

[CURRICULUM VITAE
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ResearchGate : https://www.researchgate.net/profile/Francisco_Barcelo
Google Scholar: scholar.google.es/citations?user=4isBHeQAAAAJ&hl=es
H-index: 22 (WoS), 24 (Scopus)
Citations: 2003 (WoS), 2278 (Scopus)

EDUCATIONAL HISTORY

- 1989-1993 PhD. in Psychology, University of Southampton, England, UK (awarded February 1993). Supervisor: Professor Anthony Gale.
- 1983-1988 BSc. 1st Honours in Psychology, University of Murcia, Spain.

PROFESSIONAL EXPERIENCE

- 2010-today Full Professor of Neuropsychology, Department of Psychology, University of the Balearic Islands, Spain
- 2002-2009 Associate Professor (tenured) of Neuropsychology, Department of Psychology, University of the Balearic Islands, Spain
- 2000-2002 Associate Professor of Biological Psychology, Department of Psychology, University of the Balearic Islands, Spain
- 1995-2000 Assistant Professor of Biological Psychology, Department of Psychobiology, Complutense University of Madrid, Spain
- 1994-1995 Post-doctoral Research Fellow, Brain Mapping Unit, Pluridisciplinary Institute, Complutense University of Madrid
- 1991-1992 Teaching Assistant, University of Southampton, England

Society Membership

Society for Cognitive Neuroscience (2004-2005)
Society for Psychophysiological Research (since 1998)
Sociedad Española de Psicofisiología (Secretary from 1999-2005)

Honors/Awards

1989	"British Council" award for post-graduate education in the UK.
1992	Award and grant from the Committee of Advanced Studies, Southampton University, England.
1998	Research Fellowship from the Fundación Jaime del Amo, Universidad Complutense, Spain.

National and International Conferences

(* Indicates invited address;

+ Indicates address to be given in 2017).

Selected presentations given at meetings of:

BRAINGLOT Workshop, University of Barcelona	2008*
British Association of Cognitive Neuroscience	2007*
British Psychophysiological Society	1993*, 1995
Carmel 2005 - Conference on 'The P300 at Forty'	2005*
Cognitive Neuroscience Society	2007*, 2008, 2011
European Congress of Psychology	2005*, 2009
European Neuroscience Association	1994, 2012
Federation of European Psychophysiology Societies	2003*
First Spanish Seminar in Cognitive Neuroscience	1998*
International Conference on Cognitive Neuroscience (ICON)	2005, 2008*, 2011*, 2014, 2017
International Organization for Psychophysiology	1996, 2016*
International Neuropsychology Society	2007, 2012, 2013
Organization of Human Brain Mapping	1995, 2010
Sociedad Española de Psicofisiología	1997, 1999*, 2002, 2004, 2006*
Society for Neuroscience	2000, 2002
Society for Psychophysiological Research	1998-99, 2005, 2010-11, 2017

Selected presentations given at Universities & Institutions:

Caledonian University, Glasgow, Department of Psychology	2004*
Max Planck Institute for Human Cognitive & Brain Sciences	2006*
Ecole Normale Supérieure, INSERM U742	2006*
University of Amsterdam, CSCA Research	2009*
University of Newcastle, Australia	2014*
University of Southampton, Department of Psychology	1991*, 1992*
Universidad Nacional de Educación a Distancia	1997*
University Autónoma of Madrid, School of Medicine	1996*
University of Portsmouth, Department of Psychology	1997*, 2007*
University of Hannover, School of Medicine	2017*

Extramural Peer Review and National Committees

Chair of the Psychology Section, Spanish National Agency for the Evaluation of Science (ANEP) 2012-2015 (<http://www.aei.gob.es/>).

Ad Hoc Reviewer Agencia Nacional de Evaluación y Prospectiva (ANEP)	2003-2017
Ad Hoc Reviewer, Agencia de Calidad Universitaria de las Islas Baleares	2004-2009
Ad Hoc Reviewer for the European Research Executive Agency, Brussels	2007-2017

Editorial Boards

<i>Frontiers in Human Neuroscience</i>	2007-2009
<i>Psychophysiology</i>	2017-

Journal Reviewer (1995 - today)

Biological Psychology, BMC Neuroscience, Brain & Cognition, Brain Research, Brain Structure and Function, Brain Topography, Cerebral Cortex, Clinical Neurophysiology, Cognition, Cognitiva, Cognitive and Affective Behavioral Neuroscience, Cognitive Brain Research, Cortex, European Journal of Neuroscience, Experimental Brain Research, Frontiers in Human Neuroscience, Frontiers in Psychology, Human Brain Mapping, Journal of Clinical and Experimental Neuropsychology, Journal of Cognitive Neuroscience, Journal of Neuroscience, Journal of Child Psychology and Psychiatry, Journal of Psychophysiology, NeuroImage, Neuropsychologia, Neuropsychology, Neuroscience Letters, Neuroscience and Biobehavioral Reviews, Physiology & Behaviour, PLoS Computational Biology, Psicothema, Psychophysiology, Quarterly J. Experimental Psychology, Seminars in the Neurosciences, Scandinavian Journal of Psychology, Scientific Reports.

Extramural Research Support

As Principal Investigator:

- British Council (UK, 1990-1992)
- Fundación Mapfre Medicina (Spain 1999)
- Research Council of Madrid (1999; > 30.000 €)
- Research Council of the Balearic Islands (2004-2014; > 225.000 €)
- Spanish Ministry of Science and Innovation (2003-2017; > 700.000 €)
- Fundació La Marató de TV3 (2010-2014; > 199.000 €)

TEACHING

Psychobiology Dept., Complutense University of Madrid 1995-2000

Undergraduate courses (enrolments):

Introduction to Neuroscience (150)

Physiological Psychology (150)

Graduate courses (enrolments):

Cognitive Neuropsychology (15)

Cognitive Neuroscience (15)

Department of Psychology, University of Illes Balears 2000-today

Undergraduate courses (enrolments):

Human Neuropsychology (85)

Clinical Neuropsychology (20)

Graduate courses (enrolments):

Neuropsychology of Frontal Lobe Function (2)

Graduate Students

José Antonio Periañez, Ph.D. in Psychology 2002-2005

Universidad Complutense de Madrid, Spain

Daniel Adrover-Roig, Ph.D. in Psychology 2005-2009

Universitat de les Illes Balears, Spain

Mareike Finke, Ph.D. in Psychology 2010-2013

Universitat de Barcelona, Spain

Gema Díaz-Blancat, PhD candidate 2013-2018 (planned)

Universidad Complutense de Madrid, Spain

Selected publications

A. Papers.

Researcher ID : <http://www.researcherid.com/rid/B-3629-2011>

Google Scholar: scholar.google.es/citations?user=4isBHeQAAAAJ&hl=es

1. Bridges, C.R., Barceló, F. (submitted). Functional dissociation of latency-variable, stimulus- and response-locked P3-like positivities indexing reactive control of task-switching.
2. Díaz-Blancat, G., García-Prieto, J., Maestú, F., Barceló, F. (in press). Fast neural dynamics of proactive cognitive control in a task-switching analogue of the Wisconsin Card Sorting Test. *Brain Topography*. <http://rdcu.be/ygZa>.
3. Barceló F, Cooper PS. (in press). An information theory account of late frontoparietal ERP positivities in cognitive control. *Psychophysiology*, in press. doi: 10.1111/psyp.12814.
4. Enriquez-Geppert S, Barceló F. (in press). Multisubject decomposition of event-related positivities in cognitive control: Tackling age-related changes in reactive control. *Brain Topography*, in press.
5. Cooper PS, Darriba Á, Karayanidis F, Barceló F. (2016). Contextually sensitive power changes across multiple frequency bands underpin cognitive control. *Neuroimage*, 132, 499-511. doi: 10.1016/j.neuroimage.2016.03.010.
6. Weeda, W.D., van der Molen, M.W., Barceló, F., & Huizinga, M. (2014). A Diffusion Model Analysis of Developmental Changes in Children's Task Switching. *Journal of Experimental Child Psychology*, 126, 178–197.
7. Prada, L., Barceló, F., Escera, C., & Herrmann, C.S. (2014). EEG delta oscillations index inhibitory control of contextual novelty to both irrelevant distracters and relevant task-switch cues. *Psychophysiology*, 51: 658-672. DOI: 10.1111/psyp.12210
8. Hernandez, M., Martin, C.D., Barceló, F., & Costa, A. (2013). Where is the bilingual advantage in task-switching? *Journal of Language and Memory*, 69, 257-276.
9. Finke, M., Escera, C., & Barceló, F. (2012). The effects of foreknowledge and task-set shifting as mirrored in cue- and targetlocked event-related potentials. *PLoS ONE*, 7, e49486.
10. Adrover-Roig, D., Sese, A., Barceló, F., & Palmer, A. (2012). A latent variable approach to executive control in healthy ageing. *Brain & Cognition*, 78, 284-299.
11. Parmentier, F.B., Elsley, J.V., Andres, P., & Barceló, F. (2011). Why are auditory novels distracting? Contrasting the roles of novelty, violation of expectation and stimulus change. *Cognition*, 119, 374-380.
12. Martin, C.D., Barceló, F., Hernandez, M., & Costa, A. (2011). The time course of the asymmetrical “local” switch cost: Evidence from event-related potentials. *Biological Psychology*, 86, 210-218.
13. Garcia-Garcia, M., Barceló, F., Clemente, I.C., & Escera, C. (2011). COMT and ANKK1 gene-gene interaction modulates contextual updating of mental representations. *Neuroimage*, 56, 1641-1647.

14. Finke, M., Barceló, F., Garolera, M., Cortinas, M., Garrido, G., Pajares, M., & Escera, C. (2011). Impaired preparatory re-mapping of stimulus-response associations and rule-implementation in schizophrenic patients--the role for differences in early processing. *Biological Psychology*, 87, 358-365.
15. Voytek, B., Davis, M., Yago, E., Barceló, F., Vogel, E.K., & Knight, R.T. (2010). Dynamic neuroplasticity after human prefrontal cortex damage. *Neuron*, 68, 401-408.
16. Garcia-Garcia, M., Barceló, F., Clemente, I.C., & Escera, C. (2010). The role of DAT1 gene on the rapid detection of task novelty. *Neuropsychologia*, 48, 4136-4141.
17. Garcia-Garcia, M., Barceló, F., Clemente, I.C., & Escera, C. (2010). The role of the Dopamine Transporter DAT1 genotype on the neural correlates of cognitive flexibility. *European Journal of Neuroscience*, 31, 754–760.
18. Nyhus, E., & Barceló, F. (2009). The Wisconsin Card Sorting Test and the cognitive assessment of prefrontal executive functions: a critical update. *Brain and Cognition*, 71, 437-451.
19. Adrover-Roig D, Barceló F (2010). Individual differences in aging and cognitive control modulate the neural indexes of context updating and maintenance during task switching. *Cortex*, 46, 434-450.
20. Perez Velazquez JL, Barceló F, Hunga Y, Leshchenkoa Y, Nenadovica V, Belkas J, Raghavana V, Briand J, Garcia Dominguez L (2009). Decreased brain coordinated activity in autism spectrum disorders during executive tasks: Reduced long-range synchronization in the fronto-parietal networks. *Int. J. Psychophysiology*, 73, 341-349.
21. Barceló F (2009). The emotional consequences of being distracted. *Front. Neurosci.*, 3, 10: 6–7. doi: 10.3389/neuro.01.010.2009.
22. Sanchez-Cubillo I, Perianez JA, Adrover-Roig D, Rodriguez-Sanchez JM, Rios-Lago M, Tirapu, J., Barceló, F. (2009). Construct validity of the Trail Making Test: role of task-switching, working memory, inhibition/interference control and visuo-motor abilities. *Journal of the International Neuropsychological Society*, 15(3): 438-50.
23. Periañez JA, Barceló F. (2009). Updating sensory versus task representations during task-switching: Insights from cognitive brain potentials in humans. *Neuropsychologia*, 47, 1160-1172, doi:10.1016/j.neuropsychologia.2009.01.014.
24. Barceló, F., Periañez, J.A., & Nyhus, E. (2008). An informational theoretical approach to task-switching: Evidence from cognitive brain potentials in humans. *Frontiers in Human Neuroscience*, 1: 13. doi: 10.3389/neuro.09/013.2007.
25. Barceló, F., and Knight, R. T. (2007). Theoretical sequelae of a chronic neglect and unawareness of prefrontotectal pathways in the human brain. *Behavioral and Brain Sciences*, 30: 83-85.
26. Barceló, F. & Knight, R.T. (2007). An information theoretic approach to contextual processing in the human brain: Evidence from prefrontal lesions. *Cereb Cortex*, 17: i51-i60.
27. Perianez, J. A., Rios-Lago, M., Rodríguez-Sánchez, J. M., Adrover-Roig, D., Sanchez-Cubillo, I., Crespo-Facorro, B., Quemada, J. I., and Barceló, F. (2007). Trail Making Test in traumatic brain injury, schizophrenia, and normal ageing: Sample comparisons and normative data. *Archives of Clinical Neuropsychology*, 22: 433-447.
28. Barceló, F., Escera, C., Corral, M. J., and Perianez, J. A. (2006). Task switching and novelty processing activate a common neural network for cognitive control. *Journal of Cognitive Neuroscience* 18, 1734-1748.

29. Periañez, J. A., Maestú, F., Barceló, F., Fernández, F., Amo, C., and Ortiz Alonso, T. (2004). Spatiotemporal brain dynamics during preparatory set shifting: MEG evidence. *Neuroimage* 21, 687-695.
30. Yago, E., Duarte, A., Wong, T., Barceló, F., and Knight, R. T. (2004). Temporal kinetics of prefrontal modulation of the extrastriate cortex during visual attention. *Cognitive, Affective, and Behavioral Neuroscience* 4, 609-617.
31. Barceló, F. (2003). The Madrid card sorting test (MCST): a task switching paradigm to study executive attention with event-related potentials. *Brain Res Protocols* 11, 27-37.
32. Barceló, F., Periañez, J. A., and Gomila, A. (2003). Tidying up sensory stores with supraordinate representations. *Behavioral and Brain Sciences* 26, 730-731.
33. Barceló, F., and Knight, R. T. (2002). Both random and perseverative errors underlie WCST deficits in prefrontal patients. *Neuropsychologia* 40, 349-356.
34. Barceló, F., Periañez, J. A., and Knight, R. T. (2002). Think differently: a brain orienting response to task novelty. *NeuroReport* 13, 1887-1892.
35. Barceló, F. (2001). Does the Wisconsin Card Sorting Test measure prefrontal function? *Spanish Journal of Psychology* 4, 79-100.
36. Barceló, F., Muñoz-Céspedes, J. M., Pozo, M. A., and Rubia, F. J. (2000). Attentional set shifting modulates the target P3b response in the Wisconsin card sorting test. *Neuropsychologia* 38, 1342-1355.
37. Barceló, F., Suwazono, S., and Knight, R. T. (2000). Prefrontal modulation of visual processing in humans. *Nature Neuroscience* 3, 399-403.
38. Barceló, F. (1999). Electrophysiological evidence of two different types of error in the Wisconsin card sorting test. *NeuroReport* 10, 1299-1303.
39. Barceló, F., and Rubia, F. J. (1998). Non-frontal P3b-like activity evoked by the Wisconsin Card Sorting Test. *NeuroReport* 9, 747-751.
40. Barceló, F., and Gale, A. (1997). Electrophysiological measures of cognition in biological psychiatry: Some cautionary notes. *Int. J. Neuroscience* 92, 219-240.
41. Barceló, F., Martín-Loeches, M., and Rubia, F. J. (1997). Event-related potentials during memorization of spatial locations in the auditory and visual modalities. *Electroencephalography and Clinical Neurophysiology* 103, 257-267.
42. Martín-Loeches, M., Barceló, F., and Rubia, F. J. (1997). Sources and topography of supramodal effects of spatial attention in ERP. *Brain Topography* 10, 1-14.
43. Barceló, F., Sanz, M., Molina, V., and Rubia, F. J. (1997). The Wisconsin Card Sorting Test and the assessment of frontal function: A validation study with event-related potentials. *Neuropsychologia* 35, 399-408.
44. Barceló, F., Gale, A., and Hall, M. (1995). Multichannel EEG power reflects information processing and attention during visual orienting, and predicts performance in a subsequent recognition task. *Journal of Psychophysiology* 9, 32-44.
45. Barceló, F., Hall, M., and Gale, A. (1995). A psychophysiological inquiry into the nature of the Sokolovian orienting response comparator model: skin conductance and EEG data. *Biological Psychology* 41, 147-166.

B. Book chapters.

1. Andrés, P.; Funes, M.J.; **Barceló, F.** (2016). Neurociencia cognitiva de las funciones ejecutivas: una visión actual. En: M. T. Bajo, L. J. Fuentes, J. Lupiáñez, y M.R. Rueda (Coords.), *Mente y cerebro: De la psicología experimental a la neurociencia cognitiva*. Alianza Universidad: Madrid. pp. 1 - 15. (España): Alianza Editorial. Available in: <http://www.alianzaeditorial.es/libro.php?id=4210135&id_col=100508&id_subcol=100518>.
2. Díaz, G.; García-Prieto, J.; **Barceló, F.** (2015). Estudio de conectividad en las funciones ejecutivas y control cognitivo. Maestú, F., Pereda, E. & del Pozo, F. (Eds.): *Conectividad Funcional y Anatómica en el Cerebro Humano. Análisis de señales y aplicaciones en ciencias de la salud*. pp. 149 - 170. (España): Elsevier, 2015. Available in: <<https://books.google.com/books?isbn=8490228191>>. ISBN 978-84-9022-525-7
3. Periañez, J.A., Ríos, M., **Barceló, F.**, Madrid, E., Ruz, M. (2008). Electroencefalografía y potenciales evocados. In *Neuroimagen: Técnicas y Procesos Cognitivos*. Maestú, F., Ríos, M., y Cabestrero, R. (eds.) (Madrid, Elsevier-Masson), pp. 281-316. ISBN: 978-84458-1776-6.
4. Nowak, R., Escera, C., Corral, M.J., **Barceló, F.** (2008). Electroencefalografía y potenciales evocados. In *Neuroimagen: Técnicas y Procesos Cognitivos*. Maestú, F., Ríos, M., y Cabestrero, R. (eds.) (Madrid, Elsevier-Masson), pp. 155-172. ISBN: 978-84458-1776-6.
5. Muñoz-Céspedes, J.M., **Barceló, F.**, Pozo, M.A. & Rubia, F. Evaluación neuropsicológica de las disfunciones atencionales en traumatismos craneoencefálicos. In J. Botella & V. Ponsoda (Eds.), *La Atención: Un enfoque pluridisciplinar*. Valencia: Promolibro, 1998. Pp. 361-372.
6. **Barceló, F.**, Periañez, J. A., and Knight, R. T. (2003). A new ERP paradigm for studying individual differences in the executive control of attention. In *The Cognitive Neuroscience of Individual Differences*, I. Reinvang, M. W. Greenlee, and M. Herrmann, eds. (Oldenburg, bis-Publishers), pp. 47-62.