RODRIGO DAL BEN DE SOUZA

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Personal website: https://roddalben.github.io/

Cumming School of Medicine
University of Calgary
Calgary, AB
Canada

RESEARCH INTERESTS

Health data, child development, research software, reproducible data analysis, quantitative methods, open science.

EXPERIENCE

Senior Research Analyst   2024 - present
Cumming School of Medicine, University of Calgary, Canada
Focus: Health economics data, sustainable data management practices, reproducible analytical pipelines for multinational projects

Data Scientist (on-call)   2023 - present
Bee Touch – Workforce Mental Health, Remote
Focus: Quantitative metrics, Data Wrangling and Visualization, Statistical and ML models, Report to Stakeholders and Scientific Community

Assistant Professor   2023 - 2024
Ambrose University, Calgary, Canada, Psychology
Main courses: Research Methods, Quantitative Data Analysis, Child Development

Postdoctoral Fellow   2022 - 2023
Ambrose University, Calgary, Canada, Psychology
Teaching focused: Research Methods, Data Analysis, Child Development
Supervisor: Joel Thiessen

Postdoctoral Fellow   2020 - 2021
Concordia University, Montreal, Canada, Psychology
Project: Open Science Practices in Infant Research
Supervisor: Krista Byers-Heinlein

International Postdoctoral Research Associate   2020 - 2020
Concordia University, Psychology, Remote
Project: Open Science Practices in Infant Research
Supervisor: Krista Byers-Heinlein

EDUCATION AND RESEARCH TRAINING

Professional Certificate   2020 - 2022
Harvard University, edX, Data Science
Topics: R, visualization, probability, inference, modeling,
version control, data wrangling, machine learning

Ph.D.   Universidade Federal de São Carlos, Brazil, Psychology   2016 - 2020
Dissertation: Speech Segmentation and Word Learning in Parallel
Emphasis: Developmental Psychology
Advisor: Débora de Hollanda Souza;
Co-advisor: Jessica F. Hay

Research Internship   2018 - 2019
University of Tennessee, Knoxville, Psychology
Topics: developmental research, eye-tracking, online research,
natural speech analysis, data analysis
Supervisor: Jessica F. Hay

M.A.   Universidade Federal de São Carlos, Brazil, Psychology   2014 - 2016
Thesis: Effects of Vocal Model and Planned Consequences on
Children's Descriptions
Emphasis: Behavior Analysis
Advisor: Antônio Celso de Noronha Goyos

B.A.   Centro Universitário Filadélfia, Brazil, Psychology   2009 - 2013
Honours: Publication Trends in the Analysis of Verbal Behavior
Emphasis: Behavior Analysis
Advisor: Marcos Roberto Garcia

JOURNAL ARTICLES

18. ManyBabies Consortium, with **Dal Ben, R.** and 20+ others. (2024). A Unified Approach to Demographic Data Collection for Research with Young Children Across Diverse Cultures. *Developmental Psychology, 60 (2)*, 211–227. doi: https://doi.org/10.1037/dev0001623. PsyArXiv: https://psyarxiv.com/agt3d/

17. **Dal Ben, R.**, Prequero, I. T., Souza, D. H., & Hay, J. (2023). Speech segmentation and cross-situational word learning in parallel with Brazilian-Portuguese speakers. *Open Mind, 7,* 510–533. doi: https://doi.org/10.1162/opmi_a_00095. PsyArXiv: https://psyarxiv.com/pf4nr/

16. Gonzalez, A. M., **Dal Ben, R.**, Killam, H., & Byers-Heinlein, K. (2023). Word learning in 14-month-old monolinguals and bilinguals: Challenges and methodological opportunities. *Language Development Research*, *3 (1)*, 277–317. doi: https://doi.org/10.34842/3vw8-k253. PsyArXiv: https://psyarxiv.com/5dvx8/

15. /L+/ Team, with **Dal Ben, R.**, and 20+ others (2023). Towards Diversifying Early Language Development Research: First Truly Global International Summer/Winter School on Language Acquisition (/L+/) 2021. *Journal of Cognition and Development*. doi: https://doi.org/10.1080/15248372.2023.2231083. PsyArXiv: https://osf.io/a3dy8/

14. ManyBabies Consortium, with **Dal Ben, R.** and 20+ others. (2023). Validation of an open source, remote web-based, eye-tracking method (WebGazer) for research in early childhood. *Infancy, 29 (3)*, 31–55. doi: https://doi.org/10.1111/infa.12564. PsyArXiv: https://psyarxiv.com/7924h/

13. **Dal Ben, R.** (2023). SHINE_color: controlling low-level properties of colorful images. *MethodsX, 11*, 102377. doi: https://doi.org/10.1016/j.mex.2023.102377. PsyArXiv: https://psyarxiv.com/fec6x/

12. **Dal Ben, R.**, Souza, D. H., & Hay, J. (2022). Combining statistics: The effects of phonotactics on cross-situational word learning. *Psychology: Research and Review, 35*, 30. https://doi.org/10.1186/s41155-022-00234-y. PsyArXiv: https://psyarxiv.com/3x6uk/

11. **Dal Ben, R.**, Killam, H., Pour Iliaei, S., & Byers-Heinlein, K. (2022). Bilingualism affects infant cognition: Insights from new and open data. *Open Mind, 6*, 88–117. https://doi.org/10.1162/opmi_a_00057. PsyArXiv: https://doi.org/10.31234/osf.io/ex76a

10. **Dal Ben, R.**, Brouillard, M, Gonzalez-Barrero, A. M., Killam, H., Kremin, L. V., Quirk, E., Sander-Montant, A., Schott, E., Tsui, R. K., & Byers-Heinlein, K. (2022). How open science can benefit bilingualism research: A lesson in six tales. *Bilingualism: Language and Cognition*, 1–8. https://doi.org/10.1017/S1366728922000256. PsyArXiv: https://psyarxiv.com/2tmdr/

9. Visser, I., … **Dal Ben, R.** and 26+ others (2022 – Commentary). Improving the generalizability of infant psychological research: The ManyBabies model. *Behavioral and Brain Sciences, 45*, e35. https://doi.org/10.1017/S0140525X21000455. PsyArXiv: https://psyarxiv.com/8vwbf/

8. **Dal Ben, R.**, Souza, D. H., & Hay, J. (2021). When statistics collide: The use of transitional and phonotactic probability cues to word boundaries by Brazilian-Portuguese adults. *Memory & Cognition, 49,* 1300–1310. https://doi.org/10.3758/s13421-021-01163-4. Material and data available at: https://osf.io/s9thk/

7. **Dal Ben, R.**, & Goyos, C. (2019). Further evidence of automatic reinforcement effects on verbal form. *The Analysis of Verbal Behavior, 35*(1), 74–84. https://doi.org/10.1007/s40616-018-0104-3. Material and data available at: https://osf.io/pv7xa/

6. **Dal Ben, R.**, & Goyos, C. (2017). Authorship Trends in The Analysis of Verbal Behavior: 1982–2016. *The Analysis of Verbal Behavior, 33*(1), 117–138. https://doi.org/10.1007/s40616-017-0076-8

5. **Dal Ben, R.**, Calixto, F. C., & Ferreira, A. L. (2017). Are Brazilian Behavior Analysts Publishing Outside the Box? A Survey of General Science Media. *Behavior Analysis in Practice, 10*(3), 270–278. https://doi.org/10.1007/s40617-016-0152-x

4. Silva, F. S. e, Panosso, M. G., **Dal Ben, R.**, & Gallano, T. P. (2017). Métodos de avaliação de itens de preferência para a identificação de reforçadores. *Revista Brasileira de Terapia Comportamental e Cognitiva, 19*(2), 89–107. https://doi.org/10.31505/rbtcc.v19i2.1034 [Title translation: Preference Assessment for Identifying Reinforcers]

3. **Dal Ben, R.** (2017). O que nos motiva: uma resenha crítica do livro Payoff. *Perspectivas Em Análise Do Comportamento, 08*(02), 180–185. https://doi.org/10.18761/PAC.2017.001 [Title translation: Book Review: Payoff – what motivates us]

2. **Dal Ben, R.**, Camargo, J., Melo, C. M. de, & Figueiras, G. B. (2016). Análise do Comportamento e Sustentabilidade: Revisão dos artigos publicados no Behavior and Social Issues de 2005 a 2016. *Revista Brasileira de Análise Do Comportamento, 12*(2), 86–94. http://dx.doi.org/10.18542/rebac.v12i2.4401 [Title translation: Behavior Analysis and Sustainability: Review of the articles published in Behavior and Social Issues from 2005 to 2016]

1. **Dal Ben, R.**, & Juliani, J. (2013) Psicologia e autismo: aspectos teóricos e práticos. *Terra e Cultura, 56*(1), 139–152. [Title translation: Psychology and Autism: Theoretical and practical aspects]

BOOK CHAPTERS

Cannistraci, R. A., **Dal Ben, R.**, Karaman, F., Esfahani, S. P., & Hay, J. F. (2019). Statistical Learning Approaches to Studying Language Development. In J. S. Horst & J. von Koss Torkildsen (Eds.), *International Handbook of Language Acquisition* (pp. 51-75). New York, NY: Routledge, [2019] | Series: Routledge: Routledge. https://doi.org/10.4324/9781315110622

Dal Ben, R., & Calheiros, T. C. (2018). Leituras essenciais em análise do comportamento: um levantamento com editores brasileiros. In N. Kienen, S. R. S. A. Gil, J. C. Luzia, & J. Gamba (Eds.), *Análise do comportamento: Conceitos e aplicações a processos educativos, clínicos e organizacionais* (pp. 85-94). Londrina: UEL.
[Title translation: Essential Readings in Behavior Analysis: A survey with Brazilian editors]

Juliani, J., & Dal Ben, R. (2014). Relato de Experiência: Acompanhante Terapêutico com Adulto Autista. In: M. C. Marquezine, A. L. O. Coneglian, & J. J. F. Almeida. (Eds.), *Formação de Professores e atuação de pais na educação de alunos com necessidades educacionais especiais* (pp. 131-154). São Carlos: ABPEE.
[Title translation: Case Study: Caregiver of an autistic adult]

Rosa, N. M. F., & Dal Ben, R. (2013). Comportamento Supersticioso: Aspectos Conceituais e Experimentais. In: C. E. Costa, C. R. X. Cançado, D. R. Zamignani, & S. R. S. Arrabal-Gil. (Eds.), *Comportamento em Foco 2* (pp. 69-76). São Paulo: ABPMC.
[Title translation: Superstitious Behavior: Conceptual and experimental aspects]

REGISTERED REPORTS WITH STAGE 1 ACCEPTANCE PENDING DATA COLLECTION

ManyBabies Consortium, with **Dal Ben, R.** and 200+ others. (under review – Stage 1 Registered Report). ManyBabies5: A large-scale investigation of the proposed shift from familiarity preference to novelty preference in infant looking time. *Nature Human Behavior*. PsyArXiv: https://psyarxiv.com/ck3vd/

PUBLICATIONS UNDER REVIEW AND IN PREPARATION

Delefrati, V. R. T., Tardem, M. F., **Dal Ben, R.**, & Hübner, M. M. C. (in preparation). *The Emergence of Mands and Tacts in Children with ASD: A conceptual replication.*

RESEARCH SCHOLARSHIP AND AWARDS

Feasibility of a Virtual Intervention for Culturally and Linguistically Diverse Children at Risk of Autism Spectrum Disorders – Not granted
PI: Ana Maria Gonzalez-Barrero
Co-Applicant: Isabel Smith
Collaborator: Rodrigo Dal Ben
Agency: Research Nova Scotia (researchNS)
Program: New Health Investigator
Funding: $100,00.00 CAD
Duration: 2023 – 2025 (2 years)

Non-adjacent dependency learning: an integrated account from Psycholinguistics, Computational Modeling, and Formalist Theory – Not granted

> PI: Cristina Name
> Collaborator: Rodrigo Dal Ben
> Agency: National Council for Scientific and Technological Development (Brazil)
> Program: International Networks in the Social Sciences
> Funding: $130,00.00 BRL (~ $25,061.20 USD)
> Duration: 2022 – 2024 (2 years)

Cross-situational word learning: Systematic Review and Meta-analysis

> PI: Rodrigo Dal Ben
> Agency: Ambrose University
> Program: Ambrose Research Fund
> Funding: $2,750.00 CAD
> Duration: 2023 – 2024 (1 year)

Links between bilingualism and cognition in infancy (rank: 1st place) – Declined

> PI: Rodrigo Dal Ben
> Supervisor: Krista Byers-Heinlein
> Agency: Fonds de recherche du Quebec – Nature et Technologies (FRQNT)
> Program: Bourses postdoctorales
> Funding: $90,000.00 CAD
> Duration: 2023 – 2025 (2 years)

Links between bilingualism and cognition in infancy (rank: 1st place) – Declined

> PI: Rodrigo Dal Ben
> Supervisor: Krista Byers-Heinlein
> Agency: Fonds de recherche du Quebec – Société et culture (FRQSC)
> Program: Bourses postdoctorales
> Funding: $90,000.00 CAD
> Duration: 2022 – 2024 (2 years)

Bilingualism, social language, and executive functioning in school-age children with autism spectrum disorders (Rank: 1st place)

> PI: Ana Maria Gonzalez-Barrero
> Co-Applicant: Isabel Smith
> Collaborator: Rodrigo Dal Ben
> Agency: Social Sciences and Humanities Research Council (SSHRC)
> Program: Insight Development Grant
> Funding: $49,243.00 CAD
> Duration: 2022 – 2024 (2 years)

An open phonotactic and orthotactic probabilities calculator
  PI: Rodrigo Dal Ben
  Agency: Ambrose University
  Program: Ambrose Research Fund
  Funding: $4,551.00 CAD
  Duration: 2022 – 2023 (1 year)

Open Science practice in infant research
  PI: Krista Byers-Heinlein
  Agency: Concordia University
  Program: Horizon Postdoctoral Fellowship
  Funding: $76,000 CAD
  Duration: 2020 – 2022 (2 years)

Speech Segmentation and Word Learning in Parallel
  PI: Rodrigo Dal Ben
  Co-PI: Débora de Hollanda Souza
  Agency: São Paulo Research Foundation
  Program: International Research Internship
  Funding: $25,830.00 USD
  Duration: 2018 – 2019 (1 year)

Speech Segmentation and Word Learning in Parallel (Ph.D. scholarship)
  PI: Rodrigo Dal Ben
  Co-PI: Débora de Hollanda Souza
  Agency: São Paulo Research Foundation
  Funding: R$ 131,552.72 (~ $24,452.17 USD)
  Duration: 2016 – 2020 (4 years)

Effects of Vocal Model and Planned Consequences on Children's Descriptions (M.A. scholarship)
  PI: Rodrigo Dal Ben
  Co-PI: Antônio Celso de Noronha Goyos
  Agency: São Paulo Research Foundatioxn
  Funding: R$ 46,258.98 (~ $8,598.32 USD)
  Duration: 2014 – 2016 (2 years)

Travel Grant. 2nd Lancaster International Conference on Infant and Early Child Development, The Leverhulme Trust, 2017

Senior Student Presenter Grant. 41st Annual Convention of the Association for Behavior Analysis International, Society for the Advancement of Behavior Analysis, 2015

Research Award Prof. Reynaldo Camargo Neves. Best undergraduate research project in Psychology, Centro Universitário Filadélfia, 2014

SOFTWARE & WEB DEVELOPMENT

In progress

Open phonotactic calculator (R, ShinyApp)

Details: The calculator take as input any corpus (phonetic or orthographic) and calculate the phonotatic/ortographic probabilities for n-grams (mono, bi, tri …) on that corpus. The calculator will be publicly distributed as an R package.

2023

SHINE_color: controlling low-level properties of colorful images.

Details: An open source MATLAB toolbox designed for controlling low-level properties of colorful images (static or dynamic). Available: Article, GitHub.

2020

ManyBabies website major update (HTML, CSS, YAML, Markdown)

Details: The ManyBabies website serves as the first stop for new and returning collaborators and offers many resources for researchers interested in infant research. The website is open source (hosted on GitHub pages), written using markdown, yaml, and html (.css) languages, and can be accessed here.

ManyBabies collaborators Shiny map (R, ShinyApp)

Details: Interactive map of ManyBabies 247 collaborators from 36 countries, and working in 13 projects. The map was created in R & Shiny Apps and is publicly available here.

2019

Lum_fun: A set of tools to control luminance of colored images (MATLAB)

Details: Open source MATLAB script designed for matching luminance of colorful images to be used in pupillometry studies with infants. Available at: https://osf.io/auzjy/ (Version 0.2)

CONFERENCE PRESENTATIONS

(Recent presentations)

Gonzalez-Barrero, A., Byers-Heinlein, K, **Dal Ben, R.**, Bolibaugh, C. (2023, June). *Open science practices in bilingualism research: Insights and lessons from diverse experiences.* Symposia at the 14th International Symposium on Bilingualism, Sydney, Australia.

Dal Ben, R. (2023, March). *An open phonotactic and orthotactic probabilities calculator.* Oral presentation at Ambrose Research Conference, Calgary, Canada.

Prequero, I. T., **Dal Ben, R.**, & Souza, D. H. (2022, October). O papel de regularidades estatísticas na segmentação de fala e mapeamento simultâneo com estímulos visuais: um procedimento go/no-go. Oral presentation at 52ª Reunião Anual da Sociedade Brasileira de Psicologia. [Title translation: Speech segmentation and cross-situational word learning in parallel: a go/no-go design]

Dal Ben, R., Killam, H., Iliaei, S., & Byers-Heinlein, K. (2022, July). *Bilingualism affects infant cognition: Insights from new and open data*. Oral presentation at the International Conference on Infant Studies, Ottawa, Canada.

/L+/ Team, with Garcia, R., … **Dal Ben, R.**, and 22+ others (2022, July). *Western Biases in Infant Research: The state of the field and strategies for change*. Poster presentation at the International Conference on Infant Studies, Ottawa, Canada.

Dal Ben, R. (2022, May) *Speech segmentation and cross-situational word learning in parallel*. Oral presentation at the Oncoto – Proncovo: Rumos do INCT-ECCE Conference, Sao Carlos, Brazil.

ManyBabies Consortium, with Yuen, F., … **Dal Ben, R.**, and 20+ others (2022, April). *Validation of an open source, web-based, eye-tracking method (WebGazer) for research on cognitive development: Comparison of anticipatory looking behavior in toddlers tested via web-based vs. in-lab eye-tracking*. Oral presentation at Cognitive Development Society Biennial Conference, Madison, USA.

Dal Ben, R. (2022, March). *Adjacent probabilities: Do we track statistics to learn new words?* Oral presentation at Ambrose Research Conference, Calgary, Canada.

Prequero, I. T., **Dal Ben, R.**, Souza, D. H. (2020, October). *O uso de medidas eletrofisiológicas na pesquisa sobre aprendizagem estatística na aquisição de linguagem: uma revisão sistemática*. Poster presented at the 50th Reunião Anual da Sociedade Brasileira de Psicologia, Online event, Brazil.
[Title translation: Electrophysiological measures and statistical language learning: systematic review]

Prequero, I. T., **Dal Ben, R.**, Souza, D. H. (2019, October). *Efeitos da probabilidade transicional e fonotática na extração de palavras e mapeamento simultâneo com estímulos visuais ao longo de tentativas ambíguas*. Poster presented at the 49th Reunião Anual da Sociedade Brasileira de Psicologia, Joao Pessoa, Brazil.
[Title translation: Effects of transitional and phonotactic probabilities on parallel speech segmentation and cross-situational word learning]

Dal Ben, R., & Souza, D. H. (2019, September). *Looking Out the Window and Back Inside: A Behavioral Explanation of Early Speech Perception*. Talk given at the 10th International Conference of the Association for Behavior Analysis International, Stockholm, Sweden.

Dal Ben, R., Souza, D. H., & Hay, J. F. (2019, September). *The Effects of Subtle Pre-Experimental History on Speech Perception*. Poster presented at the 10th International Conference of the Association for Behavior Analysis International, Stockholm, Sweden.

Dal Ben, R., Souza, D. H., & Hay, J. F. (2019, June). *Subtle Differences in Phonotactic Probability Affect Speech Processing in Brazilian-Portuguese Adults*. Poster presented at the International Conference on Interdisciplinary Advances in Statistical Learning, Donostia-San Sebastian, Spain.

Dal Ben, R., Souza, D. H., & Hay, J. F. (2019, June). *Cross-situational word learning: a decade of research*. Poster presented at the International Conference on Interdisciplinary Advances in Statistical Learning, Donostia-San Sebastian, Spain.

Dal Ben, R., Souza, D. H., & Hay, J. F. (2019, May). *Subtle Differences in Phonotactic Probability Affect Speech Processing in Brazilian-Portuguese Adults*. Poster presented

at the 31st Annual Conference of the Association for Psychological Science, Washington, USA.

Dal Ben, R., Souza, D. H., & Hay, J. F. (2017, August). *Speech Segmentation and Cross-Situational Word Learning in Parallel*. Poster presented at the 2nd Lancaster International Conference on Infant and Early Child Development, Lancaster, UK.

Dal Ben, R. & Calixto, F. C. (2016, May). *Quem somos nós na fila do pão: reflexões não tão profundas sobre a vida na academia*. Talk given at the 14th Jornada de Análise do Comportamento da UFSCar, São Carlos, Brazil.
[Title translation: Our place in the world: not so serious reflections about life in academia]

Dal Ben, R. & Goyos, A. C. N. (2015, July). *Efeitos de modelos vocais em voz passiva versus consequências contingentes à voz ativa sobre descrições de crianças pequenas*. Poster presented at 67ª Reunião Anual da Sociedade Brasileira para o Progresso da Ciência, São Carlos, Brazil.
[Title translation: Effects of vocal models in passive voice versus active voice contingent consequences on young children descriptions]

Dal Ben, R., Calixto, F. C., & Ferreira, A. L. (2015, July). *Subutilização de uma revista popular de divulgação científica por analistas do comportamento*. Poster presented at 67ª Reunião Anual da Sociedade Brasileira para o Progresso da Ciência, São Carlos, Brazil.
[Title translation: Suboptimal use of a popular scientific communication outlet by behavior analysts]

Dal Ben, R. & Benatti, L. (2015, May). *A importância da relação entre pesquisa e prestação de serviços em análise do comportamento*. Talk given at the 13rd Jornada de Análise do Comportamento da UFSCar, São Carlos, Brazil.
[Title translation: The importance of close connections between research and application in behavior analysis]

Dal Ben, R. & Goyos, A. C. N. (2015, May). *Usos do termo reforçamento automático nas propostas de Skinner sobre o comportamento verbal*. Poster presented at III Jornada de Análise do Comportamento da UEL, Londrina, Brazil.
[Title translation: Uses of automatic reinforcement in Skinner's explanations of verbal behavior]

Dal Ben, R. & Goyos, A. C. N. (2015, May). *Authorship trends in the analysis of verbal behavior: 1982-2013*. Poster presented at 41st Annual Convention of the Association for Behavior Analysis International, San Antonio, USA.

ONGOING RESEARCH PROJECTS

Dal Ben, R., Estivalet, G. (in progress). *An open phonotactic and orthotactic probabilities calculator*.

Dal Ben, R. (in progress). *Systematic Review and Meta-analysis on Cross-situational Word Learning (from 2007 to 2023)*. See MetaLab, for partial results.

Dal Ben, R., Souza, D. H., & Hay, J. (in preparation). *Speech segmentation and cross-situational word learning in parallel with English speakers.*

Dal Ben, R., Lany, J., & Hay, J. (in progress). *Pupillometry as a tool to measure statistical learning in infancy.*

Prequero, I. T., **Dal Ben, R.**, Souza, D. H., & Cunillera, T. (in progress). *Statistical Learning and Electrophysiology measures: Speech segmentation, cross-situational word learning, and event related potentials.*

TEACHING AND MENTORSHIP

Graduate supervision
Isabella Toselli Prequero (PhD co-supervisor, 2022-present; Universidade Federal de Sao Carlos)

Courses taught
BHS310 – Quantitative Methods for Behavioural Science: Winter 2022, 2023 (Ambrose University)
Details: Undergraduate level. Course designed to give students a basic understanding of descriptive and inferential statistics. Emphasis on practical applications, analyses, and interpretation of basic statistical analyses.

PS220 – Child Development: Winter 2023, Fall 2024 (Ambrose University)
Details: Undergraduate level. Course designed to give students a foundational understanding of child development, with focus on empirical developmental science and practical case-studies.

BHS240 – Research Methods: Fall 2022 (Ambrose University)
Details: Undergraduate level. Course designed to give students a basic understanding of Research methods, including problem definition, literature review, study design, data analyses framework, and scientific reporting.

BHS410 – Basic Multivariate Statistics: Fall 2022, 2023 (Ambrose University)
Details: Undergraduate level. Course designed to give students a basic understanding of multivariate statistics. Emphasis on practical applications, analyses, and interpretation of research using multivariate statistics.

PS121 – Introduction to Psychology: Winter 2022, Fall 2022 (Ambrose University)
Details: Undergraduate level. An introductory course exploring the nature and process of the human mind and behaviour. A survey of psychological research, physiological processes, basic principles of learning, memory, thinking, language, and intelligence, life-span development issues, personality, psychological disorders and related therapy, and social psychology.

Research Methods in Psychology and Special Education: Spring 2016 (Faculdades
    Integradas do Vale to Ivaí)
Details: Course taught at a graduate level, for students pursuing a specialization in
    Behavioral interventions for children with developmental disabilities. Students were
    introduced to research ethics, design (between- vs. within- vs. single-subject),
    intervention, experimental control, data visualization, and descriptive analyses. Students
    were mainly Psychologists, Speech Therapists, and Occupational Therapists working
    with children with developmental disabilities.

Basic Learning Processes: Fall 2015 (Universidade Federal de São Carlos)
Details: Course taught at the Psychology undergraduate level. Students were introduced to
    the principles of respondent (reflex) and operant learning; to the behavioral variation and
    selection framework (selection by consequences); the concept of repertoire; and to
    specific procedures such as stimulus pairing, simple and conditional discrimination,
    shaping, reinforcement, punishment, extinction, behavioral chaining, and stimulus
    equivalence.

Experimental Analysis of Behavior: Fall 2013 (Faculdade Pitágoras)
Details: Course taught at the Psychology undergraduate level. Students were introduced to
    the behavioral variation and selection framework and were taught the principles of
    operant learning during experimental laboratory sessions using non-human subjects and
    the "Skinner box". Some of the specific procedures taught were: simple and conditional
    discrimination, shaping, reinforcement, extinction, and behavioral chaining.

Guest lectures
Open Science, Collaboration, Diversity, and Inclusion: Fall 2020 (Concordia University,
Montreal)
Details: Lecture on how Open Science practices can promote collaboration, diversity, and
    inclusion in Psychological science. This lecture was part of a course on Open and
    Reproducible Research in Psychology offered to undergraduate and graduate students.

Psychological Theories on Learning and Development: Fall 2016 and 2017 (Universidade
Federal de São Carlos)
Details: Lectures on behavioral approaches to learning and development. The lectures
    covered the classical theories by Pavlov, Watson (methodological behaviorism), and
    Skinner (radical behaviorism); and also contemporary theories such as Equivalence
    Relations by Murray Sidman and cols., and Relational Frames Theory by Barnes-
    Holmes and cols.

Language Development: Fall 2016 and 2017 (Universidade Federal de São Carlos)
Details: Lectures on Statistical Language Learning, covering perceptual attunement,
    speech segmentation, cross-situational word learning, and phonotactics.

Workshop & Colloquium

Navigating career changes while working from home – Summer 2021 (Center for Research on Brain, Language, and Music & Concordia University, Montreal)
Details: The colloquium discussed the differences, advantages, and down-sides of changing careers while working remotely. Dr. Dal Ben opened the colloquium presenting his experience when transiting from grad school to a postdoc and from a postdoc to a faculty position.

Running experiments online during the COVID-19 pandemic – Spring 2021 (Universidade Federal de São Carlos, Brazil)
Details: The colloquium discussed research strategies and software that can be used to enable reliable online data collection. Dr. Dal Ben opened the colloquium presenting how he uses *Psychopy* and *Pavlovia* to run behavioral studies remotely and the strategies he uses to ensure participant attentiveness and compliance.

Pre-registering your study: Why, how, and what if? – Fall 2020 (Center for Research on Brain, Language, and Music & Concordia University, Montreal)
Details: The workshop covered the process of pre-registering a study, including the reasons and means for doing it, as well as how to deal with deviations from a pre-registration. Researchers at all levels attended the workshop, from undergraduate students to Associate professors.

SERVICE

Reviewer for journal (ad hoc)
Infancy
Languages
Language Learning
Infant and Child Development
Scientific Report
Trends in Psychology
Psychology: Research and Review
Revista Brasileira de Terapia Comportamental e Cognitiva
[Brazilian Journal of Behavioral and Cognitive Therapy]
Perspectivas em Analise do Comportamento
[Perspectives in Behavior Analysis]
Revista Brasileira de Analise do Comportamento
[Brazilian Journal of Behavior Analysis]

Book Reviewer (ad hoc)
MIT Press

Scientific Committee
PsyArXiv – Moderation Chair
Canadian Poverty Institute – Research Associate

Community workshop
Teaching reading with comprehension to children from low-income families (Fall 2012, Centro Universitário Filadélfia)

Campus representative
Association for Psychological Science, UFSCar – 2018-2019
Graduate Program in Psychology, UFSCar – 2015-2016

Event organization
/L+/ international summer/winter school on language acquisition – 2023
/L+/ international summer/winter school on language acquisition – 2021
https://www.dpss.unipd.it/summer-school-2021
III Symposium on Infant Development at UFSCar: Language development and acquisition – 2017

OTHER SKILLS

Statistics
Proficient in a wide variety of techniques for statistical analysis, such as linear regression, ANOVA, mixed-effects models (linear, logistic), generalized additive mixed-models (nonlinear relations), Bayesian mixed-models.

Programming
Designing Psychological experiments: Psychtoolbox (MATLAB), Psychopy (Python), Experiment Builder (SR Research)
Designing online experiments: Psychopy (Python) and Pavlovia (GitLab)
Statistical analysis, visualization, wrangling, modeling, reproducible reports: R, R markdown, and Shiny Apps
Version control: git, GitHub, GitLab
Image processing: MATLAB and Python.
Website design: markdown, yaml, html (& css)

Languages
Portuguese: Native Language
English: Advanced Listener, Advanced Speaker, Advanced Reading and Writing
Spanish: Intermediate Listener, Novice Speaker, Intermediate Reading and Writing
Italian: Intermediate Listener, Novice Speaker, Intermediate Reading and Writing