

Karima Elgamal

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EDUCATION

- 2024 — 2029 **Developmental Psychology, Ph.D., Boston University**
Advisor: Deborah Kelemen
- 2024 — 2025 **Developmental Psychology, M.A., Boston University**
Advisor: Deborah Kelemen
- 2023 — 2024 **Psychological Sciences, M.A., Montclair State University**
Advisor: Laura Lakusta
- 2019 — 2023 **Psychology, B.A., Montclair State University**
Major: Psychology
Minor: Cognitive Science
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GRANTS, HONORS & SCHOLARSHIPS

- Fall 2025 **Graduate Student Organization Conference Grant - \$1,000**
The Graduate Student Organization at Boston University awarded a grant towards funding conference travel expenses.
- Fall 2024 **Boston University Dean's Fellowship**
The Graduate School at Boston University provided full funding (stipend amount) during the fall semester without any additional service requirement, such as working as a teacher's assistant. This allows PhD candidates to dedicate more time to research.
- Spring 2024 **Student Research and Conference Travel Fund Award - \$300**
The Graduate School at Montclair State University funds graduate students to participate in professional development for the current academic year. This was awarded to fund my presentation at the Cognitive Development Society conference in March 2024.
- Fall 2023 **Diversity Travel Fellowship**
The Diversity Travel Fellowship was awarded by the Boston University Conference on Language Development to cover transportation, hotel accommodation, and registration costs associated with attending the conference.
- 2022 — 2023 **American Psychological Foundation Sharon Stephens Brehm Scholarship - \$5,000**
The Sharon Stephens Brehm Undergraduate Psychology Scholarships recognizes outstanding psychology undergraduate students who demonstrate financial need.

- 2022 — 2023 **Montclair State University, Separately Budgeted Research Funding Award - \$5,000**
Grant provided during undergraduate education to aid funding for collaborative projects while working closely with Dr. Lakusta in the Cognitive and Language Development Lab.
- 2022 — 2023 **Montclair State University, Student Faculty Scholarship Award - \$2,000**
Grant awarded during undergraduate education to aid funding for my master's thesis while working in the Cognitive and Language Development Lab.
- Fall 2022 **Orpha M. Lutz Scholarship - \$645**
Candidates are nominated by full-time faculty members in the Psychology Department for excellence in research. The faculty committee then chooses recipients.
- Fall 2021 **Orpha M. Lutz Scholarship - \$880**
- Fall 2020 **Nancy Walsh Scholarship - \$430**
The scholarship is used to assist psychology majors. Scholarship awarded is determined by the Department Chair and given to students with the highest grade point average.
- 2019 — 2024 **Montclair State University Dean's List, College of Arts & Sciences**
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RESEARCH EXPERIENCE

- Sept '24 — Present **Child Cognition Lab, Boston University**
PhD Student
- Currently working under the mentorship of Dr. Deborah Kelemen.
 - Conducting first year research project on children's explanatory reasoning, particularly their preferences for mechanistic vs. teleological explanations and the levels of detail within various explanations they prefer, as well as generalize and learn from.
 - Designing and implementing developmental studies examining how explanation supports learning and conceptual change.
 - Developing experimental stimuli, IRB amendments, and managing project logistics for studies involving preschool- and school-aged children.
 - Running online testing sessions; responsible for participant recruitment, data collection, and data management.
 - Analyzing data using R (including mixed-effects models and logistic regressions).
 - Collaborating with previous lab members and mentor on manuscript preparation.
 - Leading and contributing to lab meetings by presenting project updates and critically reviewing developmental psychology literature.
- Nov '19 — Sept '24 **Cognitive and Language Developmental Lab, Montclair State University**
Research Assistant
- Worked closely with Dr. Laura Lakusta on various research projects during undergraduate degree, as well as during the completion of my master's degree. In addition, I collaborated with other researchers such as Dr. Paul Muentener from Tufts University and Dr. Barbara Landau from

Johns Hopkins University, during my time in this lab. Designed research studies (submitted IRBs, literature reviews, stimuli creation, etc.)

- Gained experience writing grant proposals, as well as submissions for poster presentations and talks.
- Ran online and in-person experiments with children of various ages, as young as 20 months old.
- Was responsible for entering and managing databases with various platforms; Excel, Google Sheets, Word, R, Qualtrics, etc. As well as coded in Datavyu for eye-tracking studies.
- Gained experience presenting data and research findings from my personal research and other scholars in the field during lab meetings and/or conferences.
- Recruited child participants through in-person fairs, social media, and LookIt.
- Completed statistical analysis using various platforms; R, SPSS, Jamovi.
- Attended weekly lab meetings, where I presented data findings, research updates, and relevant published papers.

Jan '21 — Feb '24

Spatial Development Collaboration Study with Montclair & University of Alabama
Research Assistant

- Managed and oversaw all data collection.
- Conducted remote spatial assessments on children and adults with Down syndrome and typically developing participants. Meeting twice a week, for 4-5 months with participants.
- Gained experience conducting standardized tests such as the Matrices subtest of the KBIT 2 and the Peabody Picture Vocabulary Test (PPVT).
- Created flyers for postings and handled social media recruitment.
- Used Excel frequently to code data, create graphs, and analyze the data.

Project Coordinator

- From February of 2023 onward I was promoted to a graduate assistant position as a project manager of this study. Tasks included all previously mentioned tasks as well as the following.
- Contacted and scheduled all participants.
- Oversaw all participants' tasks, keeping track of weekly assessments and tasks done with participants.
- Scheduled tasks for research assistants to be completed with participants.
- Trained and supervised undergraduate research assistants.

Jan '23 — Dec '23

Kessler Foundation Rocco Ortenzio Neuroimaging Center Internship
Research Intern

- Worked under the supervision of Dr. Glenn Wylie and Dr. Brain Yao at the Kessler Foundation.
- Specifically worked on a cognitive fatigue study in individuals with multiple sclerosis.
- Coding work done in R was my primary task, using the software to automatically code and score assessments such as the Big Five Personality Test, the Misinformation Susceptibility Test (MIST), the State-Trait Anxiety Inventory (STAI), etc.
- I worked in R to analyze data from a cognitive fatigue task in those with Multiple Sclerosis.
- Aided with fMRI images and shadowed MRI technicians when participants conducted tasks during scannings.

- Scored neuropsychological assessments such as the Brief Visuospatial Memory Test (BVRT), Controlled Oral Word Association Test (COWAT), Test of Memory Malingering (TOMM), Wechsler Abbreviated Scale of Intelligence (WASI-II), etc.

CAMPUS INVOLVEMENT/ VOLUNTEER EXPERIENCE

Fall 2025 — Present

Undergraduate Professional Development Workshop Committee Committee Member

- Collaborated with faculty and graduate student organizers to design and facilitate professional development workshops for undergraduate psychology students.
- Focused on research skills, graduate school preparation, and academic communication.

2022 — 2023

Out Montclair: Pride Sponsorship Program Coordinator Volunteer

- Always positively represented Montclair Pride, including when working with sponsors, vendors, volunteers, and staff.
- Developed and maintained relationships with key sponsors/vendors.
- Performed complex administrative duties for the sponsorship team, exercising confidentiality and independent discretion.
- Managed sponsorship email accounts, communicated with sponsors, and answered event-related questions.
- Tracked sponsor materials such as logos and permits, as well as fees and payments.

2020 — 2022

Mentor Collective Montclair Volunteer Mentor

- Worked one-on-one with first-year students, providing them with a multitude of advice but maintaining a focus on discussing time management, mental health, and encouraging social interactions in clubs and classes.
- Provided a safe environment for vulnerable students to seek advice, while serving as a confidant and support system.

PUBLICATIONS

Conference Papers

Elgamal, K., Brown, S., Kelemen, D. (2026). Explaining “Why” Matters: Mechanistic Explanations of Misconceptions Promote Learning of Counterintuitive Conceptual Content. Proceedings of the 48th Annual Conference of the Cognitive Science Society. Rio, Brazil: Cognitive Science Society.

Elgamal, K., Pasquinelli, R., Lakusta, L., Landau, B. (2025). Spatial language and intuitive physics in children and adults: It’s not so simple. Proceedings of the 47th Annual Conference of the Cognitive Science Society. San Francisco, California: Cognitive Science Society.

Elgamal, K., Muentener, P., Lakusta, L. (2024). Explanations of Mechanistic Support: The Development of Children's Causal Language. Proceedings of the 48th Annual Boston University Conference on Language Development. Boston, Massachusetts: Boston University Conference on Language Development.

Journal Publications

Elgamal, K., Muentener, P., Lakusta, L. (2025). Development of Mechanical Spatial Language of Support: Insight from 3- to 6-year-old Children's Explanations. *Journal of Cognitive Development*, 74, 101581.

Lakusta, L., Wefferling, **Elgamal, K.,** & Landau, B. (2024) "Dividing the labor": Lexical verbs and the linguistic encoding of physical support in 2- to 4.5- year-old children. *Journal of Experimental Child Psychology*, 238, 105803.

INVITED TALKS

Elgamal, K. (May, 2026). *Exploring Children's Explanation Preferences: An Examination of Explanation Types & Detail Levels*. Linguistics Department, Boston University, Boston.

Elgamal, K. (Feb, 2025). *Explaining Why Matters: Mechanistic Explanations of Misconceptions Promote Learning of Counterintuitive Conceptual Content*. Developmental Science Colloquium, Boston University, Boston.

Elgamal, K. (Aug, 2025). *Development of Mechanical Spatial Language of Support: Insight from 3- to 6-year-old children's explanations*. Early Learning and Cognition Lab, University of California, San Diego.

Elgamal, K. (March, 2025). *Exploring Explanation Detail & Explanation Type Preferences*. Developmental Science Colloquium, Boston University, Boston.

Elgamal, K. (Feb, 2025). *Exploring Explanation Detail*. Social Development and Learning Lab, Boston University, Boston.

POSTER PRESENTATIONS

Elgamal, K., Brown, S., Kelemen, D. *Explaining "Why" Matters: Mechanistic Explanations of Misconceptions Promote Learning of Counterintuitive Conceptual Content*. Poster presented at: The 48th Annual Conference of the Cognitive Science Society. 2026 July 22-July 25; Rio de Janeiro, Brazil.

Elgamal, K., Vaynshtok, N., Gupta, G., Lynch, L., Kelemen, D. *Childhood Standards for Explanatory Quality: Causality Over Elaboration?* Poster presented at: Society for Research in Child Development Biennial Meeting. 2026 April 9-12; Montreal, CAN.

Vaynshtok, N. **Elgamal, K.,** Mabud, F., Gupta, G., Lynch, L., Kelemen, D. *How Does Exposure to Explanatory Type Shape Children's Reasoning? Evidence from 7-to 9-Year-Olds' Explanation Production*. Poster presented at: Eastern Psychological Association. 2026 Feb 26-28; Boston, MA.

Elgamal, K., Pasquinelli, R., Lakusta, L., Landau, B. *Spatial language and intuitive physics in children and adults: It's not so simple*. Poster presented at: The 47th Annual Conference of the Cognitive Science Society. 2025 July 30-Aug 2; San Francisco, CA.

Elgamal, K., Muentener, P., Lakusta, L. *Children's Causal Explanations to Inconsistent Events: The Development of Mechanical Support Language*. Poster presented at: Society for Research in Child Development Biennial Meeting. 2025 May 1-3; Minneapolis, MN.

Elgamal, K., Grinshpun, S., Khera, K., Mo, M., Zakrzewski, S., Baker, M., Yang, Y., Merrill, E. *The improvement of spatial abilities assessed in Down Syndrome youth*. Poster presented at the Cognitive Developmental Society Conference. 2024 March; Pasadena, CA.

Elgamal, K., Muentener, P., Lakusta, L. *Explanations of Mechanistic Support: The Development of Children's Causal Language*. Poster presented at: Boston University Conference on Language Development. 2023 November 2-5; Boston, MA.

Elgamal, K., Grinshpun, S., Smith, A., Hauss, J., Zakrzewski, S., Khera, K., Mo, M., Bang, S., Baker, M., Kaur, A., Yang, Y., Merrill, E. *Spatial Perspective Taking Abilities Assessed in Down Syndrome Youth*. Poster presented at: Montclair State University Student Research Symposium. 2023 April 26; Montclair, NJ.

Elgamal, K., Muentener, P., Lakusta, L. *Why did that happen? Children's causal explanations of mechanical support events?* Poster presented at: Society for Research in Child Development Biennial Meeting. 2023 March 23-25; Salt Lake City, UT.

Elgamal, K., Ferrer, E., Spivak, S., Lakusta, L. *Children's Explanations of Events: Inconsistencies in Adhesion Configurations*. Poster presented at: Undergraduate Poster Session at the Annual Eastern Psychological Association Meeting. 2022 March 3-5; New York City, NY.

Grinshpun, S., **Elgamal, K.**, Baker, M., Zakrzewski, S., Mo, M., Khera, K., Kaur, A., Yang, Y., Conners, F., Roskos, B., Merrill, E. *Training mental rotation in children*. Poster presented at the Cognitive Developmental Society Conference. 2024 March; Pasadena, CA.

Zakrzewski, S., Grinshpun, S., **Elgamal, K.**, Baker, M., Khera, K., Mo, M., Angon-Martinez, J., Ashley, K., Infante, C., Kaur, A., Yang, Y., Merrill, E. *Training Mental Rotation Abilities Using Puzzle and Block Play in Adolescents and Adults with Down Syndrome*. Poster presented at the 2024 Gatlinburg Conference. 2024 April; Kansas City, MO.

Baker, M., Grinshpun, S., **Elgamal, K.**, Zakrzewski, S., Khera, K., Merrill, E., Yang, Y. *Efficacy of Indirect Perspective-Taking Training in Typically Developing Children*. Poster presented at the Cognitive Developmental Society Conference. 2024 March; Pasadena, CA.

Grinshpun, S., Smith, A., **Elgamal, K.**, Sandy, A., Sliman, H., Zakrzewski, S., Yang, Y., Conners, F., Roskos, B., Merrill, E. *Play Time!: Using Block and Puzzle Play to Train Mental Rotation Abilities in Children*. Poster presented at: Society for Research in Child Development Biennial Meeting. 2023 March 23-25; Salt Lake City, UT.

Ferrer, E., Spivak, S., **Elgamal, K.**, Lakusta, L. *Can Surprise Foster Learning of Novel Verbs that Refer to Spatial Support?* Poster presented at: Undergraduate Poster Session at the Annual Eastern Psychological Association Meeting. 2022 March 3-5; New York City, NY.

Grinshpun, S., Smith, A., Dahimene, N., **Elgamal, K.**, et al. *Training perspective taking and mental rotation abilities in typically and atypically developing children and adolescents: A demonstration study.* Poster presented at: Cognitive Development Society Bi-Ennial Conference. 2022 April 21-23; Madison, WI.

Zakrzewski, S., Grinshpun, S., Smith, A., Hauss, J., **Elgamal, K.**, Khera, K., Mo, M., Bang, S., Baker, M., Kaur, A., Yang, Y., Merrill, E. *Mental rotation abilities improved through training in Youth and Adolescents with Down Syndrome.* Poster presented at: Montclair State University Student Research Symposium. 2023 April 26; Montclair, NJ.

Lakusta, L., Wodzinski, A., Williams, N. Hussein, Y. Hauss, J. **Elgamal, K.** Landau, B. (2022, July). *Learning the Language of Designed Actions of Physical Support.* Poster presented in thematic poster symposia in L. Lakusta (chair), Human Action Understanding: The Development of Performance, Language, and Reasoning. XXIII ICIS 2022 Congress, Ottawa, Canada.

L A N G U A G E

Spanish

Native/Bilingual Proficiency
