

RODRIGO A. RIVEROS MIRANDA, PHD(C)

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Profile

I am a developmental neuropsychologist using neuroimaging, cognitive, behavioral, and interview methods to understand the developmental interplay among cultural values, social functioning and emotional meaning-making. I conduct interdisciplinary applied research in laboratory, school and community settings to examine adolescents' construction of ethical and purposeful visions for their adulthood, and the role of experiences and interventions. Bilingual (native Spanish).

EDUCATION

- University of Southern California.** Los Angeles, USA **2014 -**
PhD Candidate in Brain and Cognitive Sciences. (Expected June 2020)
MA in Brain and Cognitive Sciences.
Foci: Cortical and subcortical neuroimaging, integrating social/affective neuroscience and humanistic and social psychology, mixed-methods.
- University of Birmingham.** Birmingham, UK **2006-2007**
MA in Cognitive Neuropsychology and Rehabilitation.
Foci: Visual attention, brain lesions, psychophysics, behavioral analysis, experimental design.
- Universidad de Chile.** Santiago, Chile **1999-2005**
Earned Licenciatura degree and professional licensure as a psychologist.
Foci: Neuropsychological assessment, clinical research, neuropsychiatric symptoms.

RESEARCH EXPERIENCE

- Graduate research assistant:** USC Brain and Creativity Institute **2014 -**
Advisor: Professor Mary Helen Immordino-Yang
- Designed, co-wrote the proposal, and currently am leading a study examining how adolescents make meaning during storytelling across an 8-week intervention, and relations to growth in purpose, spirituality, citizenship and thriving (n=150). (Total grant: \$220K).
 - Led a field study assessing the effects of storytelling on personal goals, wellbeing, and social connectedness in high- and low-SES adolescents and older adults from LA and Boston (n=200), using surveys and video diaries.
 - Reviewed relevant literatures and collaboratively designed categories and items for a new measure of social and emotional imagination in youth. Validated the measure in a low-SES urban public school-based study using Structural Equation Modeling (n=600).
 - Responsible for a lab study predicting functional connectivity of brain networks (identified with Independent Component Analysis) from personal goals in adolescents

obtained via interviews (over 400 hours of data collection).

UX Research intern: Google – Youtube **2019**

Host Manager: Katrina Panovich, PhD

- I was selected from an extremely competitive pool (1.4% selected from thousands worldwide applicants) to conduct research at Youtube.
- Designed and conducted foundational and tactical research on quality perception in video stories with the aim of improving an automated video creation tool for Youtube.
- Kicked off collaboration with an Artificial Intelligence research team with the aim of improving the quality in video stories through examining how audiences feel represented in relation to identity, values, morals and life history.

Graduate research assistant: USC Department of Psychology **2015 - 2016**

Supervisor: Professor Steve Lopez

- Predicted brain functioning and brain connectivity at rest from emotional responses and real-world behaviors in low-SES Mexican-American persons with schizophrenia.
- Conducted in-person behavioral and cognitive testing and interviews.

Research scientist: Pontificia Universidad Católica De Chile **2009-2014**

- Founded a team assessing usability of technological devices in persons with mobility limitations.
- Developed and normed cognitive tests in Chilean Spanish-populations (both paper and pencil and web-based formats).

HONORS, FUNDING, AND AWARDS

11th USC Annual Graduate Research Symposium. **2019**

Finalist, Best Research Award. My talk, "Developing goals and imagining worlds: How do adolescents develop value-based purpose and thoughtful citizenship", was selected from a competitive pool of USC graduate students in STEM.

Latin America School for Education, Cognitive and Neural Science. **2018**

Fellow. I was selected from a highly competitive international pool (20 selected of ~250 submissions) and funded to present my program of research in a one-week long intensive symposium with senior faculty from around the world. Santiago, Chile.

Reproducibility & Transparency Neuroimaging Methods Workshop. **2017**

Fellow, awarded full funding. Selected from a competitive pool of applicants. Organized by the Society for Affective Neuroscience.

USC Global/CONICYT Fellowship at University of Southern California **2014**

I received four years of graduate funding and stipend from the Chilean government. In addition, I received a USC Global Fellowship, a competitive source of additional funding for the most promising international students.

USC Psychology Department Student Travel Grant Award **2014, 2016**
I received competitive department funding to present my research at national and international academic conferences.

First Competition for Copyright. **2012**
Awarded as co-PI for the development, norming and copyright of cognitive tests, Pontificia Universidad Catolica de Chile (ranked #1 in Latin America, Times Higher Education ranking), Santiago, Chile.

Beca Presidente de la República. **2006**
I received two years of tuition and stipend to complete my Master's degree in Neuropsychology at University of Birmingham, U.K. Nationally competitive fellowship granted by the government of Chile.

Beca Juan Gomez Millas. **1999**
I received 6 years of tuition to complete my degree in Psychology at Universidad de Chile (ranked #1 in Chile, Shanghai Ranking). Nationally competitive scholarship granted by the government of Chile.

PEER-REVIEWED JOURNAL PUBLICATIONS

(Total citations: 385; h-index=8)

Riveros, R., Pillon, B., Poupon, F., Miranda, M., Bakchine, S., & Slachevsky, A. (2019) Dissociated fronto- subcortical circuits for cognition and motivation: Evidence from a long-term study of a case with loss of psychic self-activation. *Frontiers in Psychology*, 9, 2781.

Riveros, R., Barja, S., Munoz, C., Cancino, N., Ubilla, M., Sylleros, R., Olguin, P. & Rosas, R. (2015). Cognitive effects of audiovisual stimulation in children with severe motor limitations: The value of low-cost assistive technologies. *Chilean Journal of Neuropsychology*, 10(1):19-24

Riveros, R., García, C., Aparicio, A., Hojas, A., Figueroa, P., Lange, M., Angulo, V., Olguín, P., & Rosas, R. (2014). Technology, Psychological accompaniment and neuropsychology: three ways out from Locked in Syndrome. *Chilean Journal of Neuropsychology*, 9(1):14-20

Snow, J., **Miranda, RR***, & Humphreys, G. (2013) Impaired visual sensitivity within the ipsilesional hemifield following unilateral parietal damage. *Cortex*, 49(1):158-71.

* Miranda RR= Rodrigo Riveros Miranda

Barja, S., Muñoz, C., Cancino, N., Nuñez, A., Ubilla, M., Sylleros, R., **Riveros, R.,** & Rosas, R. (2013). Audiovisual stimulation for children with severe limitation of mobility: Does it improve their quality of life? *Revista de Neurología*, 1;57(3):103-11

Muñoz, C., López, O., **Riveros, R.**, Núñez, J., Flores, P., & Slachevsky, A. (2012) The “Technology - Activities of Daily Living” Questionnaire: A Version with a Technology-Related Subscale. *Dementia and Geriatric Cognitive Disorder*, 133(6):361-371

Huepe, D.*, **Riveros, R.***, Manes, F., Couto, B., Hurtado, E., Cetkovich, M., Escobar, M., Vergara, V., Parrao, T., & Ibañez, A. (2012). Clinical, cognitive and social composite measures in schizophrenia: Evidence from probands and relatives. *Behavioral Neurology*, 25, 137-150

*Contributed equally to this work

Ibañez, A., **Riveros, R.**, Hurtado, E., Gleichgerrcht, E., Urquina, H., Herrera, E., Amoruso, L., Reyes, M., & Manes, F. (2012). The face and its emotion: right N170 deficits in structural processing and early emotional discrimination in schizophrenic patients and relatives. *Psychiatry Research*, 195(1-2):18-26

Ibanez, A., Hurtado, E., **Riveros, R.**, Urquina, H., Cardona, J., Petroni, A., Lobos, A., Barutta, J., & Manes F. (2011). Facial and semantic emotional interference: A pilot study on the behavioural and cortical responses to the dual valence association task. *Behavioral and Brain Functions*, 7(8)

Riveros, R., Chabriat, H., Flores, R., & Slachevsky, A. (2011). Donepezil for behavioral alteration following thalamus infarct: A preliminary experience using DEX questionnaire. *Frontiers in Dementia*, 2,16, 1-4

Riveros, R., Manes, F., Hurtado, E., Escobar, M., Martin-Reyes, M., Cetkovich, M., & Ibañez, A. (2010). Context-sensitive social cognition is impaired in schizophrenic patients and their healthy relatives. *Schizophrenia Research*, 116 (2-3), 297–298

Riddoch, M., **Riveros, R.**, & Humphreys, G. (2010). Functional relations trump implied motion in recovery from extinction: Evidence from the effects of animacy on extinction. *Neurocase*, 28:1-10

Aravena, P., Hurtado, E., **Riveros, R.**, Cardona, J., Manes, F., & Ibañez, A. (2010). Applauding with closed hands: neural signature of action-sentence compatibility effects. *PLoS One*, 5(7):e11751

Ibañez, A., **Riveros, R.**, Aravena, P., Vergara, V., Cardona, J., García, L., Hurtado, E., Reyes, M., Barutta, J., & Manes F. (2010). When context is difficult to integrate: Cortical measures of congruency in schizophrenics and healthy relatives from multiplex families. *Schizophrenia Research*, 126(1-3), 303-305

FORTHCOMING PAPERS

Riveros, R.^a, Yang, X., Gotlieb, R., Jahner, E., Immordino-Yang, M.H. Development and validation of a new survey to measure social-emotional imagination in adolescents and adults. In preparation.

Riveros, R.^b, & Immordino-Yang, MH. Intergenerational storytelling fosters adolescents' sense of life purpose and is mediated by increases in value-based life goals. In preparation.

Riveros, R.^c, & Immordino-Yang, MH. Development and initial validation of a content-coding scheme for identifying value-based life goals in adolescents. In preparation.

Riveros, R.^d, & Immordino-Yang, MH. Striatal-precuneus intrinsic functional connectivity predicts formulation of value-based life goals in adolescents. In preparation.

WORKING PAPERS

Riveros, R., & Immordino-Yang, MH. (2019) Sages and Seekers: Fostering purpose, identity development, inspiration and wellbeing through the folk art of intergenerational storytelling. Submitted to the Art Works program archives. National Endowment of the Arts.

Riveros, R., Sepúlveda, A., Figueroa, P., & R Rosas. Working memory and attention can be used as a new test for screening intelligence. *Papeles de Investigacion*. 4, 1-16

Mondragon, S., **Riveros, R.**, Martínez, L., Barria, R. (2014). Validation study of the scale DEX in people with neurodegenerative diseases. *Cienciactual*, 3:25-32.

BOOK CHAPTERS

Riveros, R., & Slachevsky, A. (2018): Subcortical syndromes in neuropsychology. In Labos E, Manes F, Fuentes P, & Slachevsky A. (Eds.): *Treatise on neuropsychology*. Buenos Aires: Akadia Publishing

Ibáñez, A., Escobar, M., **Riveros, R.**, & Barutta, J. (Eds.) (2009). *Social Neuroscience in South America: A multilevel approach to social and biological perspectives*. Santiago: JC Saez Editor

COGNITIVE TESTS CREATED AND NORMED

Rosas, R., Pizarro, M., & **Riveros, R.** (2018). HAL2: A cognitive test to measure proneness to accidents. Santiago: CEDETI UC

Rosas, R., Pizarro, M., & **Riveros, R.** (2017). INA: Cognitive screening test for children and adults. Santiago: CEDETI UC

Rosas, R., & **Riveros, R.** (2012) FIX - Fluid Intelligence Examination: Test, administration manual, and norms for the Chilean population. Santiago: CEDETI UC

Riveros, R., & Rosas, R. (2012) Oi – Assessment of Attentional Abilities: Test, administration manual, and norms for the Chilean population. Santiago: CEDETI UC

PEER-REVIEWED LABORATORY RESEARCH POSTERS

Riveros, R., Yang, X-F., Gan, S., Barros, I., Dang, O. & Immordino-Yang, M.H. (February, 2019) Developing goals and imagining worlds: How do adolescents build value-based life purpose and thoughtful citizenship? Paper presented in the 11th USC Annual Graduate Research Symposium, Los Angeles, CA.

Riveros, R., Yang, X-F., McCoy, D., Krone, C., Gotlieb, R., & Immordino-Yang, M.H. (September, 2018). Neural and psychosocial development underlying adolescent's abstract life goals. Poster session presented at the bi-annual conference of the Mind, Brain and Education Society, Los Angeles, CA.

Gotlieb, R., Yang, X.-F., Rhoads, S., **Riveros, R.**, & Immordino-Yang, M.H. (November, 2016). Adolescents' empathic reaction to others' triumph over adversity is positively related to intrinsic default mode network connectivity. Poster presented at the 17th annual convention of the Society for Social Neuroscience, San Diego, CA.

Gotlieb, R., Yang, X.F., Rhoads, S., **Riveros, R.**, & Immordino-Yang, M.H. (September, 2016) Adolescents' empathic reactions to others' triumph over adversity are positively related to connectivity at rest between the default mode network and the anterior insula. Poster [abstract] presented at the bi-annual conference of the International Mind, Brain and Education Society, Toronto, Canada.

Riveros, R., Yang, X., Gotlieb, R., Jahner, E., Immordino-Yang, M.H. (September, 2016) Intrinsic functional connectivity of the Default Mode Network predicts the purposefulness of youths' intended adult lives. Poster presented at the bi-annual conference of the International Mind, Brain and Education Society, Toronto, Canada.

Gotlieb, R., Yang, X.F., Rhoads, S., **Riveros, R.** & Immordino-Yang, M.H. (July, 2016) Adolescents' empathic reaction to others' triumph over adversity is positively related to intrinsic default mode network connectivity. Poster presented at the Federation of all European Neuroscience Societies, Copenhagen, Denmark.

Rhoads, S., Rotenstein, V., Yang, X., **Riveros, R.**, Immordino-Yang, M. H. (January, 2016) Adolescents' resting state brain connectivity is positively related to social media use, but negatively related to non-social media use [Abstract]. Poster presented at the 17th annual Convention of the Society for Personality and Social Psychology, San Diego, CA.

INVITED TALKS

Riveros, R., Yang, X-F., Lopez, S., Immordino, M., (2016). The neural correlates of social functioning in persons with schizophrenia. Presentation to the Center of Mental Health and Brain Development, UCLA.

Riveros, R., Gotlieb, R. & Jahner, E. (2015). Social and Emotional Imagination. Presentation to the course "Globalization and the nation state: Theories of change in education" (EDUC 650). USC.

PROFESSIONAL AFFILIATIONS

International Mind, Brain, and Education Society 2016 -

Social and Affective Neuroscience Society 2016 -

American Psychological Society 2014 -

Society of Personality and Social Psychology 2014 -