

# **Sangmi Park, Ph.D.**

Curriculum Vitae

August 2024

Postdoctoral Research Associate  
Wisconsin Center for Education Research  
University of Wisconsin – Madison  
Madison, WI 53706

Email: park675@wisc.edu

## **EDUCATION**

- 2024    Ph.D. Developmental Psychology  
Clark University, Worcester, MA  
Dissertation: *Rational Number Understanding Across Development and Mathematical Achievement*  
Advisor: Alena G. Esposito, Ph.D.
- 2021    M.A., Developmental Psychology  
Clark University, Worcester, MA  
Thesis: *Rational Number Representation Predicts Mathematics Achievement: Quantity Matters*  
Advisor: Alena G. Esposito, Ph.D.
- 2018    M.A., Child Psychology and Education  
Sungkyunkwan University, Seoul, South Korea  
Thesis: *Negative Priming Effect in Fraction Magnitude Comparison: A Comparison Between School-Aged Children and Adults*
- 2015    B.A., Psychology  
Sungkyunkwan University, Seoul, South Korea

## **PROFESSIONAL APPOINTMENTS**

- 2024 - present    University of Wisconsin – Madison, Wisconsin Center for Education Research  
Post-doctoral Research Associate  
Primary Mentor: Percival G. Matthews, Ph.D.  
Mentors: Alexandria Viegut, Ph.D., Ana Stephens, Ph.D.,  
Martha W. Alibali, Ph.D.,

## PUBLICATIONS

\*denotes undergraduate student author, †denotes graduate student author

### Manuscripts

**Park, S., & Esposito, A. G.**, (*Revised and resubmitted*). Knowledge organization of discretized non-symbolic fractions and mathematics achievement.

**Park, S., & Esposito, A. G.**, (2024). Rational number representation, math anxiety, and algebra performance in college students. *Cognitive Development*, 69, 101417.  
<https://doi.org/10.1016/j.cogdev.2024.101417>

Esposito, A. G., & **Park, S.** (2023). Learning through bilingual education: Cognitive and academic impacts. In G. Luk, J. A. E. Anderson, & J. G. Grundy (Eds.). *Understanding language and cognition through bilingualism: In honor of Ellen Bialystok*. John Benjamins. (Peer-reviewed). <https://doi.org/10.1075/sibil.64.09esp>

**Park, S.**, \*P. Dotan, L., & Esposito, A. G., (2023). Do executive functions gained through two-way dual-language education translate into math achievement?. *International Journal of Bilingual Education and Bilingualism*, 26(4), 457-471  
<https://doi.org/10.1080/13670050.2022.2116973>

**Park, S.**, & Esposito, A. G., (2022). Rational number conceptualization predicts mathematics achievement: Quantity matters. *Cognitive Development*, 63, 101195.  
<https://doi.org/10.1016/j.cogdev.2022.101195>

## RESEARCH PRESENTATION

\*denotes undergraduate student author, †denotes graduate student author

\*Brame, K., **Park, S.**, †Murray, J., Buroker, V., & Matthews, P. G. (Submitted). *From fractions to formula: Exploring the association between fraction arithmetic and generalized*. Poster presentation for 2024 American Educational Research Association Annual Meeting, Denver, Colorado.

**Park, S.** & Esposito, A. G. (2024, June). *Seeing beyond the surface: Understanding non-symbolic rational numbers by quantity and its relation to math achievement*. Lightning Talk presented at the 2024 Mathematical Cognition and Learning Society, Washington D.C.

\*Brame, K., **Park, S.**, †Murray, J., Buroker, V., & Matthews, P. G. (2024, April). *From fractions to formula: Exploring the association between fraction arithmetic and generalized*. Poster presented at the 2024 SERP Research Poster Symposium, University of Wisconsin – Madison, Madison, WI

\*Adams, D., \*Sideris, P., **Park, S.**, Buroker, V., & Matthews, P. G. (2024, April). *Fraction schemes and magnitude as predictors of algebraic functional thinking*. Poster presented at the 2024 Undergraduate Research Symposium, University of Wisconsin – Madison, Madison, WI

- \*Barretto, G., **Park, S.**, & Esposito, A. G. (2023, October). *Fraction knowledge as a partial mediator between inhibitory control and math achievement*. Poster presented at the ClarkFEST Fall 2023, Clark University, Worcester, MA
- Park, S.** & Esposito, A. G. (2023, August). *What can you do and what do you do: Important differences for math learning and educational practice*. Individual paper presented at the 14<sup>th</sup> biennial meeting of the Society for Applied Research in Memory and Cognition, Nagoya, Japan
- Park, S.** & Esposito, A. G. (2023, March). *Integrating quantity across decimals and fractions is essential, but not necessarily linear representation*. Poster presented at the 2023 Society for Research in Child Development Biennial Meeting, Salt Lake City, UT
- Park, S.** & Esposito, A. G. (2023, March). *After-school hours: Technology and homework time relate to academic performance, Part III*. Symposium at the annual meeting of the Eastern Psychological Association, Boston, MA
- \*Johnson, H., **Park, S.**, & Esposito, A. G. (2022, April). *What predicts math anxiety and math achievement? Spontaneous conceptualization of rational number as quantities*. Poster presented at the Academic Spree Day of Clark University, Worcester, MA
- Park, S.** & Esposito, A. G. (2022, April). *Symbolic versus non-symbolic fractions: Relation of quantitative organization to math achievement and math anxiety*. Poster presented at the 12<sup>th</sup> biannual meeting of the Cognitive Development Society, Madison, WI
- Park, S.** & Esposito, A. G. (2021, April). *Rationale of rational numbers: Semantic organization of rational numbers relates to mathematics achievement*. Poster presented at the 2021 Society for Research in Child Development Virtual Biennial Meeting.
- Park, S.** & Esposito, A. G. (2021, April). *A mechanism for advanced math achievement in bilingual education: Executive functions mediate the relation between educational program and math performance*. Poster presented at the 2021 Society for Research in Child Development Virtual Biennial Meeting.
- \*Dotan, L., **Park, S.**, & Esposito, A. G. (2020, May). *Switching It Up: Bilingual Education Fostering Cognitive Flexibility and Math Achievement*. Poster presented at the Academic Spree Day of Clark University, Worcester, MA
- \*Kubiak, A.G., **Park, S.**, & Esposito, A. G. (2020, May). *Predictors of Success in Post-Secondary Mathematics*. Poster presented at the Academic Spree Day of Clark University, Worcester, MA
- Park, S.**, \*Kubiak, A. G., \*Orlov, J. A., & Esposito, A. G. (2019, October). *The rationale of rational number: Children's organization of fractions and decimals*. Poster presented at the 11<sup>th</sup> biannual meeting of the Cognitive Development Society, Louisville, KY

### **AWARDS, GRANTS AND NOMINATIONS**

2023	The Duolingo Dissertation Grant in Elementary Mathematics Learning	\$5,000
2022-23	Psi Chi Summer Graduate Research Grants	\$1,440
2023-24	The Frances L. Hiatt Diversity Fellowship in Psychology <i>Clark University</i>	\$31,525
2022-23	Graduate Student Council Travel Award	\$400

	<i>Clark University</i>	
2020-21	Monte M. Bliss Award	
	<i>Clark University</i>	
2021	Finalist for 2021 Student and Early Career Council Poster Competition	
	<i>Society for Research in Child Development</i>	
2016	National Humanities and Social Sciences Graduate Research Scholarship	
	<i>Korea Student Aid Foundation</i>	\$7,500
2016	Simsan Scholarship	
	<i>Sungkyunkwan University</i>	\$1,600
2016	BK21 Scholarship	
	<i>Sungkyunkwan University</i>	\$1,500

## **TEACHING EXPERIENCE**

### **Instructor**

2023 Developmental Psychology Clark University

### **Teaching Assistant**

2023 Statistics Clark University  
 2022 Intro to Cognition Clark University  
 2022 Psychology of Learning Clark University  
 2021 Research Methods Clark University  
 2021 Statistics Clark University  
 2020 Lifespan Development Across Lifespan Clark University  
 2017 Infant Development Sungkyunkwan University

### **Mentoring**

#### University of Wisconsin – Madison

2024 Karma Brame Intern, Summer Education Research Program (SERP)  
 2024 Isaiah Stevens Intern, Summer Education Research Program (SERP)  
 2024 Devon Adams Undergraduate Research Scholar Project  
 2024 Paige Sideris Undergraduate Research Scholar Project

#### Clark University

2024 Daniel Lurie Undergraduate Capstone Project  
 2023 Guan Barretto Clark Fall Fest Project  
 2022 Hallie Johnson Undergraduate Capstone Project  
 2021 Carly Bernstein Undergraduate Capstone Project  
 2021 Julia Orlov Undergraduate Capstone Project  
 2019 Aryana Kubiak Undergraduate Capstone Project  
 2019 Lital Dotan Undergraduate Capstone Project

## **RESEARCH EXPERIENCE**

### **Postdoctoral Researcher**

2024-present      Mathematics Education Learning and Developmental Lab  
Cognitive Development and Communication Lab  
*University of Wisconsin – Madison, School of Education*

### **Graduate Researcher**

2019-2024      Learning, Language, and Cognition Lab  
*Clark University*

### **Research Assistant**

2019-2020      Learning, Language, and Cognition Lab      Clark University  
2018-2019      Korea Research Institute for Vocational Education and Training  
2015-2016      Brain Korea 21 Plus Project      Sungkyunkwan University

## **ASSOCIATION MEMBERSHIP**

American Educational Research Association (AERA)  
Cognitive Development Society (CDS)  
The Mathematical Cognition and Learning Society (MCLS)  
Psi Chi International Honors Society  
Society of Applied Research in Memory and Cognition (SARMAC)  
Society for Research in Child Development (SRCDD)

## **SERVICE TO COMMUNITY**

2023      Ad hoc reviewer, *Cognitive Development*  
2023      Honors Thesis Defense Committee, Clark University  
2022      Presenter, APA/Clark University Workshop for High School Teachers  
2022      Ad hoc reviewer, *Learning and Individual Differences*  
2021-2022      Developmental Chair-Student Rep, Clark University

## **RELEVANT COURSE WORK**

### **Clark University**

Advanced Graduate Statistics  
Advanced Cognitive Development  
Culture and Human Development  
Developmental Theories  
Intersectional Psychology  
Neuropsychology  
Social and Emotional Development  
Statistical Methods

**Sungkyunkwan University**

Advanced Cognitive Psychology

Developmental Neuroscience

Multivariate Data Analysis

Seminar on Socio-emotional Development