

**DR. ISABELLA STARLING ALVES**

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**Education**

- 2021 **Ph.D. in Educational Psychology**  
Human Development Area, Minor: Mind, Brain, and Education  
University of Wisconsin Madison, USA.  
*Thesis: Getting Past the Doorman: Longitudinal Investigations of the Predictors and Consequences of Fraction Skills*  
*Advisor: Dr. Edward M. Hubbard*
- 2017 **M.S. in Neurosciences**  
Universidade Federal de Minas Gerais, Brazil.  
*Dissertation: Nonsymbolic and symbolic magnitude processing in children with mathematical difficulties*  
*Advisors: Dr. Vitor Geraldi Haase & Dr. Renato Bortoloti*
- 2014 **B.A. in Psychology with Clinical Psychology License**  
Minor: Human Development and Psychological Assessment  
Universidade Federal de Minas Gerais, Brazil.
- 2013 **Exchange Student**  
University of Wisconsin Madison, USA.

**Professional Experience***Research*

- 2025 – Current **Assistant Professor**  
Department of Educational Psychology  
University of Nebraska–Lincoln, USA
- 2023 – 2025 **Postdoctoral Scholar**  
The Number Lab  
Vanderbilt University, USA  
*PI: Dr. Eric D. Wilkey*
- 2022 – 2025 **Behavioral Sciences Consultant**  
Familia+, Bernard Van Leer Foundation/Espaço Àra, Brazil.
- 2021 – 2022 **Research & Practice Coordinator**  
Instituto Alfa e Beto (educational organization), Brazil.
- 2017 – 2021 **Project Assistant**  
Educational Neuroscience Lab  
University of Wisconsin Madison, USA.  
*PI: Dr. Edward M. Hubbard*
- 2009 – 2017 **Project Assistant**  
Developmental Neuropsychology Lab  
Universidade Federal de Minas Gerais, Brazil.  
*PI: Dr. Vitor G. Haase*

2010                    **Research Assistant**  
Individual Differences Assessment Lab  
Universidade Federal de Minas Gerais, Brazil.  
*PI: Dr. Elizabeth do Nascimento*

## Teaching

2024                    **Guest Lecturer - Human Development**  
*Course (undergraduate level): PSY-PC 2250 Cognitive Aspects of Human Development*  
Vanderbilt University, USA.

2022 – 2023           **Instructor – Educational Neurosciences**  
*Course (graduate level): Emotion and Cognition in the Human Brain*  
Pontifical Catholic University of Minas Gerais, Brazil.

2021 – 2022           **Instructor – Psychology**  
*Courses (undergraduate level): 1. Experimental Psychology, 2. Psychological Assessment Practice, 3. Neuropsychology, 4. Motivation, Emotion, Intelligence, and Creativity, 5. Neuropsychology Supervision*  
Doctum College, Brazil.

2019 – 2020           **Teaching Assistant – Educational Psychology**  
*Courses (graduate level): 1. EdPsych 326: Mind, Brain, and Education, 2. EdPsych 320: Human Development in Infancy and Childhood*  
University of Wisconsin Madison, USA.

2016 –2017           **Teaching Assistant – Psychology**  
*Course (graduate level): Neuroscience for teachers of children with special needs*  
Universidade Federal de Minas Gerais, Brazil.

Spring 2014           **Teaching Assistant – Psychology**  
*Course (undergraduate level): Clinical practice*  
Universidade Federal de Minas Gerais, Brazil.

Spring 2011           **Teaching Assistant – Psychology**  
*Course (undergraduate level): Cognitive psychology*  
Universidade Federal de Minas Gerais, Brazil.

Spring 2010           **Teaching Assistant – Psychology**  
*Course (undergraduate level): Quantitative methods*  
Universidade Federal de Minas Gerais, Brazil.

## Clinical Psychology

2016 –2017           **Clinical Neuropsychologist**  
Oficina da Imaginação, Belo Horizonte, MG, Brazil.  
*Neuropsychological assessment, CBT, Parent Training*

2015 – 2017      **Clinical Neuropsychologist**  
NUMERO, UFMG, Belo Horizonte, MG, Brazil.  
*Neuropsychological assessment, diagnosis, cognitive training*

## Awards, Honors, and Sponsorships

### *Sponsorships*

2017 – 2022      Full Ph.D. scholarship from CAPES (Brazilian Ministry of Education Coordination for the Improvement of Higher Education Personnel).

2015 – 2017      Full M.S. scholarship from CAPES.

2014 – 2015      Research Funding from FAPEMIG.  
Research assistant in the project “Neurodevelopment and genetics”.  
Developmental Neuropsychology Lab  
Universidade Federal de Minas Gerais, Brazil.

2013 – 2013      Scholarship from the Science without Borders Program – CAPES  
Visiting International Student  
University of Wisconsin Madison, USA.

2012 – 2012      Research Funding from CNPq.  
Research assistant in the project “Neuropsychological intervention and parent training for children with math learning disabilities”.  
Developmental Neuropsychology Lab  
Universidade Federal de Minas Gerais, Brazil.

2011 – 2012      Research Funding from CNPq.  
Research assistant in the project “Developmental dyscalculia in school-age children: population screening and cognitive profile and molecular-genetics”.  
Developmental Neuropsychology Lab  
Universidade Federal de Minas Gerais, Brazil.

2011 – 2011      Research Funding from PBEXT.  
Project Assistant in the project “Developmental neuropsychology: intervention for humor disorders and learning disabilities”.  
Developmental Neuropsychology Lab  
Universidade Federal de Minas Gerais, Brazil.

### *Awards and Honors*

2024              Research Pilot Funding for the Beyond Integers Project (\$1,980.00)  
VICTR award in StarBRITE  
Vanderbilt University  
Nashville, TN, USA.

2021              Best poster/presentation honor  
“Numeracy and COVID-19”  
IBNEC, Brazil.

|      |                                                                                                                                                                                  |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2020 | 2020 AERA-NSF Institute on Statistical Analysis<br>California, USA.                                                                                                              |
| 2019 | Conference Travel Award: 2019 MCLS (Canada)<br>Wisconsin Scholarship Hub (WiSH), University of Wisconsin Madison, WI, USA.                                                       |
| 2015 | 2 <sup>nd</sup> Advanced Studies in Neurosciences<br>Universidade Federal do Rio Grande do Sul, Brazil.                                                                          |
| 2015 | Best poster honor “Mothers’ educational attainment is related to math anxiety in children”<br>III Encontro Mineiro de Neuropsicologia, Belo Horizonte, Minas Gerais, Brazil.     |
| 2014 | XIV Summer Course – Psychobiology<br>Universidade Federal de São Paulo, Brazil.                                                                                                  |
| 2014 | Best poster honor “Numerosity in Williams Syndrome”<br>XXIII Semana de Iniciação Científica da UFMG, Belo Horizonte, Brazil.                                                     |
| 2013 | Best poster honor “Neuropsychology Assessment in Williams Syndrome: From research to support group”<br>XVI Encontro de Extensão da UFMG, Belo Horizonte, Brazil.                 |
| 2012 | Best poster honor “Cognitive Training for numeracy in Turner’s syndrome – a case study”<br>I Congresso Mineiro de Neuropsicologia da SBNp, Belo Horizonte, Brazil.               |
| 2012 | Best research report for the Humanities Department “Different ANS measures contribute independently to arithmetic achievement”.<br>Universidade Federal de Minas Gerais, Brazil. |
| 2011 | Best poster honor “Different ANS measures contribute independently to arithmetic achievement”<br>XX Semana de Iniciação Científica da UFMG, Belo Horizonte, Brazil.              |
| 2011 | Best poster honor “Association between Val158met COMT gene and cognitive functions: pilot study”.<br>XX Semana de Iniciação Científica da UFMG, Belo Horizonte, Brazil.          |

## Publications and Presentations

### Peer-reviewed Publications

*\*Indicates undergraduate research assistant*

19. **Starling-Alves, I.**, Shanley, L., Cook, M.A., Sabb, F. W., Smith, J., Clarke, B. & Wilkey, E. D. (in-press). Children identified for classroom-based math support show altered resting-state connectivity in parietal brain regions. *Scientific Reports*.
18. **Starling-Alves, I.**, Peters, L., & Wilkey, E. D. (2025). Beyond the sum of their parts: a multi-dimensional approach to dyscalculia-dyslexia comorbidity integrating studies of the brain, behavior, and genetics. *Developmental Cognitive Neuroscience*, 72, 101510.
17. **Starling-Alves, I.**, Gomides, M.R.A., Ribeiro, D., Haase, V.G., & Hubbard, E.M. (2024). From one half

to 12th: fraction writing in children and adult education students. *Journal of Numerical Cognition*, 10, 1-23.

16. **Starling-Alves, I.**, Russell-Lasalandra, L. L.\*, Lau, N. T. T., Paiva, G. M., Haase, V.G., & Wilkey, E. D. (2024). Number and domain both affect the relation between executive function and mathematics achievement: A study of children's executive function with and without numbers. *Developmental Psychology*. <https://doi.org/10.1037/dev0001814>
15. **Starling-Alves, I.**, Hirata, G., & Oliveira, J. B. A. (2023). Covid-19 school closures negatively impacted Elementary-school students' reading comprehension and reading fluency skills. *International Journal of Educational Development*, 102753. <https://doi.org/10.1016/j.ijedudev.2023.102753>
14. Mielicki, M. K., Wilkey, E. D., Scheibe, D. A., Fitzsimmons, C. J., Sidney, P. G., Bellon, E., Ribner, A. D., Soltanlou, M., **Starling-Alves, I.**, Coolen, I., Ansari, D., & Thompson, C. A. (2023). Task features change the relation between math anxiety and number line estimation performance with rational numbers: Two large-scale online studies. *Journal of Experimental Psychology: General*, 152(7), 2094–2117. <https://doi.org/10.1037/xge0001382>
13. Araujo, J. B. O. & **Starling-Alves, I.** (2022). A relação entre fluência em leitura e compreensão de sentença – evidências para falantes do Português Brasileiro. *Cadernos de Linguística*, 3 (1), e631. <https://doi.org/10.25189/2675-4916.2022.V3.N1.ID631>
12. **Starling-Alves, I.**, Wronski, M. R.\*, & Hubbard, E. M. (2022). Math anxiety differentially impairs symbolic, but not nonsymbolic, fraction skills across development. *Annals of the New York Academy of Sciences*, 1509(1), 113-129. <https://doi.org/10.1111/nyas.14715>
11. Lau, N. T., Wilkey, E. D., Soltanlou, M., Lagacé Cusiak, R., Peters, L., Tremblay, P., ... & Ansari, D. (2022). Numeracy and COVID-19: examining interrelationships between numeracy, health numeracy and behaviour. *Royal Society open science*, 9(3), 201303. <https://doi.org/10.1098/rsos.201303>
10. **Starling-Alves, I.**, Júlio-Costa, A., Moura, R. J. D., & Haase, V. G. (2021). Nonsymbolic and symbolic numerical magnitude processing in the Brazilian children with mathematics difficulties. *Dementia & Neuropsychologia*, 15, 524-532. <https://doi.org/10.1590/1980-57642021dn15-040013>
09. Gomides, M. R. A., **Starling-Alves, I.**, Paiva, G.M., Caldeira, L.S., Aichinger, A.L.P.N., Carvalho, M.R. S., Bahnmueller, J., Moeller, K., Lopes-Silva, J.B., & Haase, V.G. (2021). The quandary of diagnosing mathematical difficulties in a generally low performing population. *Dementia & Neuropsychologia*, 15, 267-274. <https://doi.org/10.1590/1980-57642021dn15-020015>
08. Gomides, M. R. A., Martins, G. A., **Starling-Alves, I.**, Júlio-Costa, A., Jaeger, A., & Haase, V. G. (2018). Heterogeneity of math difficulties and its implications for interventions in multiplication skills. *Dementia & Neuropsychologia*, 12, 256-263. <https://doi.org/10.1590/1980-57642018dn12-030006>
07. Haase, V. G. & **Starling-Alves, I.** (2017). In search of the moral-psychological and neuroevolutionary basis of political partisanship. *Dementia & Neuropsychologia*, 11, 15-17. <https://doi.org/10.1590/1980-57642016dn11-010004>
06. Júlio-Costa, A., **Starling-Alves, I.**, Lopes-Silva, J. B., Wood, G., & Haase, V. G. (2015). Stable measures of number sense accuracy in math learning disability: Is it time to proceed from basic science to clinical application?. *PsyCh journal*, 4(4), 218-225. <https://doi.org/10.1002/pchj.114>
05. Haase, V. G., Júlio-Costa, A., Lopes-Silva, J. B., **Starling-Alves, I.**, Antunes, A. M., Pinheiro-Chagas, P., & Wood, G. (2014). Contributions from specific and general factors to unique deficits: two

cases of mathematics learning difficulties. *Frontiers in Psychology*, 5, 102. <https://doi.org/10.3389/fpsyg.2014.00102>

04. Pinheiro-Chagas, P., Wood, G., Knops, A., Krinzinger, H., Lonnemann, J., **Starling-Alves, I.**, Willmes, K., & Haase, V. G. (2014). In how many ways is the approximate number system associated with exact calculation?. *PLoS one*, 9, e111155. <https://doi.org/10.1371/journal.pone.0111155>
03. Antunes, A. M., Costa, A. J., **Starling-Alves, I.**, Paiva, G. M., & Haase, V. G. (2013). Reabilitação neuropsicológica do transtorno de aprendizagem da matemática na síndrome de Turner: um estudo de caso. *Neuropsicologia Latinoamericana*, 66-75. <http://dx.doi.org/10.5579/rnl.2013.0140>
02. Haase, V.G., Costa, A. J., Antunes, A.M., & **Starling-Alves, I.** (2012). Heterogeneidade cognitiva nas dificuldades de aprendizagem da matemática: uma revisão bibliográfica. *Psicologia em Pesquisa*, 139-150. <http://dx.doi.org/10.5327/Z1982-12472012000200007>
01. Rivero, T. S., Querino, E. H. G., & **Starling-Alves, I.** (2012). Videogame: seu impacto na atenção, percepção e funções executivas. *Neuropsicologia Latinoamericana*, 4(3), 38-52.

### Edited Books

01. Júlio-Costa, A., **Starling-Alves, I.**, & Antunes, A. M. (Org., 2023). *Mild for whom? Level 1 Autism Spectrum Disorder (ASD) (Publication in Portuguese - Level para quem? Transtorno do Espectro Autista (ASD) Nível 1 de Suporte)*. Belo Horizonte: Editora Ampla.
02. Gomides, M., **Starling-Alves, I.**, & Santos, F. H. (Org., 2023). *Brain and Maths in Ibero-America* (Vol. 282). Elsevier.

### Chapters in Edited Books

09. **Starling-Alves, I.**, Júlio-Costa, A., & Antunes, A.M. (2023). Transtorno do Espectro Autista nível 1 e disfunção executiva. In: Júlio-Costa, A., Starling-Alves, I., & Antunes, A. M. (Org.). *Leve para quem? Transtorno do Espectro Autista nível 1 de suporte*. Belo Horizonte: Editora Ampla
08. **Starling-Alves, I.**, Júlio-Costa, A., & Antunes, A.M. (2020). O aprendizado da matemática. In: Miranda, D. M. & Malloy-Diniz, M. (Org.). *Desenvolvimento ao longo do ciclo da vida: O escolar*. São Paulo: Hogrefe.
07. Júlio-Costa, A., **Starling-Alves, I.**, & Antunes, A.M. (2018) O desenvolvimento numérico na primeira e na segunda infância. In: Miranda, D. M & Malloy-Diniz, M. (Org.). *Desenvolvimento ao longo do ciclo da vida: O pré-escolar*, p.1-400. São Paulo: Hoegrefe.
06. Lopes-Silva, J. B., **Starling-Alves, I.**, Moura, R. J., & Haase, V.G. (2017). Fluência de desenhos: Teste dos cinco pontos. In: Júlio-Costa, A., Moura, R.J., & Haase, V.G. (Org.). *Compêndio de testes neuropsicológicos: atenção, funções executivas e memória*, p. 73-85. São Paulo: Hogrefe.
05. Lopes-Silva, J. B., **Starling-Alves, I.**, Moura, R. J., & Haase, V.G. (2017). Teste Stroop Victoria. In: Júlio-Costa, A., Moura, R.J., & Haase, V.G. (Org.). *Compêndio de testes neuropsicológicos: atenção, funções executivas e memória*, p. 163-174. São Paulo: Hogrefe.
04. Oliveira, L.F.S., **Starling-Alves, I.**, & Haase, V.G. (2017). Teste dos Nove Pinos. In: Júlio-Costa, A., Moura, R.J., & Haase, V.G. (Org.). *Compêndio de testes neuropsicológicos: atenção, funções*

*executivas e memória*, p. 47-57. São Paulo: Hogrefe.

03. Oliveira, L.F.S., **Starling-Alves, I.**, & Haase, V.G. (2017). Teste de aprendizagem auditivo-verbal de Rey. In: Júlio-Costa, A., Moura, R.J., & Haase, V.G. (Org.). *Compêndio de testes neuropsicológicos: atenção, funções executivas e memória*, p. 87-98. São Paulo: Hogrefe.
02. Salvador, L. S., Antunes, A. M., **Starling-Alves, I.**, Martins, G.A., Paiva, G.M., Prado, A.C.A., Almeida, F.N., Barbosa, D.C.B.P., Pessoa, M.G., & Haase, V.G. (2013). O status nosológico do transtorno não-verbal de aprendizagem e suas conexões com os transtornos do espectro do autismo. In: Camargos Jr., W. (Org.). *Síndrome de Asperger e outros transtornos do espectro do autismo de alto funcionamento: da avaliação ao tratamento*, p. 249-263. Belo Horizonte: Artesã.
01. Haase, V.G., Lopes-Silva, J.B., **Starling-Alves, I.**, Antunes, A.M., Costa, A.J., Oliveira, L.F.S., Pinheiro- Chagas, P., Moura, R.J., & Wood, G. (2013). Com quantos bytes se reduz a ansiedade matemática? A inclusão digital como uma possível ferramenta na promoção do capital mental (How many bytes are needed to reduce math anxiety? Digital inclusion as a tool to promoting mental capital). In: Valle, L.E.R., Mattos, M.J.V.M., & Costa, J.W. (Org.). *Inclusão Digital: a tecnologia a favor da inclusão*, p. 188-202. Porto Alegre: Penso.

### *Manuscripts Under Review*

05. Trassi, A. P., **Starling-Alves, I.**, & Santos, F. H. (submitted for publication). Understanding the selective impact of math anxiety on mathematical skills in first graders.
04. **Starling-Alves, I.**, Matthews, P. M., & Hubbard, E. M. (submitted for publication). The links between nonsymbolic ratio and fraction magnitude processing longitudinally predict fraction knowledge.
03. **Starling-Alves, I.**, Liao, X., Huang, Q., Bolt, D. M., Hubbard, E. M., & Matthews, P. G. (submitted for publication). Fraction Knowledge Assessment: a tool for investigating fraction knowledge development.
02. **Starling-Alves, I.**, Bonilla, D. A. S.\*, Bandler, S.\*, & Wilkey, E. D. (revise and resubmit) Beyond Integers: A Systematic Review of Rational Number Processing in The Brain.
01. **Starling-Alves, I.**, Wilkey, E. D. (revise and resubmit). Congruency and Distance Effects Vary Across Simultaneous and Sequential Two-Digit Integer, Fraction, and Decimal 2AFC Tasks.

### *Manuscripts in Preparation*

02. **Starling-Alves, I.**, Gomides, M. R. A. & Haase, V. G. (in preparation). High math anxiety impacts arithmetic achievement even in children with better inhibitory control and cognitive flexibility.
01. **Starling-Alves, I.**, Lopes-Silva, J. B., Freitas, P. M., Wood, G. M. O., Haase, V. G., & Moura, R. J. (in preparation). Number writing in adults with low schooling.

### *E-books and other publications*

- Starling-Alves, I.**, Gomides, M., & Santos, F. H., (2023). Preface: Brain and Maths in Ibero-America. *Progress in Brain Research*, 282, ix-xiii.

Santos, F. H., & **Starling-Alves, I.** (2023). Preface: The science of game-based learning in education and health. *Progress in Brain Research*, 276, xiii-xviii.

**Starling-Alves, I.**, Araujo, J. B., da Costa, O. M., & da Silva Neto, W. D. (2023). Como é a educação em Sobral. Instituto Alfa e Beto. Uberlândia: MG. Available [here](#).

**Starling-Alves, I.** (2022). Ansiedade Matemática. Instituto Alfa e Beto. Uberlândia: MG. Available [here](#).

## Presentations and Posters

**Starling Alves, I.** (2025). Foundations of Fraction Knowledge. Invited talk at NeuroSpin (online).

**Starling Alves, I.**, & Wilkey, E. (2025). Same, but Different: Sequential and Simultaneous Fraction Comparison Tasks Elicit Different Distance and Congruency Effects. In Proceedings of the Annual Meeting of the Cognitive Science Society (Vol. 47).

**Starling Alves, I.** (2025). Math Learning Through Cognitive Lenses: The Interplay Between Domain-General and Domain-Specific Factors. Invited talk at the University of Alabama Birmingham.

**Starling Alves, I.**, Shanley, L., Sabb, F., Clarke, B., Cook, M., & Wilkey, E. D. (2024). Resting state functional connectivity in 1st graders identified for math support in the classroom. Poster. 6<sup>th</sup> Mathematical Cognition and Learning Society Conference, Washington DC.

**Starling Alves, I.**, Shanley, L., Sabb, F., Clarke, B., Cook, M., & Wilkey, E. D. (2023). Functional Connectivity Profiles in 1st Graders Identified for Math Support in the Classroom. Poster. Flux, Santa Rosa, CA.

**Starling Alves, I.**, & Wilkey, E. D. (2023). Understanding the relations between magnitude processing, executive functions, and mathematics achievement. Flash talk. Numerical Cognition Meets Executive Functions Symposium, Surrey, UK.

**Starling Alves, I.**, & Wilkey, E. D. (2023). Beyond integers: Understanding the cognitive mechanism and neural bases of rational number development. Open Submission Talk. 6<sup>th</sup> Mathematical Cognition and Learning Society Conference, Loughborough, UK.

**Starling-Alves, I.**, Hirata, G., & Oliveira, J. B. A. (2022). Efeitos da pandemia no desempenho dos alunos em compreensão e fluência de leitura. Talk. V Encontro da Rede CPE, Rio de Janeiro, Brazil.

**Starling-Alves, I.** (2022). From one half to 12<sup>th</sup>: acquisition of fraction writing in adult education program students and children. Virtual MCLS.

**Starling-Alves, I.**, Matthews, P.G., & Hubbard, E.M. (2021). Individual differences in nonsymbolic ratio processing longitudinally predict algebraic reasoning in children. Short talk. 2021 Society for Research in Child Development Biennial Meeting (virtual).

**Starling-Alves, I.**, Park, Y., Kalra, P.B., Binzak, J.V., Matthews, P.G., & Hubbard, E.M. (2020). Experiências educacionais conectam frações simbólicas a sistemas parietofrontais de processamento de razões não-simbólicas. Talk. II Encontro Mineiro de Neuropsicologia Escolar: Cognição Numérica (virtual).

**Starling-Alves, I.**, Park, Y., Kalra, P.B., Binzak, J.V., Matthews, P.G., & Hubbard, E.M. (2020). Educational experiences connect symbolic fractions to parietofrontal nonsymbolic ratio processing system. Poster. 2020 Virtual CNS.



- Starling-Alves, I., & Hubbard, E. (2019).** The ratio processing system supports non-symbolic ratio arithmetic: evidence from college students and low literacy adults. Poster. 2<sup>nd</sup> Mathematical Cognition and Learning Society Conference, Ottawa, Canadá.
- Starling-Alves, I., & Hubbard, E. (2018).** Evidence for non-symbolic ratio arithmetic in adults in children. Poster. IMBES Conference, Los Angeles, USA.
- Starling-Alves, I., Gomides, M.R.A., Amorim, L., & Haase, V. G. (2018).** Associations between number processing and single-digit arithmetic: Effects of age, intelligence, operation mastery and SES?. Poster. 1<sup>st</sup> Mathematical Cognition and Learning Society Conference, Oxford, UK.
- Starling-Alves, I., Bortoloti, R., & Haase, V.G. (2017).** Core deficit or access hypothesis: which one rules in mathematical difficulties?. Talk. World Congress on Brain, Behavior, and Emotions, Porto Alegre, Brazil.
- Starling-Alves, I., Costa, A.J., Lopes-Silva, J.B., Pinheiro-Chagas, P., & Haase, V.G. (2012).** Symbolic number processing in typical and atypical arithmetic achievement. Poster. II Semana Internacional de Neurociências da UFMG - VI Simpósio de Neurociências da UFMG, Revista Médica de Minas Gerais, p. S1-S136.
- Starling-Alves, I., Antunes, A.M., Salvador, L.S., Lopes-Silva, J. B., Costa, A. J., & Haase, V.G. (2012).** Turning 700013 to 7013: Rehabilitation program in numerical transcoding and place value understanding. Poster. Congresso Mineiro de Neuropsicologia, Belo Horizonte, Brazil.
- Starling-Alves, I., Pinheiro-Chagas, P., & Haase, V. G. (2011).** Senso numérico e desempenho aritmético: Há relação?. Talk. III Simpósio de Natal de Neuropsicologia, Belo Horizonte, Brazil.

## Event Organization

- 2023 17<sup>th</sup> Annual Vanderbilt Postdoctoral Association Symposium.
- 2020 Mathematical Cognition and Learning Society Conference.
- 2014 I Congresso Brasileiro da SBNp Jovem e II Fórum de Jovens Pesquisadores. Belo Horizonte, Minas Gerais, Brazil.
- 2014 II World Dyslexia Forum. Belo Horizonte, Minas Gerais, Brazil.
- 2012 II Semana Internacional de Neurociências - VI Simpósio Internacional de Neurociências da UFMG: Percepção. Belo Horizonte, Minas Gerais, Brazil.
- 2011 Curso Fenótipos Cognitivos: do Genótipo à Inclusão. Belo Horizonte, Minas Gerais, Brazil.
- 2010 II Jornada de Neuropsicologia do LND: Conhecimentos das Neurociências em Prol da Educação. Belo Horizonte, Minas Gerais, Brazil.

## (Co)Mentoring Students

- 2024 Siyu Liu (Vanderbilt University) – M.S. Research Project: “Do different fraction comparison tasks measure the same construct?”
- 2023 Danielle A. Bonilla (Vanderbilt University) – Independent Research Project: “Beyond Integers: Uncovering the Neural Correlates of Rational Number Processing.”

- 2021 Jack Siepmann (UW-Madison) – Independent Research Project: “The Neural Underpinnings of Math Anxiety and Fraction Knowledge in the Brain.”
- 2020 Molly G. Pistono (UW-Madison) – Independent Research Project: “Investigating the Neural and Behavioral Differences of Ratio Processing in Males and Females.”
- 2020 Peyton J. Nystrom (UW-Madison) – Independent Research Project: “The Relationship Between Ratio Processing and Fraction Ability in Children.”
- 2020 Elijah G. Hovan Karian (UW-Madison) – Project: “The Ratio-Processing System and its Ability to Predict Fraction Knowledge Against Nonverbal Reasoning.”
- 2020 Jacob T. Lundquist (UW-Madison) – Independent Research Project: “Nonsymbolic ratio addition and subtraction.”
- 2019 Matthews R. Wronski (UW-Madison) – Independent Research Project: “Math anxiety impacts on fraction knowledge.”
- 2019 Haley M. Annes (UW-Madison) – Independent Research Project: “Brain Scans and Lesson Plans: An fMRI Study on the Development of Fraction Abilities.”
- 2015 – 2017 Amanda Guimarães (Universidade Federal de Minas Gerais) – Undergraduate RA. Project: “Endophenotypes of Mathematics Difficulties.”
- 2015 – 2017 Drielle Barbosa (Universidade Federal de Minas Gerais) – Undergraduate RA. Project: “Endophenotypes of Mathematics Difficulties.”
- 2015 – 2017 Barbra R. Lima (Universidade Federal de Minas Gerais) – Undergraduate RA. Project: “Endophenotypes of Mathematics Difficulties.”

## Committees

Member of Honor Thesis Committee: Jiahe Wang. (2024). Thesis: Examining the Effect of Self-explanation and Visual Cues in Mathematics Learning. Vanderbilt University, Nashville, TN, USA.

Member of PhD Dissertation Committee: Angélica Polvani Trassi. (2023). Dissertation: The influence of family and school environment on numerical cognition and math anxiety. Universidade Estadual Paulista Júlio de Mesquita Filho, São Paulo, Brazil.

Member of Master’s Thesis Committee: Bernardo Schotgues. (2023). Thesis: A meta-analytical approach to cross-cultural differences in the relationship between number sense and mathematics. Universidade Federal de Minas Gerais, Belo Horizonte, Brazil.

Member of Master’s Thesis Committee: Andre Henrique Barbosa de Carvalho. (2023). Thesis: Impacts of MAOA and MAOB genes in phenotypes associated with school achievement. Universidade Federal de Minas Gerais, Belo Horizonte, Brazil.

Member of Master’s Thesis Committee: Luana Teixeira Batista. (2021). Thesis: Influence of phonological processing on Arabic numerals writing in school-age children.

## Ad-Hoc Reviewer - Journal

Journal of Numerical Cognition.

Cognitive Science Journal.

Journal of Experimental Child Psychology.

Annals of the New York Academy of Sciences.

Progress in Brain Research.

Developmental Psychology.

Frontiers in Public Health.

Frontiers in Education.

Dementia & Neuropsychologia.

Debates em Psiquiatria.

## **Ad-Hoc Reviewer - Conference**

Cognitive Science Society 2025 Conference.

Flux 2024 Conference.

Cognitive Science Society 2023 Conference.

## **Service**

Vanderbilt Psychology and Human Development EDI committee, 2023.

Secretary - MCLS Training Board, 2020 – 2022.

Chair of Students Affairs - Educational Psychology Students Association, 2018 – 2020.

## **Membership**

Mathematical Cognition and Learning Society (MCLS).

Cognitive Neuroscience Society (CNS).

Cognitive Science Society (CogSci).

Flux Society.

International Mind, Brain, and Education Society (IMBES).

## **Professional Development**

2024 Latest Trends in fMRI Analysis with FSL and Machine Learning – Vanderbilt University.

2021 Introduction to Python – UW–Madison.

2021 Writing Workshop – Mathematical Cognition and Learning Society.

2021 Dissertation Writing Camp – UW-Madison Writing Center.

- 2020 Institute on Statistical Analysis: Development of Mathematics Competencies in Early Childhood, AERA-NSF Statistical Institute.
- 2020 UW-Madison DELTA Program (teaching-as-research, inclusive teaching, and mentoring).
- 2020 Introduction to Bayesian Statistics - Mathematical Cognition and Learning Society.
- 2020 Open Science – Mathematical Cognition and Learning Society.
- 2019 Writing Workshop – Mathematical Cognition and Learning Society.

## **Language Knowledge**

Portuguese (fluent), English (fluent), Spanish (basic), French (basic).

## **Selected Media Coverage**

[Valor Econômico](#) (Brazilian largest financial newspaper)

[Jornal Hoje](#) (Brazilian tv news)