

Curriculum Vitae

ISABELLA STARLING ALVES

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Education

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| 2017 – Present | PhD in Educational Psychology – Human Development Area (minor in Mind, Brain, and Education), University of Wisconsin Madison, USA. |
| 2017 | MS in Neurosciences, Federal University of Minas Gerais, Brazil. |
| 2014 | BA in Psychology (minor in Human Development and Psychological Assessment), Federal University of Minas Gerais, Brazil. |
| 2013 | Exchange Student, University of Wisconsin Madison, USA. |

Professional Experience

Research Experience

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| 2017 – 2019 | Project Assistant at the Educational Neuroscience Lab, University of Wisconsin Madison, USA. |
| 2009 – 2017 | Project Assistant at the Developmental Neuropsychology Lab, Federal University of Minas Gerais, Brazil. |
| Spring and Fall 2013 | Undergraduate research Assistant at the Educational Neuroscience Lab, University of Wisconsin Madison, USA. |
| Spring 2010 | Undergraduate research Assistant at the Individual Differences Assessment Lab, Federal University of Minas Gerais, Brazil |

Teaching Experience

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| Fall 2019 – Spring 2020 | Teaching Assistant of the course “EdPsych 326: Mind, Brain, and Education”, University of Wisconsin Madison, USA. |
| Summer 2019 | Teaching Assistant of the course “EdPsych 320: Human Development Human Development in Infancy and Childhood”, University of Wisconsin Madison, USA. |
| 2016 – 2017 | Teaching Assistant of the course “ <i>Neurociência para professores da APAE</i> (Neuroscience for teachers of children with special needs)”, Federal University of Minas Gerais, Brazil. |
| September 2018 | Guest Lecturer: EdPsych326 - Mind, Brain, and Education, University of Wisconsin-Madison, USA |

- June 2017 Guest Lecturer: Specialization in Neuropsychology, Medical Sciences
Institute of Minas Gerais, Brazil
- December 2015 Guest Lecturer: Psi041 - Quantitative Methods in Psychology, Federal
University of Minas Gerais, Brazil

Clinical Psychology

- 2016 –2017 Clinical Neuropsychologist at the Clinic “*Oficina da Imaginação*
(Imagination office)”, Belo Horizonte, MG, Brazil.
- 2015-2017 Clinical Neuropsychologist at the Clinic “*NUMERO (Number)*”, Belo
Horizonte, MG, Brazil.

Awards, Honors, and Sponsorships

Sponsorships and Grants

- Aug, 2017 – Present Predoctoral fellowship from CAPES, Brazil.
- Jan, 2015 – Mar, 2017 MS fellowship from CAPES, Brazil.
- Apr, 2014 – Dec, 2014 Undergraduate research fellowship from FAPEMIG, Brazil. Research
assistant in the project " Neurodevelopment and genetics".
Developmental Neuropsychology Lab, Federal University of Minas
Gerais, Brazil.
- Jan, 2013 – Dec, 2013 Scholarship from the Science without Borders Program to study
abroad at the University of Wisconsin Madison, USA.
- Aug, 2012 – Dec, 2012 Undergraduate research fellowship from CNPq. Research assistant in
the project “Neuropsychological intervention and parent training for
children with math learning disabilities”. Developmental
Neuropsychology Lab, Federal University of Minas Gerais, Brazil.
- Aug, 2011 – July, 2012 Undergraduate research fellowship from CNPq. Research assistant in
the project “Developmental dyscalculia in school-age children:
population screening, cognitive profile, and molecular-genetics”.
Developmental Neuropsychology Lab, Federal University of Minas
Gerais, Brazil.
- Mar, 2011 – Aug, 2011 Undergraduate fellowship from PBEXT. Project Assistant in the
project “Developmental neuropsychology: intervention for mood
disorders and learning disabilities”. Developmental Neuropsychology
Lab, Federal University of Minas Gerais, Brazil.

Awards, Honors, and Recognitions

- 2020 Selected for the 2020 AERA-NSF Institute on Statistical Analysis, USA.
- 2019 Student Research Travel Award for International Conference: The MCLS 2019 Meeting – Wisconsin Scholarship Hub (WiSH), University of Wisconsin Madison, USA.
- 2015 Selected for the 2nd Advanced Studies in Neurosciences. Federal University of Rio Grande do Sul, Brazil.
- 2015 Award for the work “Mothers' educational attainment is related to math anxiety in children”, at the III Encontro Mineiro de Neuropsicologia, Belo Horizonte, Minas Gerais, Brazil.
- 2014 Selected for the XIV Curso de Verão de Psicobiologia (XIV Summer Course in Psychobiology). 112h. Federal University of São Paulo, Brazil.
- 2014 Academic Relevance for the work “Numerosidade nas Síndromes de Down e Williams: estudo comparativo preliminar (Numerosity in Williams and Down syndrome: preliminary study)”, at the XXIII Semana de Iniciação Científica da UFMG, Belo Horizonte, Brazil.
- 2013 Award for the project “Avaliação Neuropsicológica e Genética de pacientes com síndrome de Williams-Beuren: estendendo a pesquisa a uma rede de apoio (Neuropsychological assessment and genetic testing for Williams-Beuren syndrome: expanding research to a support network)”, at the XVI Encontro de Extensão da UFMG, Belo Horizonte, Brazil.
- 2012 Award for the work “Reabilitação Neuropsicológica da Discalculia do Desenvolvimento na Síndrome de Turner: um Estudo De Caso”, at the I Congresso Mineiro de Neuropsicologia da SBNp, Belo Horizonte, Brazil.
- 2012 Work selected as the best research report in Humanities of the Federal University of Minas Gerais – nominated for the national award “Prêmio Destaque na Iniciação Científica e Tecnológica do CNPq (Best undergraduate research project – CNPq)”, Belo Horizonte, Brazil.
- 2011 Honors for the work “Diferentes Níveis do Sistema Numérico Aproximado Contribuem de Forma Independente ao Desempenho Aritmético (Different levels of the approximate number system have independent contributions to arithmetics achievement)” at the XX Semana de Iniciação Científica da UFMG, Belo Horizonte, Brazil.
- 2011 Academic Relevance for the work “A Relação Entre Polimorfismo Val158met do Gene Comt e Habilidades Neuropsicológicas: Análises Preliminares (Association between Val158met COMT gene and neuropsychological functions: preliminary analyses)” at the XX Semana de Iniciação Científica da UFMG, Belo Horizonte, Brazil.

Publications and Presentation

Published Papers

- 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.
- Haase, V. G. & **Starling-Alves, I.** (2017). In search of the moral-psychological and neuroevolutionary basis of political partisanship. *Dementia & Neuropsychologia*, 11, 15-17.
- 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.
- 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.
- 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.
- 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* (Neuropsychological rehabilitation for math difficulties in Turner syndrome: a case study). *Neuropsychologia Latinoamericana*, 66-75.
- Haase, V.G., Costa, A. J., Antunes, A.M., & **Starling-Alves, I.** (2012). *Heterogeneidade cognitiva nas dificuldades de aprendizagem da matemática: uma revisão bibliográfica* (Cognitive heterogeneity in mathematics learning: a literature review). *Psicologia em Pesquisa*, 139-150.
- Rivero, T. S., Querino, E. H. G., & **Starling-Alves, I.** (2012). *Videogame: seu impacto na atenção, percepção e funções executivas* (Videogames: their impact on attention, perception and executive functions). *Neuropsychologia Latinoamericana*, 4(3), 38-52.

Submitted Papers

- Gomides, M. R. A., **Starling-Alves, I.**, Paiva, G.M., Caldeira, L.S., Aichinger, A.L.P.N., Carvalho, M.R. S., Bahnmüller, J., Moeller, K., Lopes-Silva, J.B., & Haase, V.G. (submitted). The quandary of diagnosing mathematical difficulties in a generally low performing population. *Dementia & Neuropsychologia*.

Papers in preparation

- Starling-Alves, I.**, Wronski, M., Matthews, P.M., & Hubbard, E.M. (in preparation). Math anxiety negatively impacts fraction knowledge.
- Starling-Alves, I.**, Gomides, M.R.A., Ribeiro, D., Haase, V.G., & Hubbard, E.M. (in preparation). From half to 12th: error types in fraction writing in a context of informal learning.

Starling-Alves, I., Ribeiro, D., Haase, V.G., & Hubbard, E.M. (in preparation). The Ratio Processing System supports non-symbolic ratio arithmetic: evidence from college students and adults with low literacy.

Starling-Alves, I., Oliveira, L.F.S., Carvalho, M.R.S., & Haase, V.G. (in preparation). When less is more: overestimation of small quantities in Williams Syndrome.

Book Chapters

Starling-Alves, I., Júlio-Costa, A., & Antunes, A.M. (2020). *O aprendizado da matemática* (Mathematics learning in school-age children). In: Miranda, D. M. & Malloy-Diniz, M. (Org.). *Desenvolvimento ao longo do ciclo da vida: O escolar* (Development across the lifespan: school-age children). São Paulo: Hogrefe.

Júlio-Costa, A., **Starling-Alves, I.,** & Antunes, A.M. (2018) *O desenvolvimento numérico na primeira e na segunda infância* (Numerical cognition development in first and second infancy). In: Miranda, D. M & Malloy-Diniz, M. (Org.). *Desenvolvimento ao longo do ciclo da vida: O pré-escolar* (Development across the lifespan: preschool children, p.1-400). São Paulo: Hogrefe.

Lopes-Silva, J. B., **Starling-Alves, I.,** Moura, R. J., & Haase, V.G. (2017). *Fluência de desenhos: Teste dos cinco pontos* (Figure fluency: five points test). In: Júlio-Costa, A., Moura, R.J., & Haase, V.G. (Org.). *Compêndio de testes neuropsicológicos: atenção, funções executivas e memória* (Compendium of neuropsychological tests: attention, executive functions, and memory, p. 73-85). São Paulo: Hogrefe.

Lopes-Silva, J. B., **Starling-Alves, I.,** Moura, R. J., & Haase, V.G. (2017). Teste Stroop Victoria (Victoria Stroop test). In: Júlio-Costa, A., Moura, R.J., & Haase, V.G. (Org.). *Compêndio de testes neuropsicológicos: atenção, funções executivas e memória* (Compendium of neuropsychological tests: attention, executive functions, and memory, p. 163-174). São Paulo: Hogrefe.

Oliveira, L.F.S., **Starling-Alves, I.,** & Haase, V.G. (2017). Teste dos Nove Pinos (Nine-hole peg test). In: Júlio-Costa, A., Moura, R.J., & Haase, V.G. (Org.). *Compêndio de testes neuropsicológicos: atenção, funções executivas e memória* (Compendium of neuropsychological tests: attention, executive functions, and memory, p. 47-57). São Paulo: Hogrefe.

Oliveira, L.F.S., **Starling-Alves, I.,** & Haase, V.G. (2017). Teste de aprendizagem auditivo-verbal de Rey (Rey auditory-verbal learning test). In: Júlio-Costa, A., Moura, R.J., & Haase, V.G. (Org.). *Compêndio de testes neuropsicológicos: atenção, funções executivas e memória* (Compendium of neuropsychological tests: attention, executive functions, and memory, p. 87-98). São Paulo: Hogrefe.

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 (The nosological status of nonverbal learning disabilities and its association with ASD). In: Camargos Jr., W. (Org.). *Síndrome de Asperger e outros transtornos do espectro do autismo de alto funcionamento: da avaliação ao tratamento* (Asperger's syndrome and other high functioning autism spectrum disorders: from assessment to treatment, p. 249-263). Belo Horizonte: Artesã.

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* (Digital Inclusion: technology in favor of inclusion, p. 188-202). Porto Alegre: Penso.

Posters and Presentations

Starling-Alves, I., Park, Y., Kalra, P.B., Binzak, J.V., Matthews, P.M., & Hubbard, E.M. (2020). Educational experiences connect symbolic fractions to parietofrontal nonsymbolic ratio processing system. Talk presented (in Portuguese) at the Virtual II Minas Gerais Meeting of School Neuropsychology: Numerical Cognition.

Starling-Alves, I. Park, Y., Kalra, P.B., Binzak, J.V., Matthews, P.M., & Hubbard, E.M. (2020). Educational experiences connect symbolic fractions to parietofrontal nonsymbolic ratio processing system. Poster presented at the 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 presented at the 2nd Mathematical Cognition and Learning Society Conference, Ottawa, Canada.

Starling-Alves, I. & Hubbard, E. (2018). Evidence for non-symbolic ratio arithmetic in adults in children. Poster presented at IMBES Conference, Los Angeles, California, 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?. Posted presented at the 1st 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 presented at the 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 presented at the 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 presented at the Congresso Mineiro de Neuropsicologia, Belo Horizonte, Brazil.

Starling-Alves, I., Pinheiro-Chagas, P., & Haase, V. G. (2011). Senso numérico e desempenho aritmético: Há relação? (Number Sense and arithmetics achievement: are they associated?). Talk presented at the III Simpósio de Natal de Neuropsicologia, Belo Horizonte, Brazil.

Conferences and Events Organization

2020 Virtual Mathematical Cognition and Learning Society Conference.

I Congresso Brasileiro da SBNp Jovem e II Fórum de Jovens Pesquisadores. 2014. Belo Horizonte, Minas Gerais, Brazil.

II World Dyslexia Forum. 2014. Belo Horizonte, Minas Gerais, Brazil.

II Semana Internacional de Neurociências - VI Simpósio Internacional de Neurociências da UFMG: Percepção. 2012. Belo Horizonte, Minas Gerais, Brazil.

Curso Fenótipos Cognitivos: do Genótipo à Inclusão. 2011. Belo Horizonte, Minas Gerais, Brazil.

II Jornada de Neuropsicologia do LND: Conhecimentos das Neurociências em Prol da Educação. 2010. Belo Horizonte, Minas Gerais, Brazil.

Conferences Attendance

2020 Virtual Annual Meeting of the Cognitive Neuroscience Society.

2nd Mathematical Cognition and Learning Society Conference. 2019. Ottawa, Canada.

2018 IMBES Conference. 2018. Los Angeles, California, USA.

40th Annual Meeting of the Cognitive Science Society. 2018. Madison, Wisconsin, USA.

1st Mathematical Cognition and Learning Society Conference. 2018. Oxford, UK.

World Congress on Brain, Behavior and Emotions. 2017. Porto Alegre, Rio Grande do Sul, Brazil.

VI Simpósio de Neurociências da UFMG. 2012. Belo Horizonte, Minas Gerais, Brazil.

I Congresso Mineiro de Neuropsicologia. 2012. Belo Horizonte, Minas Gerais, Brazil.

III Simpósio de Natal de Neuropsicologia. 2011. Belo Horizonte, Minas Gerais, Brazil.

I Congresso Internacional de Neuropsicologia e Neuropsiquiatria. 2010. Goiânia, Goiás, Brazil.

IV Simpósio de Neurociências da UFMG - Neurociências: Desafios sem fronteiras. 2010. Belo Horizonte, Minas Gerais, Brazil.

Memberships

Mathematical Cognition and Learning Society (MCLS).

Cognitive Neuroscience Society (CNS).

International Mind, Brain, and Education Society (IMBES)

Sociedade Brasileira de Neuropsicologia (Brazilian Neuropsychology Society).

Service

Secretary of the MCLS Training Board – 2020/2022

Academic Committee chair of the Education Psychology Students Association – 2018/Present

Marketing chair of the Brazilian Neuropsychology Society Training Board – 2014/2015

Reviewer for the journal *Dementia & Neuropsychologia*

Language Knowledge

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

Selected Skills

- R.
- IBM SPSS.
- E-prime.
- Presentation.
- PsychoPy.
- Online data collection (Gorilla, Pavlovia, Qualtrics).
- Training on fMRI (data collection and analysis, Brain Voyager).
- Experience with neuropsychological assessment and intervention in children, adolescents, and adults.