

# Tyler Zarus Knowlton

## Current Address

1413H Marie Mount Hall  
7814 Regents Drive  
College Park, MD 20742

## Contact Information

tzknowlt@umd.edu  
tylerknowlton.com  
(856) 287-6942

## Education

Ph.D. (expected) Linguistics Advisors: <a href="#">Jeffrey Lidz</a> and <a href="#">Paul Pietroski</a> <b>University of Maryland</b> , College Park, MD	2021
B.A. Cognitive Science (with honors) Minors in Linguistics, Philosophy, and Psychology <b>Johns Hopkins University</b> , Baltimore, MD	2015

## Awards and Honors

<a href="#">NSF Doctoral Dissertation Improvement Grant</a> , “Doctoral Dissertation Research: The mental representation and acquisition of the universal quantifiers” (NSF #BCS-2017525) (with <a href="#">Jeffrey Lidz</a> )	2020
Jerrold J. Katz Young Scholar Award	2019
Jacob K. Goldhaber Travel Grant	2018
Fellow, <a href="#">NSF-NRT Training Program</a> , “NRT-DESE: Flexibility in Language Processes and Technology: Human- and Global-Scale” (NRT #1449815)	2017
Maryland Language Science Fellowship	2017
Owen Scholars Fellowship (declined)	2016
Phi Beta Kappa	2015
Cognitive Science Departmental Honors	2015
Johns Hopkins University Honors	2015
Provost’s Undergraduate Research Award	2014

## Publications

**Knowlton, T.**, Hunter, T., Odic, D., Wellwood, A., Halberda, J., Pietroski, P., and Lidz, J. (under review) *Pieces of word meaning: How language impacts vision and action.*

**Knowlton, T.**, Pietroski, P., Halberda, J., and Lidz, J. (under review) *The mental representation of universal quantifiers.*

## Presentations

## Conference Talks

- Knowlton, T.**, Pietroski, P., Williams, A., Halberda, J., and Lidz, J. (2020) *Memory for cardinality supports a one-set account of conservativity*. Experiments in Linguistic Meaning (ELM) 1, University of Pennsylvania.
- Cesana-Arlotti, N., **Knowlton, T.**, Lidz, J., and Halberda, J. (2020) *An investigation of the origins of logical quantification: infants' (and adults') representations of exhaustivity in collective or individual complex actions*. Symposium on Learning 'hard words', XXII International Congress of Infant Studies (ICIS) Biennial Congress, Glasgow, Scotland.
- Knowlton, T.**, Pietroski, P., Williams, A., Halberda, J., and Lidz, J. (2020) *Conservative meanings with only one set: evidence from verification*. 33rd CUNY Conference on Human Sentence Processing, University of Massachusetts at Amherst.
- Knowlton, T.**, Pietroski, P., Halberda, J., and Lidz, J. (2019) *The mental representation of universal quantifiers: evidence from verification*. 32nd CUNY Conference on Human Sentence Processing, CU Boulder.
- Knowlton, T.**, Halberda, J., Pietroski, P., and Lidz, J. (2018) *Acquiring the universal quantifiers: every part together or each part on its own?* Boston University Conference on Language Development (BUCLD) 43, Boston, MA.

## Conference Posters

- Cesana-Arlotti, N., **Knowlton, T.**, Lidz, J., and Halberda, J. (2020) *An investigation of the origins of logical quantification: infants' (and adults') representations of exhaustivity in collective or individual complex actions*. Society for Philosophy and Psychology (SPP) 46th Annual Meeting, Princeton.
- Knowlton, T.**, Pietroski, P., Williams, A., Halberda, J., and Lidz, J. (2020) *Determiners are 'conservative' because their meanings are not relations: evidence from verification*. Semantics and Linguistic Theory (SALT) 30, Cornell.
- Cesana-Arlotti, N., **Knowlton, T.**, Lidz, J., and Halberda, J. (2020) *Who's chasing whom? Adults' and infants' engagement of quantificational concepts ("each" and "all") when representing visual chasing events*. Vision Sciences Society (VSS) 20th Annual Meeting, Virtual.
- Cesana-Arlotti, N., **Knowlton, T.**, Lidz, J., Pietroski, P., and Halberda, J. (2019) *Concepts of universal quantification ("each" and "all") may support infant and adult understanding of collective and distributive actions*. Cognitive Development Society (CDS) 2019 Biennial Meeting, Louisville, KY.
- Knowlton, T.**, Halberda, J., Pietroski, P., and Lidz, J. (2019) *A novel memory task reveals early understanding of quantifier meanings*. Society for Research in Child Development (SRCD) 2019 Biennial Meeting, Baltimore, MD.
- Knowlton, T.**, Pietroski, P., Halberda, J., and Lidz, J. (2019) *Representational format and universal quantifiers*. Linguistic Society of America (LSA) Annual Meeting 2019, New York, NY.
- Perkins, L., **Knowlton, T.**, Williams, A., and Lidz, J. (2018) *Matching number vs. linking roles: Using 3-participant scene percepts to understand infants' bootstrapping*. Boston University Conference on Language Development (BUCLD) 43, Boston, MA.
- Knowlton, T.**, Perkins, L., Williams, A., and Lidz, J. (2018) *Getting a grip on infants' event representations: participant number in TAKE and PICK-UP*. XXI International Congress of Infant Studies (ICIS) Biennial Congress, Philadelphia, PA.

- Knowlton, T.**, Wong, A., Halberda, J., Pietroski, P., and Lidz, J. (2018) *Different determiners, different algorithms: Two majority quantifiers in Cantonese bias distinct verification strategies*. 31st CUNY Conference on Human Sentence Processing, UC Davis.
- Knowlton, T.**, Halberda, J., Pietroski, P., and Lidz, J. (2017) *Sentences, centers, and sets: Set selection and the meanings of more and most*. Cognitive Development Society (CDS) Biennial Meeting, Portland, OR.
- Knowlton, T.**, Halberda, J., Pietroski, P., and Lidz, J. (2017) *Distinguishing first- from second-order specifications of each, every, and all*. Mid-Atlantic Colloquium of Studies in Meaning (MACSIM) 7, Georgetown.
- Knowlton, T.**, Halberda, J., Pietroski, P., and Lidz, J. (2017) *Set selection and storage reflect differences in quantifier meanings*. McDonnell Network Plenary Workshop on “The Ontogenetic Origins of Combinatorial Thought”, UCSD.
- Perkins, L., **Knowlton, T.**, Hirzel, M., Dudley, R., Williams, A., and Lidz, J. (2017) *Linguistic and conceptual structure in verb learning*. McDonnell Network Plenary Workshop on “The Ontogenetic Origins of Combinatorial Thought”, UCSD.

## Invited Talks

- Knowlton, T.** (2019) *The psychological treatment of (universal) quantification*. Integrated Language Sciences and Technology Seminar, University of Pennsylvania.
- Knowlton, T.** (2018) *Are natural language quantifiers first- or second-order?* McDonnell Network Focused Workshop on “The Development of Set and Quantifier Representations”, Johns Hopkins.

## Teaching and Mentorship

### Teaching Experience

#### *University of Maryland*

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|---|-------------|
| Instructor, Language and Thought (LING449T)   | Spring 2020 |
| Designed and taught 10 student seminar  |             |
| TA, Grammar and Meaning (LING410; Instructor: Valentine Hacquard)                           | Fall 2019   |
| Duties: grading, office hours, reviewing p-sets in class, once teaching ~25 student lecture |             |
| TA, Child Language Acquisition (LING444; Instructor: Jeffrey Lidz)                          | Spring 2019 |
| Duties: grading, office hours, helping write exams, once teaching ~20 student lecture       |             |
| TA, Language and Mind (LING240; Instructor: Tonia Bleam)                                    | Fall 2018   |
| Duties: grading, office hours, review sessions, twice teaching ~50 student lecture          |             |
| TA, Introductory Linguistics (LING200; Instructor: Tonia Bleam)                             | Spring 2018 |
| Duties: weekly discussion section of ~30 students, grading, office hours                    |             |

### Mentorship

#### *University of Maryland*

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| High school summer intern mentor, <a href="#">Project on Children's Language Learning</a>  | 2019 |
| Responsible for mentoring high school research assistant S. Chervenak and supervising his final paper & science fair poster presentation |      |

Undergraduate mentor, <a href="#">Project on Children's Language Learning</a> Responsible for mentoring undergraduate research assistants M. Lauchman, M. Aiyad, D. Lahori, T. Hudson, M. Griffith, & S. Deshpande and supervising their end-of-term poster presentations	2018-
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*Johns Hopkins University*

Undergraduate mentor, <a href="#">Vision and Cognition Lab</a> Responsible for mentoring undergraduate research assistants A. Wong, S. Akmal, A. Vadaparty, I. Perone, & L. Grau and supervising their term papers	2015-16
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## Research Experience

Research Assistant, <a href="#">Project on Children's Language Learning</a> , College Park, MD	2016-
PURA Fellow, <a href="#">Language Processing and Development Lab</a> , Baltimore, MD	2014-16
Lab Manager, <a href="#">Vision and Cognition Lab</a> , Baltimore, MD	2014-16
Research Assistant, <a href="#">Vision and Cognition Lab</a> , Baltimore, MD	2012-13
Research Intern, Coriell Institute for Medical Research, Camden, NJ	2012

## Academic Activities

### Service

<a href="#">Mayfest 2020: Hindsight</a> Organizing Committee	2019-
<a href="#">Linguistics Colloquium</a> Committee	2019-
Developmental Science Workshop Co-Organizer (with Z. Ovens & M. Hirzel), <i>Endless Possibilities: The Development of Possibility and Necessity in Cognition, Language, and Society</i>	2018-19
Chair, <a href="#">Language Science Outreach Committee</a>	2018-19
<a href="#">Winter Storm 10</a> Planning Committee	2017-18
Co-chair (with S. Thivierge), Linguistics Graduate Student Association	2017-18
Career fair coordinator, <a href="#">Language Science Outreach Committee</a>	2016-18
<a href="#">Winter Storm 9</a> Planning Committee	2016-17
<a href="#">SALT27</a> Organizing Committee	2016-17

### Ad Hoc Reviewer

Language Learning and Development  
Cognitive Science Society  
Journal of Memory and Language

### Professional Memberships

Cognitive Science Society	2020-
Society for Research in Child Development	2019-
International Congress of Infant Studies	2017-

Cognitive Development Society  
Linguistic Society of America

2017-  
2015-

## **Skills**

Technical: R, PsychoPy (python), L<sup>A</sup>T<sub>E</sub>X, Linger, PsyToolkit, Habit, HTML/CSS, JavaScript, Psychtoolbox (MATLAB), Adobe Premiere, Git, PsyScope X, PsyCode

Experimental: Visual Psychophysics, Habituation-switch, Self-paced reading (including with eye-tracking)

[updated 7/14/2020]