# KHUYEN LE

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## EDUCATION

PhD Candidate, Experimental Psychology
> Advisor: David Barner
> Language & Development Lab
> *UC San Diego, San Diego, CA*

MS, Computer Science (Human-Computer Interaction), 06/2022
> *Stanford University, Stanford, CA*
> Cumulative GPA: 3.73 (weighted), 3.64 (unweighted)

BS (with Departmental Honors and Distinction), Symbolic Systems (Cognitive Science), 06/2021
BA (with Distinction), Comparative Literature, 06/2021
> *Stanford University, Stanford, CA*
> Cumulative GPA: 4.00 (weighted), 3.94 (unweighted)
> Psychology GPA: 4.18 (weighted), 4.00 (unweighted)

## JOURNAL PUBLICATIONS

**Le, K. N.,** & Barner, D. (under review). The role of epistemic reasoning in mutual exclusivity inferences. https://doi.org/10.31234/osf.io/2py3a_v1

**Le, K. N.,** Bale, A. C., & Barner, D. (under review). Object-mass nouns specify individuation lexically: Evidence from English and French. https://doi.org/10.31234/osf.io/68amw_v1

**Le, K. N.,** Schneider, R. M., & Barner, D. (2025). The Development of Cardinal Extension: From Counting to Exact Equality. *Developmental Psychology, 61*(6), 1180–1195. https://doi.org/10.1037/dev0001922

Bohn, M., **Le, K. N.**, Peloquin, B., Köymen, B. & Frank, M.C. (2020), Children's interpretation of ambiguous pronouns based on prior discourse. *Developmental Science, 24*, e13049. https://doi.org/10.1111/desc.13049

## PREPRINTS & OTHER PUBLICATIONS

Staveley, A., Elott, E., **Le, K. N.**, Hou, E., & Morgan, P. (accepted). Virginia Woolf in Circulation: The Hogarth Press Order Books, Modernist Bookselling, and Digital Praxis. *Modernism/modernity*

**Le, K. N.,** & Barner, D. (2023). Syntax-Semantics Mappings of Superordinate Nouns: Mass-Count Syntax and Inferences about Functional Context. https://doi.org/10.31234/osf.io/9mz3b

## CONFERENCE ACTIVITIES

**Peer-reviewed Proceedings**

**Le, K. N.,** Bale, A. C., & Barner, D. (2025). Object-mass nouns specify individuation lexically: Evidence from English and French. In *Proceedings of the Annual Meeting of the Cognitive Science Society* (Vol. 47).

**Le, K. N.,** Kwon, C., Wu, M., & Barner, D. (2024). 'Five' is the number of bunnies and hats: Children's understanding of cardinal extension and exact number. In *Proceedings of the Annual Meeting of the Cognitive Science Society* (Vol. 46). https://escholarship.org/uc/item/8293g6hd.

Duan, Y., **Le, K. N.** & Lupyan, G. (2024). Differences in distributional structure can lead to differences in similarity biases. In *The Evolution of Language: Proceedings of the 15th International Conference (EVOLANG XV).* https://doi.org/10.17617/2.3587960.

Cheng, A. Y., Guo, M., Ran, M., Ranasaria, A., Sharma, A., Xie, A., **Le, K.N**., … & Landay, J. A. (2024). Scientific and Fantastical: Creating Immersive, Culturally Relevant Learning Experiences with Augmented Reality and Large Language Models. In *CHI '24: Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems.* https://doi.org/10.1145/3613904.3642041

**Le, K. N.,** Gao, S., Frank, M. C., & Carstensen, A. (2023). Re-examining cross-cultural similarity judgments using language statistics. In *Proceedings of the Annual Meeting of the Cognitive Science Society* (Vol. 45). https://escholarship.org/uc/item/2gf8p2pn

**Talks**

**Le, K. N.,** & Barner, D. (2025). *Animal but not Dog: Children's computation of implicatures in hierarchically-structured categories.* Talk at the 1st Southern California Meeting for Investigations in Developmental Science, San Diego, California.

**Le, K. N.,** Bale, A., & Barner, D. (2024). *Who Has More Furniture? Context Effects on the Quantification of Mass vs. Count Superordinate Nouns.* Talk at the 7th California Meeting of Psycholinguistics, San Diego, California.

**Le, K. N.,** & Barner, D. (2024). *"Let's call this a dax!" Children and adults consider speaker knowledge when reasoning about novel labels.* Talk at the 49th Boston University Conference on Language Development, Boston, Massachusetts.

Xiaotong, T.X., **Le, K.**, Cha, C., Fleet, S., & Dow, S. (2021). *Crowdsourcing Exploratory Cues for Idea Browsing and Inspiration Discovery.* Talk at the 9th AAAI Conference on Human Computation and Crowdsourcing, virtual.

**Abstracts & Poster Presentations**

**Le, K. N.,** Parkinson-Coombs, O., Núñez, R., & Barner, D. (2024). *Does eight equal eight? The role of counting knowledge in children's understanding of exact equality.* Poster presented at the 7th Mathematical Cognition and Learning Society Conference, Washington, D.C.

**Le, K. N.,** & Barner, D. (2024). *'Five' is the number of bunnies and hats: Children's understanding of cardinal extension and exact number.* Poster presented at the 2024 Conference of the Cognitive Development Society, Pasadena, California.

**Le, K.**, Carstensen, A., and Frank, M.C. (2021). *Re-Examining Cross-Cultural Similarity Judgments Using Lexical Co-Occurrences*. Poster presented at the 43rd Meeting of the Cognitive Science Society, virtual.

**Le, K.**, Murnane, E., & Landay, J. (2020). *Creating Context-Aware Learning Experiences*. Poster presented at the 2020 Symbolic Systems Program Summer Projects Poster Fair, Stanford, California.

**Le, K.**, Madore, K., & Wagner, A. (2019). *Trial-level and subject-level attentional lapses during encoding affect encoding and subsequent memory.* Poster presented at Stanford University's Symposium of Undergraduate Research and Public Service and the 2019 Symbolic Systems Program Summer Projects Poster Fair, Stanford, California.

**Le, K.**, Bohn, M., Peloquin, B., & Frank, M.C. (2019). *Discourse Continuity in Children: Using Common Ground to Resolve Ambiguous Utterances*. Poster presented at Stanford University's April Symposium of Undergraduate Research and Public Service, Stanford, California.

**Le. K.**, Wanpei, C., & Kumar, A.P., (2016). *DEAD-box RNA helicase DP103 as a novel regulator of Wnt/β-catenin signaling pathway and promotes cancer stem cell-like behavior in triple negative breast cancers*. Poster presented at Singapore Science Research Symposium, Singapore.

# WORKSHOPS & GUEST LECTURES

**Le, K. N.** (2024, September 4). *Serious Games*. Guest lecture, PSYC 193: Psychology and Gaming, UCSD.

**Le, K. N.** (2024, August 29). *Language in Cognitive Psychology*. Guest lecture, PSYC 105: Cognitive Psychology, UCSD.

**Le, K. N.** (2024, July 24). *Learning and Memory*. Guest lecture, PSYC 2: General Psychology: Biological Foundations, UCSD.

Barner, D., & **Le, K. N.** (2023, August 29). *One-to-one, equality, & number language*. Talk presented at the *Workshop on Equality & Exact Number, UCSD.*

# RESEARCH EXPERIENCE

### Researcher, Language and Cognition Lab                     06/18 – 06/22
*Psychology Department, Stanford University*

- Conducted honors thesis project under Prof. Michael Frank and Alex Carstensen, Ph.D. about cross-cultural and cross-linguistic differences in similarity reasoning between English, Vietnamese and Mandarin speakers (located in US, Vietnam and China respectively).
- Investigated the development of using common ground to resolve ambiguous utterances in children aged 3-5 with Prof. Michael Frank and Manuel Bohn, Ph.D.

### Researcher, ProtoLab                                        06/21 – 12/21
*Cognitive Science Department, University of California, San Diego*

- Carried out human-computer interaction research under Professor Steven Dow to create an ideation interface that uses natural language processing to uncover and present implicit connections with existing ideas.
- Coded and iterated on a working interface using React and Node.js, and assisting with user interviews, literature reviews, and design iterations.

### Researcher, Smart Primer Project                            04/20 – 06/22
*Human-Computer Interaction Group, Stanford University*

- Collaborated with Prof. James Landay to develop self-guided learning applications using narrative, context-aware information, and voice-based agents.
- Designed and programmed interactions between application and user, user interviews, and literature review.

### Research Assistant, interActive Language Processing Lab     01/20 – 12/20
*Linguistics Department, Stanford University*

- Worked with Prof. Judith Degen on a computational linguistic project on factors affecting projectivity of embedded content (valence, arousal, at-issueness).
- Came up with initial hypotheses based on previous work, designed and coded web experiments, and collected and analyzed data.

### Research Assistant, Memory Lab                              06/19 – 09/19
*Psychology Department, Stanford University*

- Conducted neuroscience research with Prof. Anthony Wagner and Kevin Madore, Ph.D. to investigate the effects of attention on encoding and retrieval memory, and elucidate correlations between subject-leveled differences and task-based differences.
- Ran data analysis, including linear mixed-effects models and factor analysis.

### Research Assistant, Modernist Archives Publishing Project   06/19 – 01/21
*Center for Spatial and Textual Analysis (CESTA), Stanford University*

- Collaborated with Prof. Alice Staveley to apply statistical methods (linear mixed-effects models, Pearson correlation, etc.) to analyze Virginia Woolf's order book sales number.
- Made a breakthrough discovery on the potential meaning of a mark used in the order books through these analyses.

### Research Assistant & Science Research Program Fellow        06/15 – 01/16
*Cancer Science Institute, National University of Singapore*

- Worked on molecular biology research in triple-negative breast cancer with Prof. Alan Prem Kumar and Wanpei Cai, Ph.D, looking at a possible modulator of the Wnt/β-catenin signaling pathway, which in turn promotes breast cancer stem cell-like properties.
- Conducted cell culture, RNA knockdown, Western blots, and reverse transcriptase PCR, to identify the effect of knocking down RNA helicase DP103 on Wnt and β-catenin activity, and identify potential positive feedback loop between increased Wnt/β-catenin activity and DP103 expression.

## TEACHING EXPERIENCE

### Teaching Assistant                                          09/23 – present
*Quantitative Methods for Graduate Students, UC San Diego*

Lead sections on experimental methods, statistical analysis, reproducible research, creating online experiments, etc. for first-year PhD students in the Psychology department, and other social science graduate students.

### Teaching Assistant
09/21 – 12/21

*Symbolic Systems 1: Minds and Machines, Stanford University*

Led sections and facilitating discussions of introductory and current concepts of cognitive science (human learning, language acquisition, artificial intelligence, etc.); held office hours and providing feedback for written work; created lesson plans.

### Teaching Coordinator
06/20 – 08/20

*Introduction to Neuroscience, International Youth Neuroscience Association*

Coordinated efforts to create course materials and lesson plans for an introductory course on neuroscience (brain anatomy, action potentials, important brain pathways, etc.); facilitated discussions within small groups on these topics; organizing social and career development events.

### Section Leader
04/20 – 06/20

*Code in Place, Stanford University*

Educated beginners in programming from around the world on basic programming skills and strategies key to kickstarting their journey in programming.

### Teaching Fellow
09/19 – 06/20

*Psychology 1: Introduction to Psychology, Stanford University*

Led sections and facilitated discussions on a wide range of topics in psychology (social, developmental, cognitive, etc.); directed hands-on study of the scientific method, including literature review, hypothesis formulation, experiment and data analysis design, data report, and citation using the APA style. Nominated for the Zimbardo Teaching Prize for Teaching Fellows of Psychology 1.

## MENTORSHIP EXPERIENCE

### Graduate Student Mentor
06/23 – present

*Psychology, UC San Diego*

Mentor undergraduate students interested in psychological research in child development and language acquisition.

### Advising Fellow
09/20 – 06/21

*Symbolic Systems Program, Stanford University*

Advised current and prospective Symbolic Systems students on potential academic and professional paths. Created and maintained the biweekly Symbolic Systems Advising Fellow newsletter, which provides information regarding seminars, job opportunities, and news related to the program. Organized the 2020 Distinguished Speaker Lecture with Dr. Lera Boroditsky (University of California, San Diego).

### Residential Assistant
09/20 – 08/21

*Stanford University*

Supported first-year students through social and academic transition into college. Designed and executed social events that foster belonging and connection between students. Navigated community-building needs and COVID-related policies.

## MENTORED UNDERGRADUATES

- Christine Kwon (Honors Thesis student, 2023-2025)
- Mincong Wu (2023)
- Gabriella Ruiz (2023-2024)
- Jolene Nesnas (2023-2024)
- Sophia Daluraya (2023-2024)
- Nicole Zhou (2024)
- Alli Mulqueen (2024)
- Jiying Liu (2024-2025)

- Longcheng Yang (2024-2025)
- Mia Gordon (2024-2025)
- Amiana van Dyke (2025--)
- Keilani Hernandez (2025--)
- Alexa Hall (2025--)
- Chelsea Melero (2025--)

## TECHNICAL EXPERIENCE

**Stats Advisor**      09/22 – present
*Psychology, UC San Diego*
Provide support on methods and statistics for graduate students in the department. Host workshops on linear mixed-effects models, reproducible reports, and power analysis.

**jsPsych Hackathon**      05/25
*Vassar College*
Contribute to jsPsych community and create plug-ins bridging JATOS and jsPsych to support research on dyads and group interactions. Travel and accommodation awarded by organizers.

## AWARDS & FUNDING

UCSD Graduate and Professional Student Association Travel Grant, 2025: $300
CogSci Diversity & Inclusion Award, 2025: $1000
BUCLD 49 Paula Menyuk Award, 2024: $385
MCLS foundry10 Travel Award, 2024: $625
Anderson Travel Awards, 2023-2025: $2480
CogSci Diversity & Inclusion Award, 2023: $1000
Vice Provost for Undergraduate Education (VPUE) Small Research Grant, 2021: $1500
Robert Glushko Prize for Excellence in Undergraduate Research in Symbolic Systems (for outstanding honors thesis), 2021: $500
K. Jon Barwise Award for Distinguished Contributions to the Symbolic Systems Program (for work as Advising Fellows for the Symbolic Systems Program), 2021: $500
Symbolic Systems Summer Program Research Stipend (for summer research internships), 2019 & 2020: $15,000
Introductory Seminars Excellence Award (for best final project), 2019: $100
Vice Provost for Undergraduate Education (VPUE) Departmental Grant (Linguistics), 2018: $7000

## SKILLS

- Programming languages: JavaScript, CSS, HTML, Python, R, SQL, C++. Programming frameworks: jsPsych, React, Node.js, Express, MongoDB.
- Understanding of intermediate natural language processing concepts, such as sentiment analysis and relation extraction. Familiar with Python packages such as NTLK, NumPy and SciPy.
- Transcription and analysis of recorded spontaneous conversations and other types of recordings with Praat.
- Native speaker of Vietnamese (born and raised in Vietnam). Familiar with French and German.
- Cross-cultural psychology experimental design and execution. Specifically, experience with working with international populations of research participants (Vietnamese and mainland Chinese).