Edinburgh, Edinburgh, UK

12/16-08/18

British Academy & Royal Society Newton International Postdoctoral Fellow

Centre for Language Evolution

Department of Linguistics and English Language

#### The University of Chicago, Chicago IL, USA

08/14-12/16

Postdoctoral Scholar

Casasanto Lab & Goldin-Meadow Lab

Department of Psychology

#### **EDUCATION**

### The University of Chicago

Chicago, IL USA

Ph.D. in Developmental Psychology, June 2014

Advisor: Susan Goldin-Meadow

### School of Philosophy, Psychology and Language Sciences, University of Edinburgh

Edinburgh, United Kingdom

Advisor: Simon Kirby

MSc in the Evolution of Language and Cognition, November 2007

Degree awarded with distinction.

### Columbia College, Columbia University

New York, NY USA

B.A. in Psychology, May 2004, Concentration in Spanish Literature Graduated magna cum laude with additional honors in psychology.

# AWARDS & GRANTS

Newton Alumni Fellowship, The British Academy, 2019-2020 (Flaherty, PI) Faculty Research Support Grant, Swarthmore College, 2018 (Flaherty, PI)

NIH (NIDCD) R01 DC005407 "The creation and enhancement of language" 2017-2022

(Senghas, PI; Flaherty, Consultant)

NSF 1654154 "Language emergence in the manual modality" 2017-present (Goldin-Meadow, PI; Flaherty, Consultant)

Newton International Fellowship, The British Academy, 2015-2018 (Flaherty, PI)

Benjamin Bloom Dissertation Year Fellowship, June 2013-2014

William Rainey Harper Dissertation Year Fellowship, 2013-2014 (declined)

John Dewey Prize Lectureship, Spring 2013

National Science Foundation Graduate Research Fellowship, September 2009-August 2012

Psychology Graduate Student Organization Travel Award, 2009, 2010, 2011, 2012

Paula Menyuk Travel Award, BU Conference on Language Development, 2007 & 2013

US Masters Scholarship, University of Edinburgh, September 2006

#### **LANGUAGES**

Native English, Fluent Spanish, Conversational Nicaraguan Sign Language, Conversational German, Conversational American Sign Language, Basic British Sign Language

#### **TEACHING EXPERIENCE**

### **Swarthmore College, Department of Psychology**

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Developmental Psychology		Fall 2018, 2019
Research Methods		Fall 2019
Research Practicum		Spring 2020
Mini-seminar: Research and Debate in the Age of Twitter		Fall 2018
Language Learning and Development (Upper Level Undergraduate Seminar)		Spring 2019, 2020
Is Nature vs. Nurture the Wrong Question? (First Year Seminar)		Spring 2019
The University of Chicago, Department	of Psychology	
Psychology 22550 Is Nature vs. Nurture the Wrong Question?  Lecturer		Spring 2013
Psychology 25101 The Psychology of Decision Making  Teaching Assistant		Spring 2012
Psychology 20500 Introduction to Developmental Psychology  Teaching Assistant, Guest Lecturer		Spring 2011
Psychology 20100 Psychological Statistics  Teaching Assistant		Fall 2010
Mentorship Caroline Reynier (BA, honors thesis) Evan Orticio (BA, honors thesis) Lilia McGee-Harris (BA, honors thesis) Samantha Martin (BA) Asha Stewart Sato (PhD) Katelyn Stangle (BA, honors thesis)  Max Planck Child Study Centre, University	Swarthmore College Swarthmore College Swarthmore College Swarthmore College The University of Edinburgh The University of Chicago	2019-present 2019-present 2018-present 2019-present 2016-present 2011-2014
Mary Dlamals Institute for Evolutionary		

### RESEARCH **EXPERIENCE**

## Max Planck Institute for Evolutionary Anthropology, Department of Comparative and **Developmental Psychology**

Research Assistant

Advisors: Elena Lieven, Michael Tomasello

Lab examines language acquisition from a usage-based approach. Responsible for proofing of dense corpus of child speech. Ran child subjects in studies. Aided in preparing and developing studies on children's use of articles and the origins of pointing.

### Language Acquisition and Development Laboratory, Columbia University Lab Manager

04/04 - 09/06

Advisor: Ann Senghas

Lab's research investigates mechanisms behind language acquisition and innovation through the lens of Nicaraguan Sign Language. Responsible for day-to-day lab activities in New York as well as field trips to Nicaragua. Aided with preparation of papers, presentations. Personal project examined concepts of numerosity in typically and atypically language exposed signers.

### Terrace Lab for Primate Cognition, Columbia University

06/03 - 09/06

Research Assistant
Advisor: Herbert Terrace

Lab investigates numerical abilities, confidence judgments, metacognition, cognitive imitation and spatial recall in Rhesus macaques. Examined metacognitive abilities in first grade children as they compare to those in rhesus monkeys for honors thesis.

# PROFESSIONAL SERVICE

# **Evolution of Language Conference (Evolang) Accessibility Committee**

04/17-present

Founder, Chair

Committee addresses issues of language accessibility and is working to secure sign language interpreting for our 2020 conference and to ensure that all future conferences will include interpreting support.

### **Evolution of Language Conference (Evolang) Scientific Committee**

04/16-present

Committee elicits submissions, assigns reviewers, and oversees acceptance of conference presentations. In recent years, committee has instituted anonymous reviewing of abstracts leading to a significant increase in junior presenters and female presenters at the most recent conference (Evolang 2018).

# Academic Life Committee, University of Chicago

09/10-07/14

Founder, Chair

Committee addresses issues of concern for graduate students by increasing student faculty communication. Issues addressed include increasing student involvement in the hiring process, standardizing course requirements, and increasing teaching opportunities for students.

### Student Mentor, Department of Psychology, University of Chicago

09/09-09/12

Helped new students to get acclimated in the department. Provided information about coursework, departmental requirements, as well as social and living issues.

#### Ad Hoc Reviewer for

Journals: Cognition, Cognitive Science, Cerebral Cortex

Conferences: Boston University Conference on Language Development (BUCLD), The Evolution of

Language International Conference (Evolang)

Funding Bodies: The British Academy (2018 Visiting Fellowships)

# PROFESSIONAL AFFILIATIONS

#### Sign Language Linguistics Society (SLLS)

09/10-present

#### **International Association for the Study of Child Language**

09/04-present

#### **Evolution of Language (Evolang) Conference Permanent Committee**

04/16-present

#### INVITED TALKS

Flaherty, M. How Developing Minds Build a New Language: The Emergence of Nicaraguan Sign Language. Psychology Department Brown Bag. University of the Sciences, Philadelphia. September 2019.

Flaherty, M. What Happens When You Learn to Count in Adulthood? The Case of Nicaraguan Signers Older than their Language. Developmental Area Meeting. Temple University, Philadelphia, February 2019.

Flaherty, M. The Emergence of Grammatical Structure in a New Language: Marking Who Did What to Whom in Nicaraguan Sign Language. The Transmission of Songs in Birds, Humans, and Other Animals. Columbia University, New York, February 2019.

Flaherty, M. Deaf Children Create their Own Language: The Birth of Nicaraguan Sign Language. EdSign Public Lecture Series on Topics Related to Sign Language and Deaf Studies. Edinburgh, April 2018.

Flaherty, M. How Developing Minds Build a New Language: The Emergence of Nicaraguan Sign Language. School of Psychology Seminar. Queens University, Belfast, February 2018.

Flaherty, M. How Developing Minds Build a New Language: The Emergence of Nicaraguan Sign Language. The University of California, Santa Barbara, January 2018.

Flaherty, M. What Can Language Emergence Tell us about the Developing Mind?: The Case of Nicaraguan Sign Language. Developmental Linguistics Seminar. The University of Edinburgh, UK October 2017.

Flaherty, M. Multivariate approaches to diversity: The present and future of multi-measure, multi-modal, and interdisciplinary work in shaping first language acquisition theory. Invited workshop talk presented at the Many Paths to Language Workshop, Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands, October 2017.

Flaherty, M. Marking Argument Structure in Nicaraguan Sign Language (and Gesture). Language Evolution Seminar. The University of Edinburgh, UK, August 2017.

Flaherty, M. The Birth of a Language: Is Nicaraguan Sign Language a Creole? Plenary talk presented at the Tenth Creolistics Workshop, Aarhus University, Denmark, April 2015.

Flaherty, M. Building a New Language: How Input, Community, and Iterated Learning are Shaping Nicaraguan Sign Language. The University of California, San Diego, February 2015.

Flaherty, M. The Emergence of Linguistic Structure: Evidence from Nicaraguan Sign Language. The University of Edinburgh, Chancellor's Fellow Candidate Presentation, April 2014.

Flaherty, M. Can You Teach an Adult to Count?: Number and Language Emergence in Nicaragua. Workshop on Education, The University of Chicago, February 2014.

Flaherty, M. The Emergence of Verb Agreement in Nicaraguan Sign Language. Workshop on Language, Cognition, and Computation, The University of Chicago, April 2012.

# POSTERS AND PRESENTATIONS

Flaherty, M., Sato, A., Kirby, S. Quantifying the Emergence of Structure in Nicaraguan Sign Language with Motion Tracking Technology. Paper presented at the 8<sup>th</sup> Conference for the International Society for Gesture Studies, Cape Town, South Africa, July 2018.

Flaherty, M., Schouwstra, M., Goldin-Meadow, S. Do We See Word Order Patterns from Silent Gesture Studies in a New Natural Language? Paper presented at the 12<sup>th</sup> Evolution of Language Conference, Torun, Poland, April 2018.

Flaherty, M., Goldin-Meadow, S. The Effects of Gesture Input on the Development of Child Homesign. Poster and highlight talk presented at the Many Paths to Language Workshop, Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands, October 2017.

Flaherty, M., Goldin-Meadow, S. Emergent Marking of Animacy in Nicaraguan Sign Language. Poster presented at the Inaugural Cultural Evolution Society Conference, Jena, Germany. September 2017.

Flaherty, M., Hunsicker, D., Goldin-Meadow, S. The Seeds of Nicaraguan Sign Language are not Found in Gesture. Paper presented at the 41<sup>st</sup> Annual Boston University Conference on Language Development, Boston, USA. November 2016.

Flaherty, M., Hunsicker, D., Goldin-Meadow, S. Does Input Matter?: The Effects of Gesture Input on the Development of Child Homesign. Paper presented at the 7<sup>th</sup> Conference for the International Society for Gesture Studies, Paris, France. July 2016.

Flaherty, M., Stangl, K., Goldin-Meadow, S. Do Lab Attested Learning Biases Predict the Structure of a New Natural Language? Paper presented at the 11<sup>th</sup> Evolution of Language Conference, New Orleans, USA. March 2016.

Silvey, C., Flaherty, M., Goldin-Meadow, S., Kirby, S., Smith, K. Communication Without Prior Learning Inhibits the Emergence of Systematic Structure. Paper presented at the Workshop on Language Adapts to Interaction Workshop at the 11<sup>th</sup> Evolution of Language Conference, New Orleans, USA. March 2016.

Martin, A., Flaherty, M., Senghas, Al, Pyers, J. The Emergence of Three-Dimensional Signing and Mental Rotation Skill in Deaf Nicaraguan Signers. Plenary talk accepted at International Conference on Sign Language Acquisition (ICSLA). Amsterdam, Netherlands. July 2015.

Flaherty, M., Senghas, A., Coppola, M. Goldin-Meadow, S. The Emergence of Redundancy in a New Language. Paper presented at the 11<sup>th</sup> High Desert Linguistics Society Conference, Albuquerque, USA. November 2014.

Flaherty, M., Goldin-Meadow, S., Senghas, A., Coppola, M., Gleitman, L. Language from Gesture? Emergent Transitivity Marking in Nicaraguan Sign Language. Paper presented at the 10<sup>th</sup> Evolution of Language Conference, Vienna, Austria. April 2014.

Flaherty, M., Goldin-Meadow, S., Senghas, A., Coppola, M., Gleitman, L. Animacy and Verb Classes in Nicaraguan Sign Language. Poster presented at the 38<sup>th</sup> Annual Boston University Conference on Language Development, Boston, USA. November 2013.

Flaherty, M., Goldin-Meadow, S., Senghas, A., Coppola, M. Growing a Spatial Grammar: The Emergence of Verb Agreement in Nicaraguan Sign Language. Poster presented at the 11<sup>th</sup> Theoretical Issues in Sign Language Research Conference, London, England. July 2013.

Flaherty, M., Goldin-Meadow, S., Senghas, A., Coppola, M. Watching Minds Shape Language: The Emergence of Spatial Verb Agreement in Nicaraguan Sign Language. Poster presented at the Budapest Central European University Conference on Cognitive Development, Budapest, Hungary. January 2013.

Flaherty, M., Goldin-Meadow, S., Özyürek, A. Does Input Matter? Gesture and Homesign in Nicaragua, China, Turkey, and the USA. Paper presented at the Child Language Seminar, London, England. June 2010.

Flaherty, M., Goldin-Meadow, S. Does Input Matter? Gesture and Homesign in Nicaragua, China, Turkey, and the USA. Paper presented at the Eighth Evolution of Language Conference, Utrecht, The Netherlands. April 2010.

Flaherty, M., Senghas, A. Number and Number Signs in Nicaragua. Paper presented at the Alston Hall Child Language Conference, Preston, England. May 2008.

Flaherty, M., Kirby, S. Iterated Language Learning in Children. Paper presented at the Seventh Evolution of Language Conference, Barcelona, Spain. March 2008.

Flaherty, M., Senghas, A. Numerosity and Number Signs in Deaf Nicaraguan Adults. Presentation at the 32<sup>nd</sup> Boston University Conference on Language Development, Boston, USA. November 2007.

#### **MANUSCRIPTS**

Flaherty, M., Hunsicker, D., Goldin-Meadow, S. (2019). The birth of a new language: Gestural precursors to Nicaraguan Sign Language. (in revision)

Flaherty, M., Sato, A.\*, Kirby, S. (in prep). Quantifying the Emergence of Structure in Nicaraguan Sign Language with Motion Tracking Technology.

Rissman, L., Horton, L., Flaherty, M., Senghas, A., Coppolla, M., Brentari, D., Goldin-Meadow, S (under review). Emergence of agent-backgrounding in homesign and Nicaraguan Sign Language.

# **PUBLICATIONS**

(\*denotes student author)

Abner, N., Flaherty, M., Stangl, K\*., Coppola, M., Brentari, D., & Goldin-Meadow, S. (2019). The noun-verb distinction in established and emergent sign systems. *Language*, 95(2), 230-267.

Gleitman, L. Senghas A., Flaherty, M., Coppola, M., Goldin-Meadow, S. (2019) The emergence of the formal category "symmetry" in a new sign language. *Proceedings of the National Academy of Sciences of the USA*, 116(24), 11705-11711.

Flaherty, M., Stangl, K.\*, Goldin-Meadow, S. (2016) Do Lab Attested Biases Predict the Structure of a New Natural Language? In S. Roberts, C. Cuskley, L. Barceló-Coblijn, O. Feher, & T. Verhoef, (Eds.), *Proceedings of the Eleventh Evolution of Language Conference*. Singapore: World Scientific Publishing Co.

Flaherty, M., Goldin-Meadow, S. (2014) Language from Gesture?: Emergent Transitivity Marking in Nicaraguan Sign Language. In E. Cartmill, S. Roberts, H. Lyn, & H. Cornish, (Eds.), *Proceedings of the Tenth Evolution of Language Conference*. Singapore: World Scientific Publishing Co.

Spaepen, E., Coppola, M., Flaherty, M., Spelke, E., Goldin-Meadow, S. (2013). Generating a lexicon without a language model: Do gestures for number count? *Journal of Memory and Language*, 69(4), 496-505

Flaherty, M., Senghas, A. (2011). Numerosity and number signs in deaf Nicaraguan adults. *Cognition*, 121(3), 427-436.

Flaherty, M. (2010). Review of Sign Language Acquisition. Journal of Child Language. 37, 956-961.

Flaherty, M., Goldin-Meadow, S. (2010) Does input matter? Homesign in Nicaragua, China, Turkey and the USA. In A.D.M. Smith, M. Schouwstra, B. de Boer, & K. Smith, (Eds.), *Proceedings of the Eighth Evolution of Language Conference* (pp. 403–404). Singapore: World Scientific Publishing Co.

Hurford, J. R., Flaherty, M., Argyropoulos, G. (2007). Past and future, human and non-human, semantic/procedural and episodic, commentary on Suddendorf and Corballis: The evolution of foresight: What is mental time travel and is it unique to humans? *Behavioral and Brain Sciences*, 30, 324-325.