

# Pablo Barttfeld

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CONTACT INFORMATION	<b>Cognitive Sciences Group.</b> Instituto de Investigaciones Psicológicas (IIPsi). CONICET Email: <a href="mailto:cabalangofeld@gmail.com">cabalangofeld@gmail.com</a>	
FACULTY POSITIONS	<b>Researcher</b> National Scientific and Technical Research Council Argentina	2016 - present
EDUCATION	<b>Universidad de Buenos Aires (UBA), Argentina</b> PhD, Engineering	2004 - 2010
	<b>Universidad Nacional de Córdoba (UNC), Argentina</b> Master of Sciences, Biology	1997 - 2002
TRAINING	<b>Short research stay (3 months)</b> Institut du Cerveau et de la Moelle Épinière (Paris, Francia)	2019
	<b>Postdoctoral Student</b> Inserm's Cognitive Neuroimaging Unit Neurospin Center, CEA-Saclay, France Supervisors: Stanislas Dehaene and Ghislaine Dehaene-Lambertz	2013 - 2015
	<b>Short research stay (2 months)</b> Addenbrooke's Hospital Cambridge University, United Kingdom	2012
	<b>Postdoctoral Student</b> Integrative Neuroscience Laboratory Physics Department, UBA, Argentina Supervisor: Mariano Sigman	2011 - 2013
	<b>Short research stay (2 months)</b> Institut de Neurosciences Cognitives de la Méditerranée Marseille, France Supervisor: Bruno Wicker	2009
	<b>PhD. student</b> Integrative Neuroscience Laboratory Physics Department, UBA, Argentina Supervisor: Mariano Sigman	2008 - 2010
JOURNAL PUBLICATIONS	<ol style="list-style-type: none"><li>Demertzi, A., Tagliazucchi, E., Dehaene, S., Deco, G., <b>Barttfeld, P.</b>, Raimondo, F., Rohaut, B., Schiff, N., Owen, A., Laureys, S., Naccache, L., Sitt, J. Human consciousness is supported by dynamic complex patterns of brain signal coordination. <i>Science Advances</i> (2019).</li><li>Uhrig L., Sitt J., Jacob A., Tasserie J., <b>Barttfeld, P.</b>, Dupont M., Dehaene S., Jarraya B. Resting-state dynamics as a cortical signature of anesthesia in monkeys. <i>Anesthesiology</i>(2018). <b>Highlighted in “Highways of the Brain, Traffic of the Mind”.</b></li></ol>	

3. **Barttfeld\***, P., Abboud\* S, Lagercrantz H, Adén U, Padilla N, Edwards AD, Cohen L, Sigman M, Dehaene S, Dehaene-Lambertz G. A lateral-to-mesial organization of human ventral visual cortex at birth. *Brain Structure and Function* (2018). \* equal contribution.
4. Ais, J., Zylberberg, A., **Barttfeld, P.**, Sigman, M. Individual differences in the shape, bias and precision of confidence distributions across perceptual decisions. *Cognition* (2016).
5. **Barttfeld, P.**, Bekinschtein, T., Salles, A., Stamatakis, A., Adapa, R., Menon, T., Sigman, M. Frontoparietal connectivity predicts anaesthetic concentration but thalamic networks index conscious report. *Neuroimage Clinical* (2015).
6. **Barttfeld\***, P., Uhrig\*, L., Sitt\*, J., Sigman, M., Jarraya, B., Dehaene, S. A signature of consciousness in the dynamics of resting-state brain activity. *Proceedings of the National Academy of Sciences* (2015). \* equal contribution.
7. Sedeño, L., Couto, B., Melloni, M., Canales-Johnson, A., Yoris, A., Baez, S., Estevez, S., Velasquez, M., **Barttfeld, P.**, Sigman, M., Kichic, R., Chialvo, D., Manes, F., Bekinschtein, T., Ibañez, A. How do you feel when you cant feel your body?: Interoception, functional, connectivity and emotional processing in Depersonalization-Derealization Disorder. *PLoS One* (2014).
8. **Barttfeld\***, P., Petroni\*, P., Baez, S., Urquina, H., Sigman, M., Cetkovich, M., Torralva, T., Torrente, F., Lischinsky, A., Manes, F., Ibañez, A. Functional Connectivity and Temporal Variability of Brain Connections in Adults with ADHD or Bipolar Disorder: A Default Mode Network Analysis. *Neuropsychobiology* (2014). \* equal contribution.
9. Couto, B., Salles, A., Sedeño, L., Pederajordi, M., **Barttfeld, P.**, Canales-Johnson, A., Vidal Dos Santos, Y., Huepe, D., Bekinschtein, T., Sigman, M., Favaloro, R., Manes, F., Ibanez, A. The man who feels two hearts: The different pathways of interoception. *Social Cognitive and Affective Neuroscience* (2013).
10. **Barttfeld, P.**, Amoroso, L., Ais, J., Cukier, S., Bavassi, L., Tomio, A., Manes, F., Ibañez, A. Organization of brain networks governed by long-range connections index autistic traits in the general population. *Journal of Neurodevelopmental Disorders* (2013).
11. **Barttfeld, P.**, Wicker, B., Graziano, M., Leiguarda, R., Sigman, M., Distinct patterns of functional brain connectivity correlate with objective performance and subjective beliefs. *Proceedings of the National Academy of Sciences* (2013). [Comment on PNAS Blog](#).
12. Gallos, L., **Barttfeld, P.**, Havlin, S., Sigman, M., Makse, H. Collective behavior and critical fluctuations in the spatial spreading of obesity, diabetes and cancer. *Scientific Reports* (2012).
13. Zylberberg, A., **Barttfeld, P.**, Sigman, M. The construction of confidence in a perceptual decision. *Frontiers in Integrative Neuroscience* (2012).

14. **Barttfeld, P.**, Wicker, B., Cukier, S., Navarta, S., Leiguarda, R., Sigman, M. State-dependent changes of connectivity patterns and functional brain network topology in Autism Spectrum Disorder. *Neuropsychologia* (2012).
15. **Barttfeld, P.**, Wicker, B., Cukier, S., Navarta, S., Lew, S., Sigman, M. A big world network in ASD: Dynamical connectivity analysis reflects a deficit in long-range connections and an excess of short-range connections. *Neuropsychologia* (2011). [Comment on the Autism Blog “Cracking the enigma”](#).
16. Jourdan, I., **Barttfeld, P.**, Zanuto, BS. A Theory about a Role of the Hyperdirect Pathway in Pattern Expression by the Basal Ganglia. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society. Buenos Aires, Argentina* (2010).
17. Yorio, A., Tabullo, A., Wainselboim, A., **Barttfeld, P.**, Segura, E. Event-related potential correlates of perceptual and functional categories: Comparison between stimuli matching by identity and equivalence. *Neuroscience Letters* (2008).
18. Abril, A., **Barttfeld, P.**, Bucher, E. The effect of fire and overgrazing disturbs on soil carbon balance in the Dry Chaco forest. *Forest Ecology and Management* (2005).

SELECTED  
POSTERS AND  
PRESENTATIONS

1. Talk at the [Applied Math Institute](#), Santa Fe, Argentina (2019).
2. Mola D, **Barttfeld P**, Ibanez A, Godoy J, Reyna C. The effect of self and other social status in behavior and neural responses during Ultimatum Game. Second Latin-American Workshop on Experimental and Behavioural Social Sciences, Santiago, Chile (2018).
3. Talk at the conference *Mind, Society and Behavior*. CONICET, Buenos Aires, Argentina (2018).
4. Luna F, Barttfeld P, Roca J, Lupiáñez J. Measuring attentional networks together with executive and arousal vigilance: the ANTI-Vea task. Poster at XII Congreso de la Sociedad Española de Psicología Experimental, Madrid, Spain (2018).
5. Demertzi A, Tagliazucchi E, Dehaene S, Deco G, **Barttfeld, P.**, Raimondo F, Rohaut B, Schiff N, Owen A, Laureys S, Naccache L, Sitt J. Human consciousness is supported by specific dynamic coordination patterns. Poster at the Human Brain Project conference, Barcelona, Spain (2018).
6. Demertzi A, Tagliazucchi E, Dehaene S, Deco G, **Barttfeld, P.**, Raimondo F, Rohaut B, Schiff N, Owen A, Laureys S, Naccache L, Sitt J. Human consciousness is supported by temporally evolving brain processes. ePresentation session at the 4th EAN Congress in Lisbon, Portugal (2018).
7. Talk at the 2nd Latin American Brain Mapping Network Meeting. Buenos Aires, Argentina (2017).
8. Talk at the International Symposium INECO New tendencies in neurodevelopment and cognition, Buenos Aires, Argentina (2015).

9. Talk at Conference "Brain dynamics in the primate brain", Neurospin, Saclay, France (2015).
10. Vidal Dos Santos, Y., **Barttfeld, P.**, Marno, H., Sigman, M., Mehler, J., Dehaene, S., Dehaene-Lambertz, G. Metacognition in 15-month-old infants. *Budapest Conference on Cognitive Development* (2015).
11. Talk at "First Theory-Cognitive workshop", European Institute for Theoretical Neuroscience, Paris, France (2014).
12. **Barttfeld, P.**, Calvar, J., Cukier, S., Deriche, R., Leiguarda, R., Navarta, S., Sigman, M., Wassermann, D., Wicker, B. Large-scale network analysis reflects big-world characteristics in Autism Spectrum Disorders. *17th Annual Meeting of the Organization for Human Brain Mapping. Quebec* (2011).
13. **Barttfeld, P.**, Petroni, A., Urquina, H., Sigman, M., Cetkovich, M., Torralva, T., Torrente, F., Bez, S., Lischinsky, A., Manes, F., Ibaez, A. Default mode network (DMN) impairments in adults with ADHD and Bipolar Disorder: Connectivity and Variability. *3rd International Congress on ADHD, Berlin* (2011).
14. **Barttfeld, P.**, Sigman, M., Cukier, S., Navarta, S., Calvar, J., Leiguarda, R., Wicker, B. Intrinsic brain connectivity in Autism Spectrum Disorders. *16th Annual Meeting of the Organization for Human Brain Mapping, Barcelona* (2010).
15. **Barttfeld, P.**, Jourdan, I., Yorio, A., Zanutto, B., Seitz, A. Reward driven learning of associative rules in the absence of awareness. *Society For Neuroscience 38 Annual Meeting. USA* (2007).

#### GRANTS AND SCHOLARSHIPS

<b>Proyectos de grupos de reciente formación.</b> Director	2018
CONICET short-stay grant for young researchers	2018
<b>Primar Grant.</b> Co-director	2018
<b>PICT Young Investigator.</b> PI	2015
Return home grant RAÍCES	2015
INSERM postdoctoral grant	2013
James S. McDonnell Foundation. II Latin American School for Education, Cognitive and Neural Sciences	2012
CONICET travel grant to University of Cambridge, UK	2012
Post-doctoral scholarship, CONICET	2011
Raul Carrea post-graduate Fellowship	2010
Travel grant by CNRS, France (ECOS project) to France	2009
PhD scholarship, University of Buenos Aires	2004
Santa Fe Institute's Summer School. Qingdao, China	2004

#### TEACHING EXPERIENCE

<b>Biological Systems</b>	2005 - 2018
Assistant professor	
Engineering school	
Buenos Aires University, Argentina	

**MENTORING****MSc. students**

Julieta Aguirre. Psychology, UNC	2019
Santiago Alcaide. Biomedical Engineering, UNC	2018
Alvaro Romano. Biomedical Engineering, UNC	2018
Marcos Grillo. Psychology, Favaloro University	2018
Joaquín Ais. Biology, UBA	2018

**PhD students**

Fernando Luna. Psychology, UNC	2019
Matías Palmucci (codirector). Neuroscience, UNC	2018

**REVIEWING  
EXPERIENCE****Thesis committee member**

Soledad Picco. MSc. Biology, UBA	2018
Santiago Redondo. PhD. Psychology, UNC	2018
Lucas Sedeño. PhD. Medicine, Favaloro University	2018
Rocío Alvarez Mence. MSc. Physics, UBA	2016
María González Gadea. PhD, Neuroscience, UNC	2015
Federico Santa Coloma. MSc. Engineering, UBA	2011

**Scientific journal reviewing**

Nature Communications, Frontiers in Human Neuroscience, Frontiers in Aging Neuroscience, Neuroimage, Cerebral Cortex, Cognitive Affective and Behavioral Neuroscience, Human Brain Mapping, Journal of Psychiatry Research, Autonomic Neuroscience, Translational Psychiatry, Journal of Neurophysiology, Learning and Individual Differences, Eye and Vision.

**Grant Reviewing**

Agencia Nacional de Promoción Científica y Tecnológica (Arg.)	2017
Consejo Nacional de Investigaciones Científicas y Técnicas (Arg.)	2019