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FACULDADE DE PSICOLOGIA
E DE CIÊNCIAS DA EDUCAÇÃO
UNIVERSIDADE DE COIMBRA

Curriculum Vitae

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Almeida

This document was written as part of my application to the position of Full Professor at the Faculty of Psychology and Educational Sciences of the University of Coimbra for the international call for Full Professor (“Concurso internacional para ocupação de um posto de trabalho da carreira docente universitária, na categoria de professor catedrático, em regime de contrato de trabalho em funções públicas por tempo indeterminado”) for the area of Psychology, subarea of Cognitive Neuroscience (ref.

IT136-23-12878)

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FOREWORD TO *CURRICULUM VITAE*

As part of my application to the position of Full Professor in the field of Psychology, subarea of Cognitive Neuroscience, under a public service employment contract of unspecified duration at the Faculty of Psychology and Educational Sciences of the University of Coimbra, I hereby present a foreword to my *Curriculum Vitae* that specifies my full professional background in higher education institutions, as well as a summary that clearly demonstrates my specialization in Psychology and, specifically, in Cognitive Neuroscience in its basic and fundamental aspects.

i. Full professional background in higher education institutions

I obtained my PhD in Psychology from Harvard University in March 2011. From that moment onwards, I have been hired in different Portuguese Universities as a Professor under different kinds contract types and categories – these different contracts are listed below (I exclude from this list all fellowships and grants – for a full description see my *Curriculum Vitae*). Currently, I am an Associate Professor with Habilitation at the Faculty of Psychology and Educational Sciences of the University of Coimbra, a position I started in June 2020.

Below is the list of contracts with higher education institutions that I have held during my career:

- 2020 – present Associate Professor with Habilitation in Psychology, Faculty of Psychology and Educational Sciences, University of Coimbra, Portugal.
- 2018 – present Associate Professor in Psychology, Faculty of Psychology and Educational Sciences of the University of Coimbra, Portugal.
- 2013 – present Assistant Professor Auxiliar in Psychology, Faculty of Psychology and Educational Sciences of the University of Coimbra, Portugal.
- 2011 – 2012 Marie Curie Fellow (Researcher) - Welcome II Portugal Programme; Psychology; Faculty of Psychology, University of Lisbon, Portugal.
- 2010 – 2012 Invited Assistant Professor in Psychology; School of Psychology, University of Minho, Portugal.

ii. Summary of the adequacy of my profile to the area of Psychology, subarea of Cognitive Neuroscience in its basic and fundamental aspects.

My academic and scientific career clearly attests to my specialization in Psychology and Cognitive Neuroscience, and, thus, the fit of my CV with the call IT136-23-12878 for a Full Professor in Psychology subarea of Cognitive Neuroscience at the Faculty of Psychology and Educational Sciences of the University of Coimbra. Below I present several points that unequivocally demonstrate this specialization and adequacy:

1) My academic training was completed exclusively in Psychology and Cognitive Neuroscience, and in Faculties or Departments of Psychology. Specifically, I obtained my “Licenciatura” degree (5-year BA) in Psychology in 2003 at the Faculty of Psychology and Educational Sciences of the University of Lisbon. I later obtained a Master's degree (2008), and a PhD (2011) in Psychology specialization in Cognition, Brain and Behavior, both at the Department of Psychology at Harvard University, USA.

2) All my research has focused on central topics in Psychology and Cognitive Neuroscience. This fact is reflected in the various aspects of my work, as described below. Thus, my specialization in Psychology and Cognitive Neuroscience is evident in:

2.1) The fact that my scientific articles are published in the most relevant journals of General Psychology, as well as Cognitive Neuroscience and Cognitive Psychology. Major examples of the centrality of the area of Psychology and Cognitive Neuroscience in my work are the articles published in the two most important journals of General Psychology – *Psychological Science* and *Journal of Experimental Psychology: General* – or in journals of Cognitive Neuroscience and Cognitive Psychology – e.g.: *Cortex*, *Journal of Cognitive Neuroscience* – or even the fact of my articles in journals that are more general (e.g., *Proceedings of the National Academy of Science of the United States of America*, *Current Biology*) have been published in the Psychology and Cognitive Neuroscience sections.

2.2) The fact that the projects for which I was/am Principal Investigator or Co-Investigator – and which consist of two projects funded by the BIAL Foundation, seven by the Foundation for Science and Technology, one by DAAD/CRUP, one by the *European Research Council* (ERC Starting Grant *ContentMAP*), and one by

the *European Research Area* (ERA Chair *CogBooster*), in a total of more than 5.7 million euros since 2010 – have been funded in the area of Psychology and Cognitive Neuroscience. Of these, I would highlight the ERC Starting Grant *ContentMAP*, funded within the panel "SH4 – The Human Mind and its Complexity" (the panel that encompasses Psychology and Cognitive Neuroscience) of the prestigious *European Research Council*, and which is the first ERC awarded to Portugal or to Portuguese researchers by this panel and in the area of Psychology, and the ERA Chair *CogBooster* that is focused precisely in implementing a permanent research team working on Cognitive Neuroscience.

2.3) The fact that the PhD students supervised by me are/were enrolled in PhD programs in Psychology, some of them in the subarea of Cognitive Neuroscience. This is also true for master's students I supervise (Marter's degree in Psychology or Biomedical Engineering, subarea of Neuroimaging).

2.4) The fact that the various awards I have obtained during my career also fall within the disciplinary area of Psychology and areas within Cognitive Neuroscience. The Young Investigator awards from the Portuguese Association of Psychology and the Portuguese Association of Experimental Psychology are perfect examples of the suitability of my work to the area.

3) My specialization in Psychology and Cognitive Neuroscience is also evident in the fact that I have been selected as an expert in the field of Psychology for several national and international scientific evaluation panels. Specifically, the participation as a specialist in: the Social Sciences and Humanities Panel for *Consolidator Grants* of the Swiss National Science Foundation (temporary backup schemes - *equivalent to the ERC*); the R&D Project Evaluation Committee in the area of Psychology of the Foundation for Science and Technology, Portugal; the *Medical Research Council, UK*; the Italian Ministry of Education, Universities and Research (MIUR); and the *European Commission* for the evaluation of proposals submitted for the 2018 *Marie Skłodowska-Curie Individual Fellowships (MSCA-IF)*, or the ERC Consolidator grants, are examples of my role in scientific assessment processes in the area of Psychology and Cognitive Neuroscience.

4) The centrality of Psychology and Cognitive Neuroscience in my teaching activities is also clear. All the courses that I taught at all levels were in Faculties or Departments of Psychology, and were focused on Psychology and Cognitive Neuroscience topics. For

example, since December 2012 I have been teaching several compulsory courses within the “Licenciatura” and Master's Degrees in Psychology of the Faculty of Psychology and Educational Sciences of the University of Coimbra. These courses are *Neuropsychology*, *Cognitive Neuroscience*, *Advanced Topics in Cognitive Neuroscience*, *Cognitive Affective and Social Neuroscience*, and *Behavioral Neurosciences*. In addition, I have created two Master’s degrees in Psychology and Neuropsychology, and the Cognitive Neuroscience branch of the Doctorate in Psychology of the Faculty of Psychology and Educational Sciences of the University of Coimbra.

5) Finally, my involvement in scientific societies also demonstrates my specialization and the adequacy of my *Curriculum Vitae* to the area of Psychology and Cognitive Neuroscience. For example, I am currently a member of the Board of the Portuguese Association of Experimental Psychology. I was also a member of the *Association for Psychological Science*, and was also a member of the board of the *Behavioral Neurology Section of the Portuguese Society of Neurology* – a section that aims to integrate Neurology and Cognitive Neuroscience and Cognitive Psychology.

To sum up, I believe it is clearly the fit between my *Curriculum Vitae* and the area in which this call is open – Psychology and Cognitive Neuroscience

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1. PERSONAL DETAILS

Full name (name in publications)

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2. ACADEMIC TRAINING

2.1 Academic degrees

- 2020 (June) Habilitation in Psychology, Faculty of Psychology and Educational Sciences of the University of Coimbra, Portugal.
- 2006 – 2011 Doctoral degree in Psychology (Cognition, Brain and Behavior), Department of Psychology, Harvard University, Cambridge, MA 02138, EUA
Dissertation “Unconscious processes reveal different circuits for visual object recognition” supervised by Alfonso Caramazza and Ken Nakayama.
Thesis Committee: Alfonso Caramazza, Ken Nakayama, Patrick Cavanagh e George Alvarez.
- 2006 – 2008 Master’s in Psychology (AM), Department of Psychology, Harvard University, Cambridge, MA 02138, EUA.
- 1998 – 2003 “*Licenciatura*” (5-year BA) in Psychology, Faculty of Psychology and Educational Sciences of the University of Lisbon, Portugal. Final grade – 16/20.
Thesis “Cognitive and Neural Organization of Knowledge about Con-specifics” supervised by Leonel Garcia Marques.

2.2 Other academic training

- August 2016 *UCLA/Semel NeuroImaging Training Program (NITP)* - University of California, Los Angeles, USA. Advanced course for neuroimaging data analysis organized by Mark Cohen.
- February 2015 *Representational Similarity fMRI data analysis workshop*. MRC, Cambridge University, Cambridge, UK. Advanced course for neuroimaging data analysis organized by Nikolaus Kriegeskorte and collaborators.
- March 2011 *BrainVoyager – fMRI data analysis*. Faculty of Medicine of the University of Coimbra, Portugal. Advanced course for neuroimaging data analysis organized by the Associação Nacional de Imagiologia Funcional Cerebral and by Brain Innovation.

March 2008 *Mini-Fellowship in Transcranial Magnetic Stimulation (TMS)*,
Harvard Medical School of Continuing Medical Education, Boston,
MA, USA and Laboratory for Magnetic Brain Stimulation Beth Israel
Deaconess Medical Center, Boston, MA, EUA.

3. ACADEMIC EMPLOYEMENT

- 2020 – present Associate Professor with Habilitation. Faculty of Psychology and Educational Sciences of the University of Coimbra, Portugal.
- 2018 – 2020 Associate Professor. Faculty of Psychology and Educational Sciences of the University of Coimbra, Portugal.
- 2018 – present Coordinator of the *Cognition Brain and Behavior* research line of the Center for Research in Neuropsychology and Cognitive-Behavioral Interventions (CINEICC).
- 2018 – present Member of the Board of Directors of the Center for Research in Neuropsychology and Cognitive-Behavioral Interventions (CINEICC).
- 2017 – 2018 Unpaid leave of absence to accompany my partner's tenure at OECD under article 282 of the *Lei Geral de Trabalho em Funções públicas*.
- 2014 – 2017 Director of the Coimbra site of the "*Principles and Practice of Clinical Research*" course. Faculty of Psychology and Educational Sciences of the University of Coimbra, Portugal, and Harvard Medical School, USA.
- 2013 – present Director and Principal Researcher of the Proaction Laboratory (the Laboratory for Perception and Recognition of Objects and Actions). Faculty of Psychology and Educational Sciences of the University of Coimbra, Portugal.
- 2013 – 2018 Assistant Professor at Faculty of Psychology and Educational Sciences of the University of Coimbra, Portugal.
- 2011 – 2012 *Marie Curie Fellow - Welcome II Portugal Programme*. Faculty of Psychology of the University of Lisbon, Portugal.
- 2011 – 2012 Post-Doctoral Researcher at the Center for Research in Psychology of the Faculty of Psychology of the University of Lisbon, Portugal.
- 2010 – 2012 Invited Assistant Professor at the School of Psychology of the University of Minho, Portugal.
- 2006 – 2010 Doctoral researcher/student under the supervision of Prof. Alfonso Caramazza. Cognitive Neuropsychology Laboratory, Department of Psychology, Harvard University, Cambridge, MA 02138, EUA.

- 2006 – 2010 Doctoral researcher/student under the supervision of Prof. Ken Nakayama. Harvard University Vision Sciences Laboratory, Department of Psychology, Harvard University, Cambridge, MA 02138, EUA.
- 2003 – 2006 Research Assistant under the supervision of Prof. Alfonso Caramazza. Cognitive Neuropsychology Laboratory, Department of Psychology, Harvard University, Cambridge, MA 02138, EUA.
- 2002 – 2003 Research Assistant in Social Cognition under the supervision of Prof. Leonel Garcia Marques. Social Cognition Laboratory, Faculty of Psychology and Educational Sciences of the University of Lisbon, Portugal.
- 2002 Visiting Researcher under the supervision of Prof. Glyn Humphreys. Behavioural Brain Sciences Centre, School of Psychology, University of Birmingham, Birmingham, UK.

Part I – SCIENTIFIC PERFORMANCE AND ACTIVITIES

In this section of my *Curriculum Vitae*, I will describe my scientific outputs, and show that they are a demonstration of my scientific independence, the capacity to come up with innovative ways to address hard questions in Psychology and Cognitive Neuroscience, the impact and recognition of my research internationally, my ability to lead teams and manage major scientific projects, and, perhaps centrally, my future research paths to continue uncovering object recognition.

To do so, I will start by describing my scientific production – focusing on the 6 most representative papers. I will then discuss the impact of my research nationally and internationally, I will put forth a series of future research perspectives, I will go through my activities in coordinating and participating in scientific projects, and, finally, I will describe my scientific participation in the academic and wider community.

4. SCIENTIFIC PRODUCTION

I have published 63 full manuscripts in international journals (4 of these in a major archive - bioRxiv), most of them in highly respected disciplinary and multidisciplinary journals, including *PNAS*, *Current Biology*, *Communications Biology*, *Nature Protocols*, *Journal of Neuroscience*, *Psychological Science*, *Perspectives on Psychological Science*, *Cerebral Cortex*, or *Cortex*. I have also published a series of abstracts in major vision and cognitive neuroscience journals (*Brain Stimulation*, *Perception* and *Journal of Vision*). A complete list can be found below and at my [Google Scholar](#) page, and can be downloaded at the [Proaction](#) Lab's website (or by following the links below). Importantly, my scientific independence can be attested by the fact that I have been consistently publishing in major journals without my PhD supervisors (I published only three papers with my supervisors after my PhD), and that I have been the principal researcher (either first, last, or correspondent author; in the list below, * denotes first/last and/or the corresponding authorship) in most of my papers (around 70% of my papers). Importantly, until 2013, most of my publications were as first author. In 2013 I started the Proaction lab, and from then onwards, my publications reflect my intense activity in supervising young researchers (at all levels), as seen by the fact that many of these papers are first-authored by my supervisees. That is, I went from a researcher integrated in a team led by other senior scientists, to being an independent and senior PI leading a team of up-and-coming young researchers (Pos-Doctoral researchers, Doctoral Students, Research Assistants, etc) under several large grants that I obtained throughout the last 10 years.

Most of my research focuses on understanding how we recognize objects and on how (human) neural circuitry supports these sorts of cognitive and high-level processes. Specifically, my research addresses the neural mechanisms that subserve object processing – from how we interact with and recognize objects, to how our conceptual knowledge is organized and represented in the brain. In recent years, I have been adding a computational flavor to my research, as I have been working on computational models that allow us to infer object identity/category from object-related neural responses, as well as working with machine learning as an analytical approach to inspect neuroimaging data.

Moreover, I have also extensive work on aspects of network activity and neural processing, and specifically on how local processing in a given region is influenced by

distally processed information. That is, my work has been supporting a view that proposes that processing happening within a neural area (i.e., a functionally-defined region) locally, is defined not only by regions upstream (feedforward activation) and downstream (feedbackward activation), but also by the remaining (distal) nodes of functionally-specified networks to which the target neural regions belong to.

Finally, I am also interested in topics of neuroplasticity in special populations. I have contributed to the current understanding of cross-modal plasticity in the congenitally deaf. Particularly, I have shown that representations within auditory cortex of deaf individuals include information about location of a stimulus in the visual field. Recently, I am also showing that visual information represented in the auditory cortex of congenitally deaf individuals is rerouted from subcortical visual and auditory relays in the colliculi. Moreover, I have also focused on plasticity and aging, and on how non-invasive neuromodulation to the cerebellum can ameliorate memory function under healthy aging.

To address these issues, I use a multimodal approach in human individuals that spans functional MRI, DTI, non-invasive neuromodulation (transcranial Direct Current Stimulation and/or transcranial Magnetic Stimulation), computational models, as well as neuropsychological (i.e., the study of brain-damaged patients) and behavioral data.

4.1 Most representative papers

I selected six publications that best represent my research outputs, and that I think demonstrate my scientific independence, my capacity to lead in science and guide up-and-coming researchers, and the kinds of questions and techniques that guide my current research efforts. During my PhD, I initiated a ground-breaking line of research that questioned the long-held assumption that the dorsal visual stream is mute in what concerns object recognition. In particular, [Almeida et al., 2008 PNAS](#) was a seminal paper with strong impact on the literature on dorsal and ventral distinctions. After my PhD, I focused on shifting the way the field thought of (manipulable) object processing, emphasizing a more dynamic understanding of the neural computations at hand. Several of my subsequent papers showed that local computations are shaped by long-range connectivity with regions that share high-level object preferences. A paper I would like to highlight is:

❖ Walbrin, J. & Almeida, J. (2021). High-level representations in human occipito-temporal cortex are indexed by distal connectivity. *J Neurosci*, 41(21), 4678-4685. *This*

paper addresses one of the most important aspects I have been working on – how does the neural circuitry impact the way in which local information is processed and stored? Specifically, we show that informativeness of the computations locally within a target region (as measured by machine learning techniques) is more dependent on what other distal but connected areas are doing, than on the level of local activity. Specifically, here I show that local voxels that are more connected with remaining distal nodes of a domain-specific network show higher decoding accuracy than least connected but equally activated voxels. This paper shows my capacity bring novel and insightful research paradigms into the field, as well as my capacity to supervise and lead young and up-and-coming researchers (Walbrin was a recent graduate from Bangor University, UK). This paper has received some attention, and has led to my invited talk at the Cognitive Neuroscience Seminar (CNS) of the Department of Cognitive Neuroscience, Institute of Neuroscience and Medicine (INM-3) of the Forschungszentrum Jülich, Germany.

That local computations are not necessarily local led to the hypothesis that there are processing contingencies between different nodes of a network. One such contingency relates to how the inferior parietal lobe, whose activity indexes access to an object's manipulation, is dependent on information that is processed in ventral temporal cortex (VTC) – potentially object function. Here I highlight:

❖ **Almeida, J.**, Fintz, A., & Mahon, B. (2013). Tool manipulation knowledge is retrieved by way of the ventral visual object processing pathway. *Cortex*, 49, 2334-2344. *This is an important paper for 3 reasons: with it I started one of my first research lines as an independent researcher after my PhD; it is the first paper to address the role of Koniocellular inputs in object processing; and it shows that the segregation within low-level vision modulates neural organization of object knowledge.*

In another series of papers, I revealed an additional processing contingency – that tool representations in VTC are shaped, causally, by information processed within parietal cortex. Here, I highlight 2 papers:

❖ Lee, D., Mahon, B.Z. & **Almeida, J.** (2019). Action at a distance on object-related ventral temporal representations. *Cortex*, 117, 157-167. *This paper is another demonstration of my capacity to embark on novel high-risk but high-gain projects, and to do so with a multimodal approach. Here we used a combination of neuromodulation and fMRI, and showed that representations in areas of ventral temporal cortex are*

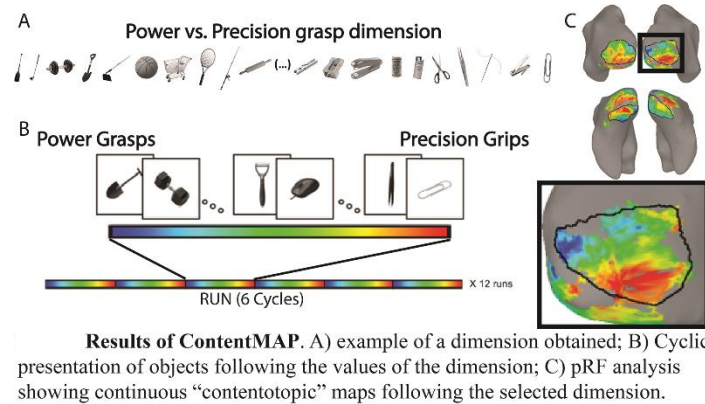
*affected by stimulation in inferior parietal cortex – two areas that are very distant from one another. These effects are, however, specific to the processing of a category of objects that is preferred by both the inferior parietal cortex and the area in ventral temporal cortex – that of manipulable objects. This is another demonstration, then, of the distal effects on local processing, and on how nodes within a domain-specific network work together to achieve an object representation. This paper has received a lot of attention from the [national press](#) and we have secured the [cover](#) of the journal *Cortex* for the issue where this paper was published. Finally, the first author of this paper – Dongha Lee – was a Post-Doctoral fellow in my lab. Thus, this paper is also a demonstration of my capacity to supervise young researchers.*

❖ Amaral, L., Donato, R., Valério, D., Caparelli-Dáquer, E., **Almeida, J.** & Bergström, F. (2022). Disentangling hand and tool processing: Distal effects of neuromodulation. *Cortex*, 157, 142-154. *In this paper (to which I am the corresponding author), we used tDCS and fMRI to explore the effects of distal connectivity on local processes. Specifically, we show that hand and tool networks can be dissociated by their connectivity profiles, and we take advantage of tDCS to separate these networks. Moreover, this paper is another demonstration of my capacity to supervise young researchers – Lénia Amaral was a PhD student in my lab. Moreover, I also trained Fredrik Bergström (a Post-Doctoral researcher in my lab) to supervise PhD students.*

Importantly, my efforts to unravel object recognition have also involved studying a number of brain-damaged individuals as a way of understanding normal object recognition. A paper I would like to highlight here is:

❖ **Almeida, J.**, Freixo, A., Tábuas-Pereira, M., Herald, S. B., Valério, D., Schu, G., Duro, D., Cunha, G., Bukhari, Q., Duchaine, B., & Santana, I. (2020). Face-Specific Perceptual Distortions Reveal A View- and Orientation-Independent Face Template. *Cur Biol*, 30(20), 4071–4077. *In this paper I tested a brain-damaged patient that reported a perceptual distortion when he saw faces – the eyes, mouth and nose were perceived as melting. Through careful psychophysical testing, we demonstrated, for the first time, that perceiving faces requires the computation of 3D face-centered representations. This paper has been featured in many national and international news outlets (e.g., [IFLScience](#)), as well as in a [dispatch](#) at *Current Biology*.*

A final defining moment in my research career is my European Research Council Starting Grant ContentMAP. Here I showed first that object-related dimensions – e.g., whether an object requires a power or a precision grip; whether an object is made of metal – explain object-specific responses in occipito-parietal and VTC, and can guide our behavior towards manipulable objects. Importantly, I am now showing that these dimensions drive topographical mapping to the same extent that stimulus location in the visual field drives retinotopic mapping in early visual cortex. I presented objects in a sequence that cycled through objects rank-ordered by their values in a target dimension (the dimension in Fig S1 relates to object grasp type). These presentation cycles were repeated many times and allowed us to look for voxel responses that could be modelled by the cyclic presentations using population receptive field (pRF) analysis. Importantly, as proposed in ContentMAP, we consistently obtain “contentotopic” maps – i.e., continuous and topographic mapping that follows object-related dimensions (figure above; the paper on these data was reviewed, and unfortunately rejected, at *Science* and we are now revising it for submission to *Nature*). A paper I would highlight here is:



location in the visual field drives retinotopic mapping in early visual cortex. I presented objects in a sequence that cycled through objects rank-ordered by their values in a target dimension (the dimension in Fig S1 relates to object grasp type). These presentation cycles were repeated many times and allowed us to look for voxel responses that could be modelled by the cyclic presentations using population receptive field (pRF) analysis. Importantly, as proposed in ContentMAP, we consistently obtain “contentotopic” maps – i.e., continuous and topographic mapping that follows object-related dimensions (figure above; the paper on these data was reviewed, and unfortunately rejected, at *Science* and we are now revising it for submission to *Nature*). A paper I would highlight here is:

❖ **Almeida, J.,** Fracasso, A., Kristensen, S., Valério, D., Bergström, F., Chakravarthi, R., Tal, Z., & Walbrin, J. (2023). Neural and behavioral signatures of the multidimensionality of manipulable object processing. *Communications Biology*, 6(1), 940. *This paper is the first in a series of papers from my ERC ContentMAP. In fact, this paper is the scaffolding onto which all the other papers will be based upon. Here we show that we can derive several key object-related dimensions that organize both mental and neural object space. We then show that people traverse these dimensions when they think about objects, and that these dimensions can explain neural responses to manipulable objects across ventral and dorsal stream regions.*

4.2 Publications (Manuscripts without a link are included in the application package).

*Almeida, J., Fracasso, A., Kristensen, S., Valério, D., Bergström, F., Chakravarthi, R., Tal, Z., & Walbrin, J. (2023). [Neural and behavioral signatures of the](#)

- [multidimensionality of manipulable object processing](#). *Communications Biology*, 6(1), 940. <https://doi.org/10.1038/s42003-023-05323-x>
- Walbrin, J., Almeida, J., & Koldewyn, K. (2023). Alternative Brain Connectivity Underscores Age-Related Differences in the Processing of Interactive Biological Motion. *The Journal of neuroscience: the official journal of the Society for Neuroscience*, 43(20), 3666–3674. <https://doi.org/10.1523/JNEUROSCI.2109-22.2023>
- *Valério, D., Hussain, A., & Almeida, J. (2023). [Semantic feature production norms for manipulable objects](#). Accepted at *Cognitive Neuropsychology*, <https://doi.org/10.1101/2023.04.24.537452>
- Herald, S. B., Almeida, J., & Duchaine, B. (2023). Face distortions in prosopometamorphopsia provide new insights into the organization of face perception. *Neuropsychologia*, 182, 108517. [10.1016/j.neuropsychologia.2023.108517](https://doi.org/10.1016/j.neuropsychologia.2023.108517)
- *Almeida, J., Martins, A. R., Amaral, L., Valério, D., Bukhari, Q., Schu, G., Nogueira, J., Spínola, M., Soleimani, G., Fernandes, F., Silva, A. R., Fregni, F., Simis, M., Simões, M., & Peres, A. (2023). [The cerebellum is causally involved in episodic memory under aging](#). *GeroScience*, 10.1007/s11357-023-00738-0. Advance online publication. <https://doi.org/10.1007/s11357-023-00738-0>
- *Almeida J. (2023). [Underfunding Basic Psychological Science Because of the Primacy of the Here and Now: A Scientific Conundrum](#). *Perspectives on psychological science: a journal of the Association for Psychological Science*, 18(2), 527–530. <https://doi.org/10.1177/17456916221105213>
- *Tal, Z., Sayal, J., Fang, F., Bi, Y., Almeida, J., & Fracasso, A. (2023). [The neural organization of visual information in the auditory cortex of the congenitally deaf](#). bioRxiv, doi: <https://doi.org/10.1101/2023.04.17.537188>
- Lee, D., Guiomar, R., Gonçalves, Ó. F., Almeida, J., & Ganho-Ávila, A. (2023). [Effects of transcranial direct current stimulation on neural activity and functional connectivity during fear extinction](#). *International journal of clinical and health psychology: IJCHP*, 23(1), 100342. <https://doi.org/10.1016/j.ijchp.2022.100342>
- *Amaral, L., Donato, R., Valério, D., Caparelli-Dáquer, E., Almeida, J., & Bergström, F. (2022). [Disentangling hand and tool processing: Distal effects of](#)

- [neuromodulation](#). *Cortex; a journal devoted to the study of the nervous system and behavior*, 157, 142–154. <https://doi.org/10.1016/j.cortex.2022.08.011>
- *Almeida J. (2022). Precedence of parvocellular- over magnocellular-biased information for 2D object-related shape processing. *Cognitive neuropsychology*, 39(1-2), 95–98. <https://doi.org/10.1080/02643294.2022.2076584>
- *Giorjiani, G.M., Tal, Z., Nili, H., Bi, Y., Fang, F., & Almeida, J. (2022). [The way of the light: how visual information reaches the auditory cortex in congenitally deaf adults](#). bioRxiv, doi: <https://doi.org/10.1101/2022.01.25.477765>
- Badia, S.B.i., Silva, P.A., Branco, D., Pinto, A., Carvalho, C., Menezes, P., Almeida, J., & Pilacinski, A. (2022). [Virtual Reality for Safe Testing and Development in Collaborative Robotics: Challenges and Perspectives](#). *Electronics*, 11, 1726. <https://doi.org/10.3390/electronics11111726>
- *Ganho-Ávila, A., Guiomar, R., Valério, D., Gonçalves, Ó. F., & Almeida, J. (2022). Offline tDCS modulates prefrontal-cortical-subcortical-cerebellar fear pathways in delayed fear extinction. *Experimental brain research*, 240(1), 221–235. <https://doi.org/10.1007/s00221-021-06248-9>
- Scaletti, S., Duarte, I., Senra, C., Almeida, J., Ferreira, A. J., Walbrin, J., & Pilacinski, A. (2022). [Optimistic Youth: Young Adults Predicted a Faster Decrease in Risk during COVID-19 Emergency State in Portugal](#). *Portuguese journal of public health*, 40(1), 43–51. <https://doi.org/10.1159/000524076>
- Ekhtiari, H., Ghobadi-Azbari, P., Thielscher, A., Antal, A., Li, L.M., Shereen, A.D., Cabral-Calderin, Y., Keeser, D., Bergmann, T.O., Jamil, A., Violante, I.R., Almeida, J. et al. (2022). [A Checklist for Assessing the Methodological Quality of Concurrent tES-fMRI Studies \(ContES Checklist\): A Consensus Study and Statement](#). *Nature Protocols*, 17, 596–617. <https://doi.org/10.1038/s41596-021-00664-5>
- *Valério, D., Almeida, J., Demeyere, N., Lima, M., Nogueira, J., & Santana, I. (2022). [The European Portuguese version of the Oxford Cognitive Screening \(OCS-Pt\): a screening test for acute stroke patients](#). *Neurological Sciences*, 43(6), 3717-3728. <https://doi.org/10.1007/s10072-022-05880-9>
- Walbrin, J. & Almeida, J. (2021). Distal functional connectivity indexes high-level representations in human occipito-temporal cortex. *Perception*, 50, 29-29.

- Branco, D., Silva, P.A., Almeida, J., Menezes, P., Badia, S.B., & Pilacinski, A. (2021). [Virtual Reality, a tool for safe testing of user experience in collaborative robotics](#). 34th British HCI Workshop and Doctoral Consortium (HCI2021-WDC). DOI: 10.14236/ewic/HCI2021-W2.4
- Schu, G., Brum, W.S., Rodrigues, Y.E., Azeredo, J.C., Pascoal, T.A., Benedet, A.L., Mathotaarachchi, S., Rosa-Neto, P., Almeida, J., & Zimmer, E. (2021). [Stable brain PET metabolic networks using a multiple sampling scheme](#). bioRxiv, doi: <https://doi.org/10.1101/2021.03.16.435674>
- Donato, R., Pavan, A., Almeida, J., Nucci, M. & Campana, G. (2021). [Temporal characteristics of global form perception in translational and circular Glass patterns](#). *Vision Research*, 187, 102–109. <https://doi.org/10.1016/j.visres.2021.06.003>
- *Valério, D., Santana, I., Aguiar de Sousa, D., Schu, G., Leal, G., Pavão Martins, I., & Almeida, J. (2021). [Knowing how to do it or doing it? A double dissociation between tool-gesture production and tool-gesture knowledge](#). *Cortex*, 449–464. <https://doi.org/10.1016/j.cortex.2021.05.008>
- *Pilacinski, A., De Haan, S., Donato, R., & Almeida, J. (2021). [Tool heads prime saccades](#). *Scientific Reports*, 11(1), 11954. <https://doi.org/10.1038/s41598-021-91254-8>.
- Kristensen, S., Fracasso, A., Dumoulin, S. O., Almeida, J., & Harvey, B. M. (2021). [Size constancy affects the perception and parietal neural representation of object size](#). *NeuroImage*, 232, 117909. Advance online publication. <https://doi.org/10.1016/j.neuroimage.2021.117909>
- *Walbrin, J. & Almeida, J. (2021). [High-level representations in human occipito-temporal cortex are indexed by distal connectivity](#). *Journal of Neuroscience*, 41(21), 4678-4685.
- *Bergström, F., Wurm, M., Valério, D. Lingnau, A., & Almeida, J. (2021). [Tool-hand invariant grasp-type affordance cross-decoded from left posterior parietal cortex](#). *Cortex*, 139, 152-165.
- *Amaral, L., Bergström, F. & Almeida, J. (2021). [Overlapping but distinct: distal connectivity dissociates hand and tool processing networks](#). *Cortex*, 140, 1-13.

- *Lee, D. & Almeida, J. (2021). [Within-category representational stability through the lens of manipulable objects](#). *Cortex*, 137, 282-291. doi: 10.1016/j.cortex.2020.12.026.
- Xu, S., Almeida, J. & Heinke, D. (2021). [The contributions of the ventral and the dorsal visual streams to the automatic processing of action relations of familiar and unfamiliar object pairs](#). *Neuroimage*, 245, 118629. <https://doi.org/10.1016/j.neuroimage.2021.118629>
- *Almeida, J., Freixo, A., Tábuas-Pereira, M., Herald, S. B., Valério, D., Schu, G., Duro, D., Cunha, G., Bukhari, Q., Duchaine, B., & Santana, I. (2020). [Face-Specific Perceptual Distortions Reveal A View- and Orientation-Independent Face Template](#). *Current biology*, S0960-9822(20)31092-7.
- Bikson, M., Hanlon, C.A., Woods, A.J., Gillick, B.T., Charvet, L., Lamm C., Madeo G., Holczer A., Almeida J., Antal A., Ay M. R., Baeken C., Blumberger D. M., Campanella S., Camprodon J., Christiansen L., Loo C., Crinion J., Fitzgerald P B., ... Ekhtiari H. (2020). [Guidelines for TMS/tES clinical services and research through the COVID-19 pandemic](#). *Brain Stimulation* 13, 1124–1149.
- Garcea, F.E., Almeida, J., Sims, M., Nunno, A., Meyers, S.P., Li, Y.M., Walter, K., Pilcher, W.H. & Mahon, B.Z. (2019). [Domain-Specific Diaschisis: Lesions to Parietal Action Areas Modulate Neural Responses to Tools in the Ventral Stream](#). *Cerebral Cortex*, 29(7), 3168-3181.
- *Lee, D., Mahon, B.Z. & Almeida, J. (2019). [Action at a distance on object-related ventral temporal representations](#). *Cortex*, 117, 157-167.
- *Ruttorf, M., Kristensen, S., Schad, L.R. & Almeida, J. (2019). [Transcranial Direct Current Stimulation Alters Functional Network Structure in Humans: A Graph Theoretical Analysis](#). *IEEE Transactions on Medical Imaging*, 38(12), 2829-2837.
- *Ganho-Ávila, A., Gonçalves, Ó.F., Guiomar, R., Boggio, P.S., Asthana, M.K., Kryptos, A.M., & Almeida, J. (2019). [The effect of cathodal tDCS on fear extinction: A cross-measures study](#). *PLoS One*, 14(9): e0221282.
- Ganho-Ávila, A., Gonçalves, Ó.F., Guiomar, R., Boggio, P.S., Asthana, M.K., Kryptos, A.M., & Almeida, J. (2019). Cathodal tDCS enhances extinction-based procedures. *L'Encéphale*, 45(2), S66.

- Ganho-Ávila, A., Guiomar, R., Valério, D., Gonçalves, Ó.F., & Almeida, J. (2019). Cathodal tDCS enhances extinction-based procedures. *L'Encéphale*, 45(2), S67.
- *Almeida, J., Nunes, G., Marques, J.F., & Amaral, L. (2018). [Compensatory plasticity in the congenitally deaf for visual tasks is restricted to the horizontal plane.](#) *Journal of Experimental Psychology: General*, 147(6), 924-932.
- *Ganho-Ávila, A., Moura-Ramos, M., Gonçalves, O., Almeida, J. (2019). [Measuring vulnerability to anxiety: Factorial structure, reliability, validity and discriminatory accuracy of the Anxiety Sensitivity Index-3-PT.](#) *Measurement and Evaluation in Counseling and Development*, 52(4), 223-238.
- *Almeida, J., Amaral, J., Garcea, F.E., Aguiar Sousa, D., Xu, S., Mahon, B.Z., & Pavão Martins, I. (2018). [Visual and visuomotor processing of hands and tools as a case study of cross talk between the dorsal and ventral streams.](#) *Cognitive Neuropsychology*, 24, 1-16.
- Nogueira, J., Freitas, S., Duro, D., Almeida, J., & Santana, I. (2018). [Validation study of the Alzheimer's disease assessment scale-cognitive subscale \(ADAS-Cog\) for the Portuguese patients with mild cognitive impairment and Alzheimer's disease.](#) *The Clinical Neuropsychologist*, 23, 1-14.
- Nogueira, J., Freitas, S., Duro, D., Tábuas-Pereira, M., Guerreiro, M., Almeida, J., & Santana, I. (2018). [Alzheimer's Disease Assessment Scale – Cognitive subscale \(ADAS-Cog\): Normative data for the Portuguese population.](#) *Acta Médica Portuguesa*, 31(2), 94-100.
- Ganho-Ávila, A., Gonçalves, Ó. F., Boggio, P. S., Asthana, M. K., Almeida, J. (2017). Combining transcranial direct current stimulation (tDCS) and classical extinction to persistently erase avoidance tendencies. *Brain Stimulation*, 10(2), 407.
- Amaral, L., Martins, A. R., Alves, J., Fernandes, F., Fregni, F., Simis, S., Almeida, J., Simões, M. R. (2017). Memory enhancement in aging - the role of cognitive training combined with tDCS: preliminary results. *Brain Stimulation*, 10(2), 411, 2017.
- *Almeida, J., Martins, A.R, Bergström, F., Amaral, L., Freixo, A., Ganho-Ávila, A., Kristensen, S., Lee, D., Nogueira, J., & Ruttorf, M. (2017). [Polarity-specific](#)

- [transcranial Direct Current Stimulation effects on object-selective neural responses in the Inferior Parietal Lobe](#). *Cortex*, 94, 176-181.
- Chen, Q., Garcea, F.E., Almeida, J., & Mahon, B.Z. (2017). [Connectivity-based constraints on category-specificity in the ventral object processing pathway](#). *Neuropsychologia*, 105, 184-196.
- *Martins, A. R., Fregni, F., Simis, M., & Almeida, J. (2017). [Neuromodulation as a cognitive enhancement in healthy aging: promises and pitfalls](#). *Aging, Neuropsychology and Cognition*, 24, 158-185.
- *Amaral, L., Ganho, A., Osório, A., He, D., Chen, Q., Mahon, B.Z., Gonçalves, O.F., Sampaio, A., Fang, F., Bi, Y. & Almeida, J. (2016). [Hemispheric asymmetries in subcortical visual and auditory relay structures in congenital deafness](#). *European Journal of Neuroscience*, 44(6), 2334-2339.
- Striem-Amit, E., Almeida, J., Belledonne, M., Chen, Q., Fang, Y., Han, Z., Caramazza, A. & Bi, Y. (2016). [Topographical functional connectivity patterns exist in the congenitally, prelingually deaf](#). *Scientific Reports*, 6, Article number: 29375.
- *Kristensen, S., Garcea, F.E., Mahon, B.Z., & Almeida, J. (2016). [Temporal frequency tuning reveals interactions between the dorsal and ventral visual streams](#). *Journal of Cognitive Neuroscience*, 28(9), 1295-1302.
- Ganho-Ávila, A., Moura-Ramos, M., Gonçalves, O. & Almeida, J. (2016). Validity of the Portuguese version of the ASI-3: Is anxiety sensitivity a unidimensional or multidimensional construct? Proceedings of the 3rd IPLeiria's International Health Congress. *BMC Health Services Research*, 16(3), 200.
- *Garcea, F.E. , Kristensen, S., Almeida, J., & Mahon, B.Z. (2016). [Resilience to the contralateral visual field bias as a window into object representations](#). *Cortex*, 81, 14-23.
- *Costa, S.L., Gonçalves, Ó., DeLuca, J., Chiaravalloti, N., Chakravarthi, R. & Almeida, J. (2016). [The temporal dynamics of visual processing in Multiple Sclerosis](#). *Applied Neuropsychology: Adult*, 23(2), 133-140.
- *Costa, S.L., Chiaravalloti, N., DeLuca, J., Gonçalves, Ó. & Almeida, J. (2016). [Neuro-ophthalmic syndromes and processing speed in Multiple Sclerosis](#). *Journal of Neuro-Ophthalmology*, 36(1), 23-28.

- Kristensen, S., Fracasso, A., Dumoulin, S., Almeida, J. & Harvey, B. (2016). An adaptable, context-dependent object size representation in human parietal cortex. *Perception*, 45(2).
- Aguiar de Sousa, D., Reimão, S., Leal, G., Almeida, J. & Pavão Martins, I. (2016). Limb Apraxia-neuropsychological and imaging study of two cases. *European Journal of Neurology*, 23(S2), 156.
- *Amaral, L., & Almeida, J. (2015). [Neuroplasticity in congenital deaf humans](#). *Revista Portuguesa de Psicologia*, 44, 39-45.
- *Almeida, J., He, D., Chen, Q., Mahon, B.Z., Zhang, F., Gonçalves, O.F., Fang, F., & Bi, Y. (2015). [Decoding visual location from neural patterns in the auditory cortex of the congenitally deaf](#). *Psychological Science*, 26(11), 1771-1782.
- Kristensen, S., Garcea, F.E., Mahon, B.Z., & Almeida, J. (2015). Subcortical influences in tool processing-the case for the magnocellular processing under high temporal frequencies. *Perception*, 44, 242-242.
- Aguiar de Sousa, D., Reimão, S., Leal, G., Almeida, J. & Pavão Martins, I. (2014). Apraxia dos membros: Estudo neuropsicológico e imagiológico de dois casos. *Sinapse*, 14(1), 104-105.
- Sousa, S.C., Almeida, J., Cavaleiro Miranda, P., Salvador, R., Silvestre, J., Simões, H., & Crespo, P. (2014). [Optimization of multiple coils immersed in a conducting liquid for half-hemisphere or whole-brain deep transcranial magnetic stimulation: a simulation study](#). *Conf Proc IEEE Eng Med Biol Soc.*, 2014, 538-541. doi: 10.1109/EMBC.2014.6943647.
- *Almeida, J., Mahon, B., Zapater-Rabero, V., Dziuba, A., Cabaço, T., Marques, J.F., & Caramazza, A. (2014). [Grasping with the eyes: the role of elongation in visual recognition of manipulable objects](#). *Cognitive, Affective and Behavioral Neuroscience*, 14(1), 319-335.
- *Almeida, J., Fintz, A., & Mahon, B. (2013). [Tool manipulation knowledge is retrieved by way of the ventral visual object processing pathway](#). *Cortex*, 49(9), 2334-2344.
- Almeida, J., Fintz, A., & Mahon, B. (2013). Tool manipulation knowledge is retrieved by way of the ventral visual object processing pathway. *Perception* 42 (S), 240.

- *Mahon, B., Kumar, N., & Almeida, J. (2013). [Spatial frequency tuning reveals visuomotor interactions between the dorsal and ventral visual systems](#). *Journal of Cognitive Neuroscience*, 25(6), 862-871.
- *Almeida, J., Pajtas, P., Mahon, B., Nakayama, K., & Caramazza, A. (2013). [Affect of the unconscious: visually suppressed angry faces modulate our decisions](#). *Cognitive, Affective and Behavioral Neuroscience*, 13, 94–101.
- *Marques, J.F., Raposo, A., & Almeida, J. (2013). [Structural processing and category-specific deficits](#). *Cortex*, 49, 266-275.
- Garcea, F., Almeida, J., & Mahon, B. (2012). [A right visual field advantage for visual processing of manipulable objects](#). *Cognitive, Affective, & Behavioral Neuroscience*, 12(4), 813-825.
- Almeida, J., Pajtas, P., Mahon, B., Nakayama, K., & Caramazza, A. (2010). Turning neutral to negative: subcortically processed angry faces influence valence decisions. *Journal of Vision*, 10(7), 694, <http://www.journalofvision.org/content/10/7/694.abstract>, doi: 10.1167/10.7.694.
- *Almeida, J., Mahon, B.Z., and Caramazza, A. (2010). [The role of the dorsal visual processing stream in tool identification](#). *Psychological Science*, 21(6), 772-778.
- *Almeida, J., Mahon, B.Z., Nakayama, K., and Caramazza, A. (2008). [Unconscious processing dissociates along categorical lines](#). *Proceedings of the National Academy of Science USA* 105(39), 15214 – 15218.
- Almeida, J., Mahon, B., Nakayama, K., & Caramazza, A. (2008). Categorical priming: using continuous flash suppression in an object categorization task. *Journal of Vision*, 8(6), 840, 840a, <http://journalofvision.org/8/6/840/>, doi:10.1167/8.6.840.
- *Almeida, J., Knobel, M., Finkbeiner, M., & Caramazza, A. (2007). [The locus of the frequency effect: when recognizing is not enough](#). *Psychonomic Bulletin and Review*, 14(6), 1177-1182.
- *Almeida, J. (2007). [The semantic/episodic distinction: the case for social information processing](#). *Journal of Experimental Social Psychology*, 43, 842-849.

- Almeida, J., Mahon, B., & Caramazza, A. (2007). Motor facilitation under binocular rivalry: the effect of suppressed motor affordances. *Journal of Vision*, 7(9), 430, 430a, <http://journalofvision.org/7/9/430/>, doi:10.1167/7.9.430.
- Finkbeiner, M., Almeida, J. & Caramazza, A. (2006). [Letter identification processes in reading: Distractor interference reveals an automatically engaged, domain-specific mechanism](#). *Cognitive Neuropsychology*, 23(8), 1083-1103.
- Finkbeiner, M., Almeida, J., Janssen, N., & Caramazza, A. (2006). [Lexical selection in bilingual speech production does not involve language suppression](#). *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 32(5), 1075 - 1089.

4.3 Oral presentations at conferences

- Kristensen, S., Tal, Z., Fracasso, A., & Almeida, J. (2023). *Contentotopic mapping: topographic organization of object manipulation information*. Oral presentation at the 23rd Conference of the European Society for Cognitive Psychology, Porto, Portugal.
- Almeida, J. (2023). *Neural and behavioral signatures of the multidimensionality of object processing*. Oral presentation at the 23rd Conference of the European Society for Cognitive Psychology, Porto, Portugal.
- Tal, Z., Sayal, J., Fang, F., Bi, Y., Almeida, J., & Fracasso, A. (2023). *The neural organization of visual information in the auditory cortex of the congenitally deaf*. Oral presentation at the 23rd Conference of the European Society for Cognitive Psychology, Porto, Portugal.
- Walbrin, J., Almeida, J. & Koldewyn, K. (2023). *Age-related differences in the processing of interactive biological motion is underscored by alternative brain connectivity*. Oral presentation at the 23rd Conference of the European Society for Cognitive Psychology, Porto, Portugal.
- Sotero, D. F., Valério, D., Miranda, F., Pavão Martins, I., Alves, P., & Almeida, J. (2023). *Dissociations of object material from object shape, size, color, and weight*. Oral presentation at the Seeing and Acting Working: Functional and Neural Perspectives (SAW) – Abstract award winner. Coimbra, Portugal.

- Caglar, L.R., Walbrin, J., Almeida, J., & Mahon, B.Z. (2023). *Object-directed actions are componentially built in parietal cortex*. Oral presentation at the Seeing and Acting Working: Functional and Neural Perspectives (SAW) – Abstract award winner. Coimbra, Portugal.
- Valério, D., Peres, A., & Almeida, J. (2023). *Neural and Behavioral disentanglement of visual aspect, manner of use and function of manipulable objects*. Oral presentation at the Concepts, Actions and Objects Workshop – CAOs – Abstract award winner. Rovereto, Italy.
- Almeida, J. (2023). *The cerebellum is causally involved in episodic memory under aging*. Oral presentation at the IV CINEICC International Congress: Innovations in fundamental and applied psychological science. Coimbra, Portugal.
- Sotero, F.D., Valério, D., Miranda, F., Pavão Martins, I., Alves, P. & Almeida, J. (2023). *Case study: The dissociation of material from shape, size, color, and weight*. Oral presentation at the IV CINEICC International Congress: Innovations in fundamental and applied psychological science. Coimbra, Portugal.
- Kristensen, S., Tal, Z., Fracasso, A., & Almeida, J. (2023). *Contentotopic mapping: topographic organization of object manipulation information*. Oral presentation at the IV CINEICC International Congress: Innovations in fundamental and applied psychological science. Coimbra, Portugal.
- Valério, D., Peres, A., Bergström, F., Seidel, P. & Almeida, J. (2023). *The influence of semantic similarity on object recognition*. Oral presentation at the IV CINEICC International Congress: Innovations in fundamental and applied psychological science. Coimbra, Portugal.
- Walbrin, J., Downing, P.E., Sotero, F.D., & Almeida, J. (2023). *Characterizing the discriminability of visual categorical information in strongly connected voxels*. Oral presentation at the IV CINEICC International Congress: Innovations in fundamental and applied psychological science. Coimbra, Portugal.
- Almeida, J. (2023). *Neural and behavioral signatures of the multidimensionality of object processing*. Oral presentation at the IV CINEICC International Congress: Innovations in fundamental and applied psychological science. Coimbra, Portugal.
- Vaz., I., Almeida, J., Silva, A.R., & Peres, A. (2023). *Alzheimer's disease classification using Deep Learning on 2D MRI images*. Oral presentation at the IV

CINEICC International Congress: Innovations in fundamental and applied psychological science. Coimbra, Portugal.

Baião, M., Amaral, L., Almeida, J., & Besson, G. (2023). *Tools under the electroencephaloscope: towards a unified picture of the neural time course of visual tool processing*. Oral presentation at the IV CINEICC International Congress: Innovations in fundamental and applied psychological science. Coimbra, Portugal.

Amaral, L., Donato, R., Valério, D., Caparelli-Dáquer, E., Almeida, J., & Bergström, F. (2022). *Using neuromodulation to dissociate overlapping networks*. Oral presentation at the XVI Meeting of the Portuguese Experimental Psychology Association – APPE (APPE/SEPEX meeting). Faro, Portugal.

Valério, D., & Almeida, J. (2022). *The contribution of features to recognize manipulable objects*. Oral presentation at the XVI Meeting of the Portuguese Experimental Psychology Association – APPE (APPE/SEPEX meeting). Faro, Portugal.

Amaral, L., Bergström, F. & Almeida, J. (2021). *What connects hands and tools? - relating category preferences to functional connectivity preferences*. Oral presentation at the XV Meeting of the Portuguese Experimental Psychology Association – APPE (online conference).

Walbrin, J. & Almeida, J. (2021). *High-level representations in human occipito-temporal cortex are indexed by distal connectivity*. Oral presentation at the XV Meeting of the Portuguese Experimental Psychology Association – APPE (online conference).

Valério, D., & Almeida, J. (2021). *Is feature similarity between objects traced back to their semantic representations?* Oral presentation at the XV Meeting of the Portuguese Experimental Psychology Association – APPE (online conference).

Walbrin, J. & Almeida, J. (2021). *Distal functional connectivity indexes high-level representations in human occipito-temporal cortex*. Oral presentation at the 43rd European Conference on Visual Perception (online conference).

Almeida, J. (2020). *Action at a distance: does the dorsal stream influence ventral temporal representations?* Oral presentation at 39th European Workshop on Cognitive Neuropsychology, Bressanone, Italy.

- Almeida, J. (2019). *Action at a distance on object-representations: distal effects of tDCS*. Oral presentation at the III International Network of tES-fMRI webinar. Online.
- Valério, D., Aguiar de Sousa, D., Leal, G., Pavão Martins, I., & Almeida, J. (2018). *Double dissociation between acting on and knowing how to act on tools*. Oral presentation at the XIII Meeting of the Portuguese Experimental Psychology Association – APPE. Braga, Portugal.
- Martins, A. R., Amaral, L., Nogueira, J., Alves, J., Fernandes, F., Fregni, F., Simis, M., Almeida, J., Simões, M. R. (2017). *Memory enhancement in aging - the role of cognitive training combined with tDCS: preliminary results*. Oral presentation at the XII Meeting of the Portuguese Experimental Psychology Association – APPE. Porto, Portugal.
- Amaral, L., Martins, A. R., Nogueira, J., Spínola, M., Alves, J., Fernandes, F., Fregni, F., Simis, M., Almeida, J., Simões, M. R. (2017). *Memory enhancement in aging - the role of cognitive training combined with tDCS: preliminary neuroimaging results*. Oral presentation at the XII Meeting of the Portuguese Experimental Psychology Association – APPE. Porto, Portugal.
- Freixo, A., M. Tábuas-Pereira, Bukhari, Q., Kristensen, S., Duro, D., Santana, I., Almeida, J. (2017). *Domain-specific functional organization: neurocognitive characterization of a case of hemiprosopometamorphopsia*. Oral presentation at the XII Meeting of the Portuguese Experimental Psychology Association – APPE. Porto, Portugal.
- Freixo, A., Pereira, M., Nogueira, J., Duro, D., Almeida, J., & Santana, I. (2016). *Organização Funcional por Domínios Específicos: Caracterização Comportamental de um Caso de Hemiprosopometamorfopsia*. Oral presentation at the 30th Meeting of the Grupo de Estudos de Envelhecimento Cerebral, Lisbon, Portugal.
- Nogueira, J., Afonso, A., Freixo, A., Duro, D., Guerreiro, M., Almeida, J., Freitas, S., & Santana, I. (2016). *Validação Clínica da Escala de Avaliação da Doença de Alzheimer - Subescala Cognitiva (ADAS-Cog) para a população portuguesa*. Oral presentation at the 30th Meeting of the Grupo de Estudos de Envelhecimento Cerebral, Lisbon, Portugal.
- Martins, A.R., & Almeida, J. (2016). *Estimulação cerebral não-invasiva na doença de Alzheimer e outras Perturbações Neurológicas*. Oral presentation the seminar

Terapias Não-Farmacológicas na Doença de Alzheimer e outras Perturbações Neurológicas: Evidência Presente e Futuro, Braga, Portugal.

Amaral, A., & Almeida, J. (2016). *Estimulação Transcraniana por Corrente Contínua no Défice Cognitivo Ligeiro – protocolo para um ensaio clínico*. Oral presentation at the seminar *Terapias Não-Farmacológicas na Doença de Alzheimer e outras Perturbações Neurológicas: Evidência Presente e Futuro*, Braga, Portugal.

Ganho-Ávila, A., Moura-Ramos, M., Gonçalves, Ó., & Almeida, J. (2016). *Validity of the Portuguese version of the ASI-3: Is anxiety sensitivity a unidimensional or multidimensional construct?* Oral presentation at the 3rd IPEiria's International Health Congress, Leiria, Portugal.

Amaral, L., Ávila-Ganho, A., Gonçalves, Ó., & Almeida, J. (2015). *Volumetric analysis of cortical and subcortical regions in congenital deafness*. Oral presentation at the X Meeting of the Portuguese Experimental Psychology Association – APPE, Faro, Portugal.

Almeida, J., Mahon, B., Garcea, F., & Kristensen, S. (2015). *Subcortical influences in tools processing: the case for the magnocellular processing under high temporal frequencies*. Oral presentation at the X Meeting of the Portuguese Experimental Psychology Association – APPE, Faro, Portugal.

Ganho-Ávila, A., Valério, D., Gonçalves, O., & Almeida, J. (2015). *Interfering with fear memory circuit*. Oral presentation at the 3rd International Congress of The Cognitive and Behavioural Centre for Research and Intervention - CINEICC/III Portuguese Association for Behavioural Therapy (APTC), Coimbra, Portugal.

Martins, A.R., Fregni, F., Simis, M., & Almeida, J. (2015). *Neuromodulation as a cognitive enhancement strategy in healthy older adults: promises and pitfalls*. Oral presentation at the 3rd International Congress of The Cognitive and Behavioural Centre for Research and Intervention - CINEICC/III Portuguese Association for Behavioural Therapy (APTC), Coimbra, Portugal.

Almeida, J., Fintzi, A., & Mahon, B. (2013). *Tool Manipulation Knowledge is Retrieved by way of the Ventral Visual Object Processing Pathway*. Oral presentation at the 36th ECVF (European Conference on Visual Perception), Bremen, Alemanha.

- Almeida, J., He, D., Chen, Q., Mahon, B.Z., Gonçalves, O., Fang, F., & Bi, Y. (2013). *Reorganização neuroplástica do córtex auditivo primário em indivíduos surdos Congénitos*. Oral presentation at the VIII Simpósio Nacional Investigação em Psicologia (Portuguese Psychological Association's National symposium), Aveiro, Portugal.
- Almeida, J., He, D., Chen, Q., Mahon, B.Z., Gonçalves, O., Fang, F., & Bi, Y. (2013). *Organização retinotópica simples no córtex auditivo primário (A1) de surdos congénitos*. Oral presentation at the VIII Meeting of the Portuguese Experimental Psychology Association – APPE, Aveiro, Portugal.
- Almeida, J., Fintzi, A., & Mahon, B. (2013). *Informação sobre manipulação de objectos é processada pela via visual ventral*. Oral presentation at the VIII Meeting of the Portuguese Experimental Psychology Association – APPE, Aveiro, Portugal.
- Almeida, J., Kumar, N., & Mahon, B. (2012). *Low-level influences on high-level processing*. Oral presentation at the VII Meeting of the Portuguese Experimental Psychology Association – APPE. Lisbon, Portugal.
- Almeida, J., Pajtas, P., Mahon, B., Nakayama, K., & Caramazza, A. (2010). *Turning neutral to negative: subcortically processed angry faces influence valence decisions*. Oral presentation at the 10th Vision Sciences Society meeting. Naples, FL, EUA.
- Almeida, J., Pajtas, P., Mahon, B., Zapater, V., Nakayama, K., & Caramazza, A. (2010). *Do neutro para o negativo: a influência da informação subcortical em decisões de carácter emocional*. Oral presentation at the VII Simpósio Nacional Investigação em Psicologia (Portuguese Psychological Association's National symposium). Braga, Portugal.
- Almeida, J., Mahon, B., and Caramazza, A. (2010). *Informação proveniente da via visual dorsal influencia o reconhecimento e identificação de objectos manipuláveis*. Oral presentation at the VII Simpósio Nacional Investigação em Psicologia (Portuguese Psychological Association's National symposium). Braga, Portugal.
- Almeida, J., Mahon, B.Z., Pajtas, P.E., Nakayama, K., & Caramazza, A. (2008). *Category-Specific Priming for Binocularly Suppressed Images*. Oral presentation at the Concepts, Actions and Objects Workshop – CAOs – Abstract award winner. Rovereto, Italy.

- Almeida, J., Mahon, B.Z., Nakayama, K., & Caramazza, A. (2008). *Categorical priming: using continuous flash suppression in an object categorization task*. Oral presentation at the 8th Vision Sciences Society meeting. Naples, FL, EUA.
- Garcia-Marques, L., Jerónimo, R., Almeida, J., & Veríssimo, J. (2003). *A implicação do BAS e FAS nos componentes associativo e monitor no paradigma DRM (The implications of BAS and FAS on the associative and monitor components of the DRM paradigm)*. Oral presentation at the V Simpósio Nacional Investigação em Psicologia (Portuguese Psychological Association's National symposium). Lisboa, Portugal.
- Palma-Oliveira, J., Almeida, J., & Borges, G. (September, 2003). *Prognósticos só no fim do jogo...se ao menos soubéssemos quem joga. (Prognostics? Only when the game is over ... if we at least knew who is playing)*. Oral presentation at the V Simpósio Nacional Investigação em Psicologia (Portuguese Psychological Association's National symposium). Lisboa, Portugal.

4.3 Poster presentations at conferences

- Kristensen, S., Tal, Z., Fracasso, A., & Almeida, J. (2023). *Contentotopic mapping: topographic organization of object manipulation information*. Poster presented at the Seeing and Acting Working: Functional and Neural Perspectives (SAW). Coimbra, Portugal.
- Sotero, D. F., Valério, D., Miranda, F., Pavão Martins, I., Alves, P., & Almeida, J. (2023). *Dissociations of object material from object shape, size, color, and weight*. Poster presented at the Seeing and Acting Working: Functional and Neural Perspectives (SAW). Coimbra, Portugal.
- Tal, Z., Fracasso, A., Kristensen, S., Valério, D., Bergström, F., Chakravarthi, R., & Almeida, J. (2023). *Neural and Behavioral signatures of the multidimensionality of manipulable object processing*. Poster presented at the Seeing and Acting Working: Functional and Neural Perspectives (SAW). Coimbra, Portugal.
- Kristensen, S., Tal, Z., Fracasso, A., & Almeida, J. (2023). *Contentotopic mapping: topographic organization of object manipulation information*. Poster

presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.

Tal, Z., Fracasso, A., Kristensen, S., Valério, D., Bergström, F., Chakravarthi, R., & Almeida, J. (2023). *Neural and Behavioral signatures of the multidimensionality of manipulable object processing*. Poster presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.

Walbrin, J., Almeida, J., Koldewyn, K., (2023). *Age-related differences in the processing of interactive biological motion is underscored by alternative brain connectivity*. Poster presented at the 23rd Conference of the European Society for Cognitive Psychology, Porto, Portugal.

Peres, A., Valério, D., Ponce, F., Vaz, I., Madhani, M., Walbrin, J., & Almeida, J. (2023). *fMROI: a user-friendly and open-source software for ROI creation and neuroimage visualization*. Poster presented at the Seeing and Acting Working: Functional and Neural Perspectives (SAW). Coimbra, Portugal.

Caglar, L.R., Walbrin, J., Almeida, J., & Mahon, B.Z. (2023). *Object-directed actions are componentially built in parietal cortex*. Poster presented at the Seeing and Acting Working: Functional and Neural Perspectives (SAW). Coimbra, Portugal.

Valério, D., Peres, A., & Almeida, J. (2023). *Unpacking Visual, Manipulation, and Function knowledge at behavioral and neural levels*. Poster presented at the Seeing and Acting Working: Functional and Neural Perspectives (SAW). Coimbra, Portugal.

Peres, A., Valério, D., Bergström, F., Seidel, P., & Almeida, J. (2023). *Object similarity shapes neural and cognitive representations*. Poster presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.

Valério, D., Peres, A., & Almeida, J. (2023). *Neural and Behavioral disentanglement of visual aspect, manner of use and function of manipulable objects*. Poster presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.

Baião, M., Walbrin, J., Almeida, J., & Besson, G. (2023). *Spatiotemporal neural dynamics of motor manipulation, function, and visual properties in visual tool processing*. Poster presented at the IV CINEICC International Congress: Innovations in fundamental and applied psychological science. Coimbra, Portugal.

- Baião, M., Amaral, L., Almeida, J., & Besson, G. (2023). *Tools under the electroencephaloscope: Towards a unified picture of the neural time course of visual tool processing*. Poster presented at the 23rd Conference of the European Society for Cognitive Psychology, Porto, Portugal.
- Besson, G., Baião, M., Walbrin, J., & Almeida, J. (2023). *The temporal dynamics of tool-related representations: an RSA study on EEG data*. Poster presented at the 23rd Conference of the European Society for Cognitive Psychology, Porto, Portugal.
- Melo, M., Almeida, J., & Besson, G. (2023). *The speed of visuo-semantic feature extraction: visually-based vs. knowledge-based features*. Poster presented at the Seeing and Acting Working: Functional and Neural Perspectives (SAW). Coimbra, Portugal.
- Sossounov, N., Melo, M., Hussain, A., & Almeida, J., & Yildirim, I. (2023). *Object-related dimensions as predictors of object representations*. Poster presented at the Seeing and Acting Working: Functional and Neural Perspectives (SAW). Coimbra, Portugal.
- Walbrin, J., Sossounov, N., Mahdiani, M., Vaz, I., & Almeida, J. (2023). *Fine-grained human object knowledge is well-captured by multimodal deep learning*. Poster presented at the Seeing and Acting Working: Functional and Neural Perspectives (SAW). Coimbra, Portugal.
- Yildirim, I., Sossounov, N., Hussain, A., Melo, M., & Almeida, J. (2023). *Does the brain distinguish similarity on the function, the motor program, and the look of manipulable objects?* Poster presented at the Seeing and Acting Working: Functional and Neural Perspectives (SAW). Coimbra, Portugal.
- Yildirim, I., Melo, M., Hussain, A., Sossounov, N., & Almeida, J. (2023). *Object-related dimensions as predictors of object representations*. Poster presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.
- Caglar, L.R., Almeida, J., & Mahon, B.Z. (2022). *Beyond representational similarity: Towards a componential model of object-directed actions*. Poster presented at the Cognitive Neuroscience Society Annual Meeting (CNS). San Francisco, California, USA.
- Giorjiani, G., Valério, D., Walbrin, J., & Almeida, J. (2021). *Deep Neural Networks and Behavioural Models Contributions to Tools Recognition: Exploring a Proof-of-Principle Model*. Poster presented at the XV Meeting of the Portuguese

- Experimental Psychology Association – APPE, Lisbon, Portugal. (Online Conference).
- Schu, G., Ferreira, S., de Haan, S., Amaral, L., Martins, A.R., Simões, M., Almeida, J., & Peres, A. (2021). *MoCA uncovers changes in white matter microstructure*. Poster presented at the XV Meeting of the Portuguese Experimental Psychology Association – APPE (online conference).
- Tal, Z. & Almeida, J. (2021). *Visual tasks modulate functional connectivity patterns of the auditory cortex in the deaf*. Poster presented at the XV Meeting of the Portuguese Experimental Psychology Association – APPE (online conference).
- Kristensen, S., Fracasso, A., Tal, Z., & Almeida, J. (2021). *Mapping the dimensions of object knowledge*. Poster presented at the XV Meeting of the Portuguese Experimental Psychology Association – APPE (online conference).
- Giorjiani, G.M., Valério, D., Walbrin, J. & Almeida, J. (2021). *Contributions of deep neural networks and behavioural models to tools recognition: Exploring a proof-of-principle model*. Poster presented at the XV Meeting of the Portuguese Experimental Psychology Association – APPE (online conference).
- Ferreira, S., Schu, G., de Haan, S., Amaral, L., Martins, A.R., Simões, M., Almeida, J., & Peres, A. (2021). *Neural mechanisms underlying processing speed in healthy older adults*. Poster presented at the XV Meeting of the Portuguese Experimental Psychology Association – APPE (online conference).
- Almeida, J., Mahon, B.Z. & Lee, D. (2019). *Using neuromodulation to distally affect ventral temporal representations*. Poster presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.
- Amaral, J., Garcea, F.E., Aguiar de Sousa, D., Xu, S., Mahon, B.Z. & Almeida, J. (2018). *Interactions between dorsal and ventral stream in visuomotor processing*. Poster presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.
- Martins, A.R., Bergström, F., Amaral, L., Freixo, A., Ganho-Ávila, A., Kristensen, S., Lee, D., Nogueira, J., Ruttorf, M. & Almeida, J., (2018). *Transcranial Direct Current Stimulation effects on object-selective neural responses in the Inferior Parietal Lobe*. Poster presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.

- Valério, D., Aguiar de Sousa, D., Leal, G., Pavão Martins, I., & Almeida, J. (2018). *Double dissociation between acting on and knowing how to act on tools*. Poster presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.
- Almeida, J., Táboa-Pereira, M., Freixo, A., Duro, D., Bukhari, Q. & Santana, I. (2018). *Effects of neural disconnection on face perception: the man who saw the right-side of your face distorted*. Poster presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.
- Amaral, L., Martins, A.R., Alves, J., Fernandes, F., Fregni, F. Simis, M., Simões, M.R. & Almeida, J. (2018). *Memory and aging: a behavioral and neurocognitive study of tDCS and cognitive training*. Poster presented at the XIII Meeting of the Portuguese Experimental Psychology Association – APPE, Braga, Portugal.
- Almeida, J., Martins, A.R., Bergström, F., Amaral, L., Freixo, A., Ganho-Ávila, A., Kristensen, S., Lee, D., Nogueira, J. & Ruttorf, M. (2018). *Transcranial Direct Current Stimulation effects on object-selective neural responses in the Inferior Parietal Lobe*. Poster presented at the XIII Meeting of the Portuguese Experimental Psychology Association – APPE, Braga, Portugal.
- Ganho-Ávila, A. Gonçalves Ó.F., Boggio, P.S., Asthana, M.K. & Almeida, J. (2017). *Combining transcranial direct current stimulation (tDCS) and classical extinction to persistently erase avoidance tendencies*. Poster presented at the 2nd International Conference on Brain Stimulation, Barcelona, Espanha.
- Amaral, L., Martins, A.R., Alves, J., Fernandes, F., Fregni, F. Simis, M., Almeida, J. & Simões, M.R. (2017). *Memory enhancement in aging - the role of cognitive training combined with tDCS: preliminary results*. Poster presented at the 2nd International Conference on Brain Stimulation, Barcelona, Espanha.
- Kristensen, S., Fracasso, A., Dumoulin, S., Almeida, J. & Harvey, B. (2016). *An adaptable, context-dependent object size representation in human parietal cortex*. Poster presented at the 39th ECVF (European Conference on Visual Perception), Barcelona, Espanha.
- Almeida, J., Nogueira, J. & Freixo, A. (2016). *Modulating the role of magnocellular input on object recognition with the use of tDCS*. Poster presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.
- Ganho-Ávila, A., Valério, D., Gonçalves, Ó., & Almeida, J. (2015). *The fronto-amygdalar circuit during fear responses*. Poster presented at the X Meeting

of the Portuguese Experimental Psychology Association – APPE, Faro, Portugal.

Ganho-Ávila, A., Margalhos, P., Brunoni, A., Martins, A. R., Pocinho, F., & Almeida, J. (2015). *Fear Memory. A neuromodulation study in anxiety disorders*. Poster presented at the 1st European meeting for noninvasive brain stimulation techniques (NIBS) for psychiatric disorders, Gent, Bélgica.

Martins, A.R., & Almeida, J. (2015). *Neuromodulation in healthy aging: promises and pitfalls*. Poster presented at the X Meeting of the Portuguese Experimental Psychology Association – APPE, Faro, Portugal.

Almeida, J., Nogueira, J., & Freixo, A. (2015). *Modulating the role of magnocellular input on object recognition with the use of tDCS*. Poster presented at the X Meeting of the Portuguese Experimental Psychology Association – APPE, Faro, Portugal.

Almeida, J., He, D., Chen, Q., Mahon, B.Z., Zhang, F., Gonçalves, O.F., Fang, F., & Bi, Y. (2014). *Visual representations in the auditory cortex of the congenitally deaf*. Poster presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.

Almeida, J., Nogueira, J., & Freixo, A. (2014). *Influência da via magnocelular no processamento de ferramentas*. Poster presented at the IX Meeting of the Portuguese Experimental Psychology Association – APPE, Covilhã, Portugal.

Amaral, L., & Almeida, J. (2014). *Hands priming tools priming hands - a behavioral analysis of a neural overlap*. Poster presented at the IX Meeting of the Portuguese Experimental Psychology Association – APPE, Covilhã, Portugal.

Almeida, J., Fintzi, A., & Mahon, B.Z. (2013). *Tool Manipulation Knowledge is Retrieved by way of the Ventral Visual Object Processing Pathway*. Poster presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.

Almeida, J., He, D., Quanjing, C., Mahon, B., Gonçalves, O., Fang, F., & Bi, Y., (2012). *Colonization of A1 by retinotopically organized visual information in the congenitally deaf*. Poster presented at the 2nd Symposium Champalimaud Neuroscience Programme. Lisbon, Portugal.

- Amaral, L., Sequeira, J., & Almeida, J. (2012). *Object recognition and manipulation – hand/tool and tool/hand interactions in manipulable object processing*. Poster presented at the VII Meeting of the Portuguese Experimental Psychology Association – APPE, Lisbon, Portugal.
- Dziuba, A., Cabaço, T., Marques, J.F., & Almeida, J. (2012). *Visuomotor processing and manipulable object recognition*. Poster presented at the VII Meeting of the Portuguese Experimental Psychology Association – APPE, Lisbon, Portugal.
- Almeida, J., Kumar, N., & Mahon, B. (2011). *Spatial frequency tuning reveals visuomotor interactions between the dorsal and ventral visual systems*. Poster presented at the 1st Symposium Champalimaud Neuroscience Programme. Lisboa, Portugal.
- Almeida, J., Mahon, B.Z., Pajtas, P.E., Nakayama, K., & Caramazza, A. (2010). *Emotions of the unconscious: how unconsciously presented angry faces affect our decisions*. Poster presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.
- Almeida, J., Mahon, B.Z., Pajtas, P.E., Nakayama, K., & Caramazza, A. (2008). *Category-Specific Priming for Binocularly Suppressed Images*. Poster presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.
- Almeida, J., Mahon, B., Nakayama, K., & Caramazza, A. (2007). *Motor effects under binocular rivalry: kinematic analysis of object affordances*. Poster presented at the Concepts, Actions and Objects Workshop – CAOs. Rovereto, Italy.
- Almeida, J., Mahon, B. & Caramazza, A. (2007). *Motor facilitation under binocular rivalry: the effect of suppressed motor affordances*. Poster presented at the 7th Vision Sciences Society Meeting. Sarasota, FL, EUA.

5. NATIONAL AND INTERNATIONAL IMPACT AND RECOGNITION OF SCIENTIFIC PRODUCTION

In part, what I described in the previous section – papers published in major journals within the field, oral presentations and posters in important meetings nationally and internationally – is already a demonstration that the work I have been developing has been received in an extremely positive way nationally and internationally, and has had a considerable impact on the field of Psychology and Cognitive Neuroscience at a national and international level. Below I will describe other clear examples of this.

One such clear example of the impact and recognition of my scientific production comes from the fact that this work has led to the attribution of national and international scientific awards. For instance, the "APPE Researcher" award from the Portuguese Association of Experimental Psychology (2013), the "APP Young Researcher" award from the Portuguese Psychology Association (2014), or the "Elsevier/Vision Research" award from the *Vision Science Society* (2010), among others. Another important aspect, and partly parallel to the awards I have received, is the fact that the work of some of the young up-and-coming researchers that I have supervised in my laboratory has led to conferral of scientific awards to these young researchers. For example, one of the first articles published with my first PhD student (Dr. Silvana Lopes Costa, currently a Researcher at the *Kessler Institute*, New Jersey, USA) was awarded the *J Lawton Smith, MD* award for her outstanding contribution to the *Journal of Neuro-Ophthalmology* in 2016. Another example relates to the work of Fredrik Bergström, a Postdoctoral Researcher in my laboratory, that led to the "APPE Researcher" award from the Portuguese Association of Experimental Psychology. Recently, Daniela Valério and Filipa Sotero (Doctoral students in my lab), and Leyla Caglar (a Post-Doctoral researcher in my lab) received awards for their outstanding posters in international conferences (CAOs and SAW workshops). This is an extremely important aspect for me as the director of the *Proaction Laboratory* – I aim to provide exceptional scientific conditions to the researchers in my laboratory, thus contributing decisively to their own national and international impact.

Another aspect that demonstrates my scientific impact is related to the various invitations I have received to be a speaker at national and international conferences, *workshops* or seminars. These invitations include lectures at the University of Justus Liebig University of Giessen, the University of Lille, Jülich University, Bangor University, Utrecht

University, University of Rochester, *Kessler Institute*, Beijing Normal University, Pompeu Fabra University, University of Valencia, Catholic University of Louvain, University of Granada, Champalimaud *Center for the Unknown*, among others.

There are also other elements of my *Curriculum Vitae* that demonstrate the impact and national and international recognition of my scientific production, which will be addressed in more detail in other parts of my *Curriculum Vitae*. This include, for instance, my ability to obtain major funding, or the fact that I have been consistently invited to assess research projects as a panel member in international science foundations.

5.1 Awards

- 2019 *European Research Council* Starting Grant - 1,8 million euro.
- 2016 *J Lawton Smith, MD* Award for the paper Costa, S.L., Chiaravalloti, N., DeLuca, J., Gonçalves, Ó. & Almeida, J. (2016). Neuro-ophthalmic syndromes and processing speed in Multiple Sclerosis. *Journal of Neuro-Ophthalmology*, 36(1), 23-28. Award given to the outstanding contribution of the paper for the field of Neuro-ophthalmology.
- 2014 *Prémio Investigador APPE* (APPE Researcher Award) given by the Portuguese Experimental Psychology Association (APPE).
- 2013 *Prémio Jovem Investigador APP* (Young Investigator Award) given by the Portuguese Psychology Association (APP).
- 2011-2013 Marie Curie Fellowship – *Welcome II Portugal* – Foundation for Science and Technology, Portugal and *Marie Curie* (128k euro).
- 2010 *Graduate Society Dissertation Completion Fellowship* given by Harvard University.
- 2010 *Elsevier/Vision Research Award* given at the 10th Annual meeting of the Vision Sciences Society.
- 2008 *Presenters Award*. CAOS — Rovereto Workshop on Concepts, Actions, and Objects: Functional and Neural Perspectives. Rovereto, Italy.

5.2 Invited talks

Almeida, J. (2023). *Contentopic mapping and object dimensionality - a novel understanding on the organization of object knowledge*. Invited speaker at the colloquium “Current topics in perception and cognition”. The Justus Liebig University of Giessen, Giessen, Germany.

Almeida, J. (2023). *Contentopic mapping and object dimensionality - a novel understanding on the organization of object knowledge*. Invited speaker at the Symposium “From minibrains to thinking brains: studying cognition across levels of neural system complexity”. Bochum University, Bochum, Germany.

Almeida, J. (2023). *Contentopic mapping and object dimensionality - a novel understanding on the organization of object knowledge*. Invited speaker at the 2nd Annual Meeting of CIBIT, Coimbra, Portugal.

Almeida, J. (2022). *Contentopic mapping and object dimensionality - a novel understanding on the organization of object knowledge*. Invited speaker at the University of Lille, Lille, France.

Almeida, J. (2021). *Beyond bottom-up and top-down modulations: is there room for horizontal connections?* Invited speaker at the Cognitive Neuroscience Seminar (CNS) of the Department of Cognitive Neuroscience, Institute of Neuroscience and Medicine (INM-3) of the Forschungszentrum Jülich, Germany.

Almeida, J. (2020). *Beyond bottom-up and top-down modulations: is there room for horizontal connections?* Invited speaker at the Psychology Seminar Series of the School of Psychology, Bangor University, Bangor, UK.

Almeida, J. (2020). *Beyond bottom-up and top-down modulations: is there room for horizontal connections?* Helmholtz Lecture – Invited speaker at the Helmholtz Institute, Utrecht University, Utrecht, The Netherlands.

Almeida, J. (2019). *Action at a distance on object-related ventral temporal representations*. Invited Speaker at the University of Granada, Granada, Spain.

Almeida, J. (2019). *Otimização em idosos saudáveis: dados da neurociência experimental*. Invited Speaker at the VIII Jornadas de Psicologia of the University of Aveiro. Aveiro, Portugal.

- Almeida, J. (2019). *Action at a distance on object-related ventral temporal representations*. Invited Speaker at the Center for Neuroscience and Cell Biology, Coimbra, Portugal.
- Almeida, J. (2018). *Action at a distance on object-related ventral temporal representations*. Invited Speaker at the Université Catholique de Louvain, Belgium.
- Almeida, J. (2016). *Neuroplasticity in congenitally deaf individuals*. Invited Speaker at the Center for Brain and Cognition, Universitat Pompeu Fabra, Barcelona, Espanha (<http://cbc.upf.edu/node/36911>).
- Almeida, J. (2016). Decoding visual location from neural patterns in the auditory cortex of the congenitally deaf. Invited Speaker at the III Cognition, Emotion and Behavior: The Brain at Work. Faculty of Psychology and Educational Sciences of the University of Porto, Portugal.
- Almeida, J. (2016). The way of the light - how is visual information processed in the neuroplastically changed auditory system in congenital deafness. Invited Speaker at the Facultad de Psicología, Universidad de Valencia. Valencia, Spain.
- Almeida, J. (2016). The way of the light - how is visual information processed in the neuroplastically changed auditory system in congenital deafness. Invited Speaker at the V *Jornadas de Psicologia* of the University of Aveiro. Aveiro, Portugal.
- Almeida, J. (2015). *Macroscopic organization of object knowledge in the brain*. Invited speaker at the symposium “Between embodiment and neuronal recycling: contribution of the dorsal stream to visual perception” (<http://www.andreknops.com/wordpress/wp-content/uploads/2015/01/PreliminaryProgram.pdf>), Frankfurt am Main, Germany.
- Almeida, J. (2015). *Macroscopic organization of manipulable object knowledge: a window into semantics*. Invited Speaker at the X Meeting of the Portuguese Experimental Psychology Association – APPE, Faro, Portugal.
- Almeida, J. (2013). *Influência das vias visuais primárias no reconhecimento de objetos manipuláveis*. Invited Speaker at the LabLing, Faculty of Psychology and Educational Sciences of the University of Porto, Portugal.

- Almeida, J. (2012). *Low on High – how do low-level visual pathways affect high-level object recognition*. Invited speaker at the Champalimaud Neuroscience Program, Lisboa, Portugal.
- Almeida, J. (2012). *Low on High – how do low-level visual pathways affect high-level object recognition*. Invited speaker at IBILI, Coimbra, Portugal.
- Almeida, J. (2012). *Low on High – how do low-level visual pathways affect high-level object recognition*. Invited speaker at the Kessler Institute for Rehabilitation, New Jersey, USA.
- Almeida, J. (2012). *Low-level Influences on High-level Processing*. Invited speaker at Instituto Superior de Psicologia Aplicada, Lisbon, Portugal.
- Almeida, J. (2011). *Dorsal and ventral stream impairments: how optic ataxia and visual agnosia constrain theories on object recognition*. Invited speaker at the Department of Brain and Cognitive Sciences, University of Rochester, EUA.
- Almeida, J. (2010). *Emotions of the unconscious: how visually suppressed angry faces affect our decisions*. Invited speaker at the Centro de Investigação e Intervenção Social, ISCTE.
- Almeida, J. (2010). *Unconscious processes reveal different circuits for visual object recognition*. Invited speaker at the Cognition Brain and Behavior seminar, Department of Psychology, Harvard University.
- Almeida, J. (2009). *Turning neutral to negative: subcortically processed angry faces influence valence decisions*. Invited speaker at the HSMBB Symposium: The Harvard Society for Mind, Brain, and Behavior. Cambridge, USA.
- Almeida, J. (2009). *Grasping Naming: how action knowledge influences object recognition*. Invited speaker at Beijing Normal University, Beijing, China.
- Almeida, J. (2008). *Dissociação Categorical do Processamento Inconsciente*. Invited speaker at the Faculty of Psychology and Educational Sciences of the University of Lisbon. Lisbon, Portugal.
- Almeida, J. (2008). *Category-Specific Priming for Binocular Suppressed Images*. Invited speaker, Department of Psychology, Harvard University.

6. FUTURE SCIENTIFIC PERSPECTIVES

In this section I briefly present the lines of research that I intend to pursue in the upcoming years. Specifically, I propose three major lines of research (one yet to start that will be presented in the career development plan), and a satellite research line. These lines of research will guide my future research at the University of Coimbra. My three main lines of research focus on how we recognise and manipulate objects – a topic that has been central to my research since the beginning of my career. The other more satellite line of research will run parallel to the main lines of research, and focuses on understanding the neuroplastic changes present in congenital deaf people. More specifically, the three lines of research are:

1) *ContentMAP*: This is my main line of research. In this line, which I am currently working on and which already has some articles published (e.g., Almeida et al., 2023, in the journal *Communications Biology*) I seek to understand how we can recognize objects with such apparent ease and proficiency, despite the computationally intense and complex processes that are involved in object recognition. Specifically, the *ContentMAP* line of research proposes that this object recognition depends, in part, on an efficient organization of the knowledge we hold about objects in the brain. This line of research proposes a new understanding of the way knowledge about objects is organized - this knowledge is represented topographically on the cortical surface according to object-related dimensions that encode different types of information. I call this contentopic mapping (as an analogy to retinotopy or tonotopic mapping). This line of research is funded by a *European Research Council (ERC) Starting Grant*. In addition, parts of this research were funded by two projects supported by the Foundation for Science and Technology, Portugal: Projects PTDC/MHC-PCN/6805/2014 and PTDC/MHC-PCN/0522/2014.

2) *Horizontal modulations and the importance of wide neural connectivity*: This line of research aims to measure how the brain processes information at a local and global level. It focuses on how local processing in areas dedicated to object recognition is defined locally, but also globally through the expression of effects coming from distal processing in areas that belong to the same neural network as the local node. Over the last 7 years I

have published several papers that explore this topic and demonstrate that local processing is dependent on distal processing. Data from several articles (e.g., Walbrin & Almeida, 2021, *Journal of Neuroscience*) shows that areas that are distally located from the target area, but that belonging to the same (domain-)specific processing network strongly influence the local response. We will develop further studies using temporally more sophisticated techniques (e.g., EEG) as well as the study of patients to further explore these questions. This line of research was supported by a project of the Foundation for Science and Technology, Portugal and Portugal 2020 – NetworkstDCS.

3) *Visulary – a neurally inspired visual vocabulary for visual object recognition*: In this project, that I am about to start, I focus on going deeper into the units of organization in object cortex. A central challenge of visual object recognition (VOR) is that objects are not unstructured, unitary things – they have structured parts and features. Defining these components is a major step in resolving VOR. VISULARY (as in VISUal vocabuLARY) will put forth a novel understanding of the neural and computational processes at play during VOR, by focusing on the cognitive and neural, spatial and temporal nature of the component vocabulary used when recognizing objects from visual inspection. VISULARY proposes that the entries in this vocabulary are mid-level, moderately complex features – i.e., those naturally segmented object components that are directly extractable from the visual stimulus. I will uncover this component vocabulary from the columnar structure of object-selective cortex using high resolution neuroimaging (ultra-high field MRI, intracranial recordings, and high-density EEG) in human participants. I will identify: 1) the columnar structures in object-selective cortex; 2) the most effective stimuli for driving these columns – by hypothesis, moderately complex features; and 3) the chronometry of the processing of these features. This project will be a large part of what my laboratory will do in the near future, and is part of an ERC grant that I will submit soon for evaluation.

4) *SeeingEars*: In this line of research I have explored how neuroplasticity modifies the way visual information is processed and transmitted in the brains of congenital deaf individuals. My previous research has shown that the auditory cortex of congenital deaf individuals exhibits considerable plasticity, and can even be recruited to process visual stimuli (Almeida et al., 2015, *Psychological Science*). The fact that visual information can be processed in the auditory cortex of congenitally deaf individuals leaves several

important questions open that I have addressed in this line of research. Namely, I am exploring the role of auditory and visual subcortical areas in the passage of visual information to the auditory cortex in congenitally deaf people. This line of research was supported by a project of the Foundation for Science and Technology, Portugal and Portugal 2020 – *SeeingHears* and by a BIAL 112/12 project.

These research lines will translate into a very relevant scientific production for the University of Coimbra and for the national and international scientific community. For example, one of the main papers of the ContentMAP project was submitted to the journal *Science* and was submitted for peer review. Although it was rejected, we are now preparing the paper to be submitted to another major journal. In fact, it is my strong conviction that the elements provided in my *Curriculum Vitae* (both in the previous and following sections) are clear indicators that the development of the proposed lines of research, and concomitantly my future scientific production, will be very relevant not only at the University of Coimbra, but also at the level of the national and international scientific community, and the community at large.

7. COORDINATION AND PARTICIPATION IN SCIENTIFIC PROJECTS

During my career I have held several positions of scientific coordination and leadership. These positions are reflected throughout my *Curriculum Vitae* at the level of:

1) **scientific publications.** As detailed above, about 70 % of my publications are either as first, senior, and/or corresponding author. Moreover, after obtaining my PhD in 2011, I published only three papers with my supervisors (Alfonso Caramazza and Ken Nakayama). This is clearly demonstrative of my coordination and leadership skills, and my scientific independence.

2) **scientific funding.** This is undoubtedly where I have shown, most visibly and directly, my ability to lead research teams and my capacity for scientific coordination. From the moment I obtained my PhD I have been able to raise more than 5,5 million euros in scientific funds as described below. These projects have been funded by the Foundation for Science and Technology (FCT), the BIAL Foundation, the European Research Council and the European Research Area, in competitive calls, and sometimes under a climate of financial and health crisis. Importantly, many top international researchers in the field figure as team members in many of my projects, including Alfonso Caramazza, Melvyn Goodale, Jody Culham, Yanchao Bi, Angelika Lingnau, Niko Kriegeskorte or Bradford Mahon. Moreover, many up-and-coming junior researchers have been hired under funds provided by these projects. Overall, this demonstrates the capacity to lead in science, and to bring together, successfully, researchers at different levels of their careers. Notably, the goals of these projects have all been successfully achieved (or are on the verge of being achieved). In fact, one of these projects – “Object recognition and conceptual information about objects: independencies and interdependencies” – was distinguished by FCT as the best project in the psychology panel in the 2013 evaluation of the concluded projects. All these aspects are an unequivocal demonstration of my current and future capacity of international scientific leadership.

3) **team coordination.** My dedication to, and capacity for, coordination and scientific leadership became more visible when in 2013 I created my laboratory – the [Proaction lab](#) (Laboratory for the Perception and Recognition of Objects and Actions). At the Proaction lab, I coordinate an extended team of researchers at all levels of scientific independence. Specifically, I supervise 7 post-doctoral researchers, 4 doctoral students, 5 master students, 3 hired pre-doctoral researchers, and a large number of undergraduates and research assistants. Of these, 8 are currently funded directly by projects where I am PI or

Co-PI. Moreover, I have managed to attract many independent researchers to the lab under competitive calls. The most prominent example is that of Dr. Ben Harvey, now an Associate Professor at the University of Utrecht, who came to the Proaction Lab under funds by FCT (e.g., “Investigador FCT” program).

I am also a member of the board of directors of the Center for Neuropsychology and Cognitive-Behavioral Interventions (CINEICC) – a research center evaluated as an excellent center in the last two nation-wide evaluations performed by FCT. CINEICC holds more than 100 members in total, and as one of the four members of the board of Directors, I hold many coordination and science management duties. At CINEICC, I also coordinate one of the four lines of research that the center holds: the “Cognition Brain and Behavior: a Cognitive Neuroscience approach to the Human Mind” line of research. In this line of research, I coordinate a large group of researchers with different research interests within cognition and mathematical modelling.

Finally, I have also coordinated several teams of national and international senior researchers. For instance, in the project “Mais Memória” (funded by the BIAL Foundation), we targeted the cerebellum with neuromodulation techniques in order to ameliorate memory performance in healthy aging. Here, I led a team of researchers that included Felipe Fregni (Professor at the Harvard Medical School), Marcel Simis (Professor at the University of São Paulo), and Mario Simões (Professor at FPCE-UC). From 2011 to 2015, I coordinated another multinational scientific team in order to study the neuroplasticity of the auditory cortex of congenital deaf people. This team was composed by established researchers from Chinese, American and Portuguese Universities and included Yanchao Bi (Professor at Beijing Normal University), Fang Fang (Professor at Peking University), Bradford Mahon (back then, Professor at the University of Rochester) and Óscar Gonçalves (back then, Professor at the University of Minho). Since 2009 I have co-coordinated with Bradford Mahon a Portuguese-American research team that focuses on the study of object recognition and conceptual knowledge of manipulated objects. More recently, I have also coordinated and co-coordinated a set of research teams that revolve around my ERC Starting Grant ContentMAP. These include senior researchers such as Hamed Nili, Alessio Fracasso, Ben Harvey and others.

4) **collaborative networks**. A final demonstration of my leadership and scientific coordination skills is evident in my extensive network of international collaborations with some of the most important researchers in the field. The most paradigmatic example is my collaboration with Bradford Mahon.

7.1 Research projects

- 2023-present *CogBooster – Rebooting Psychological Research through Cognitive Neuroscience.* (ERA Chair; €2.499.827,50). **Coordinator: Jorge Almeida.**
- 2022-present *Deep-Cog: a Deep Neural Network for Abnormal Cognitive Decline Detection Based on Multimodal Data.* (grant 2022.15824.CPCA.A2; Advanced Computing grant Fundação para a Ciência e a Tecnologia, Portugal; computing hours) Principal Investigator: André Peres (Post-Doctoral Researcher in my laboratory); **Co-Principal Investigator: Jorge Almeida.**
- 2021-present *ContentMAP: fMRI brain-mapping of object knowledge* (grant 2021.09761.CPCA; Advanced Computing grant Fundação para a Ciência e a Tecnologia, Portugal; computing hours) Principal Investigator: Jonathan Walbrin (Post-Doctoral Researcher in my laboratory); **Co-Principal Investigator: Jorge Almeida.**
- 2019-present *ContentMAP – Contentotopic mapping: the topographical organization of object knowledge in the brain.* (ERC Starting Grant; €1.803.000,00). **Principal Investigator: Jorge Almeida.**
- 2018-2023 *NetworktDCS: Unravelling systems level properties of transcranial direct current stimulation (tDCS) - the case for distal, flexible and additive effects.* (Fundação para a Ciência e a Tecnologia, Portugal and Portugal 2020; €239.997,76). Principal Investigator: Fredrik Bergström (Post-Doctoral Researcher in my laboratory); **Co-Principal Investigator: Jorge Almeida.**
- 2018-2023 *Seeing with your ears: how deafness-induced neuroplasticity impacts neural processing and auditory restoration efforts* (Fundação para a Ciência e a Tecnologia, Portugal and Portugal 2020; €239.995,90). Principal Investigator: Qasim Bukhari (Post-Doctoral Researcher in my laboratory); **Co-Principal Investigator: Jorge Almeida.**

- 2016–2020 *Object Metrics - the neural organization of object knowledge* (PTDC/MHC-PCN/0522/2014; Fundação para a Ciência e a Tecnologia, Portugal; €199,988.00). **Principal Investigator: Jorge Almeida.**
- 2016–2019 *Object Metrics: mapping and modelling of the topographic organization of the object-selective cortex by means of functional magnetic resonance imaging and graph theory* (Ação Integrada A02/16; Conselho de Reitores das Universidades Portuguesas and DAAD, Germany; €2,000.00). **Principal Investigator for the Portuguese team: Jorge Almeida.**
- 2016–2020 *What defines an affordance? The diagnosticity of visual features for the differentiation of affordances* (PTDC/MHC-PCN/6805/2014; Fundação para a Ciência e a Tecnologia, Portugal; €199,985.00). Principal Investigator: Dongha Lee (Post-Doctoral Researcher in my laboratory); **Co-Principal Investigator: Jorge Almeida.**
- 2016–2018 *Fear Memory - A Neuromodulation Study in Generalized Anxiety Disorder* (PTDC/MHC-PAP/5618/2014; Fundação para a Ciência e a Tecnologia, Portugal; €199.962,00). Principal Investigator: Ana Ganho-Ávila (Post-Doctoral Researcher in my laboratory); **Co-Principal Investigator: Jorge Almeida.**
- 2015–2018 *Episodic memory enhancement in aging: the role of cognitive training and tDCS in the medial temporal cortex and cerebellum on episodic memory performance in the elderly* (Grant 2014/43; Fundação BIAL; €45.900,00). Principal Investigator: Mário Simões; **Team member, but effectively coordinating the team.**
- 2013–2016 *How low-level segregation within the visual system impacts high-level object recognition* (PTDC/MHC-PCN/3575/2012; Fundação para a Ciência e a Tecnologia, Portugal; €94.736,00). **Principal Investigator: Jorge Almeida.**
- 2013–2016 *Retinotopic reorganization of the auditory cortex of congenitally deaf individuals due to neuroplasticity* (Grant 112/12; Fundação BIAL; €45.000,00). **Principal Investigator: Jorge Almeida.**
- 2011-2013 *Marie Curie Fellowship – Welcome II Portugal* (Fundação para a Ciência e a Tecnologia, Portugal and Marie Curie/European Research Area; ~€128.000,00). **Principal Investigator: Jorge Almeida.**

- 2010-2013 *O reconhecimento de objectos e a informação conceptual sobre objectos: independência e inter-dependência* (PTDC/PSI-PCO/114822/2009; Fundação para a Ciência e a Tecnologia; €95.172,00). **Principal Investigator: Jorge Almeida.**
- 2006-2010 *Doctoral Fellowship* (Fundação para a Ciência e a Tecnologia). **Principal Investigator: Jorge Almeida.**
- 2006-2010 *Pre-Doctoral Fellowship* (Fundação Calouste Gulbenkian). **Principal Investigator: Jorge Almeida.**

7.2 Scientific leadership

During my career I have assumed several leadership roles in research and laboratory management: I am Principal Investigator/Director of the Proaction Laboratory at the Faculty of Psychology and Educational Sciences of the University of Coimbra; I coordinate at Proaction Laboratory a large team of researchers at all levels of scientific independence; and I co-coordinate and/or co-coordinated national and international research teams composed, among others, by researchers from Beijing Normal University, Peking University, University of Rochester, Carnegie Mellon University, Glasgow University, Utrecht University, University of Amsterdam, University of Minho, among others.

Specifically, at Proaction Laboratory, I coordinate a team with 7 Postdoctoral researchers, 4 PhD Students, and several Research Assistant and Master's Students. Of these researchers, 12 are currently directly funded by projects where I am PI, Co-PI, or in which I was an integral part in the preparation and writing (and execution). Since the creation of Proaction Laboratory, I have coordinated and supervised several researchers at various levels of their careers – from undergraduate, master's and doctoral students, to postdoctoral researchers and independent researchers funded by FCT who have remained in my laboratory as independent collaborators. The most prominent example is that of Dr. Ben Harvey, now an Associate Professor at Utrecht University, the Netherlands. In addition to these researchers, the projects in which I am/was PI or Co-PI have in their teams world-class researchers such as Drs. Mel Goodale, Niko Kreigeskorte, Jody Culham, Angelika Lingnau, or Bradford Mahon.

Prior to the creation of my laboratory, I had already coordinated several research teams. For example, from January 2011 to December 2012 I coordinated a group of young researchers at the School of Psychology of the University of Minho and at the Faculty of Psychology of the University of Lisbon. These researchers were students of the Integrated Masters in Psychology, developed research within my projects, and were supervised by me. The emphasis of my work with these researchers-in-training was on the creation of research routines and the ability to constructively produce and critique cognitive science. Interestingly, 3 of these researchers in training later obtained a PhD scholarship in the FCT calls for individual PhD scholarships. This type of coordination is something that I already done at Harvard University during my PhD – in fact, at least one of these young researchers later entered the doctoral program at Harvard University. In addition to coordinating these teams, I also coordinated several international research teams. One important example was the coordination of an international team that involved 2 senior researchers at Beijing Normal University and *Peking* University in China, 1 senior researcher at the University of Rochester in the USA, and another senior researcher at the School of Psychology of the University of Minho. This international team also included 2 PhD students in Psychology at Peking University, China, and a Master's student and a Research Assistant at the School of Psychology at the University of Minho. Another important case is related to the co-coordination (from 2008 to the present) of several projects with Dr. Bradford Mahon, which included the (shared) leadership and coordination of research teams at the University of Rochester and Carnegie Mellon University, and at the Universities of Lisbon and Coimbra.

7.3 Research networks

- | | |
|----------------|---|
| 2019 – present | Collaboration with Alessio Fracasso and Ben Harvey on pRF analysis in higher-level processing. |
| 2015 – present | Research network with Hamed Nili and partly with Niko Kriegeskorte (member of a research team in a funded project) on <i>Representation Similarity Analysis</i> . |
| 2015 – 2019 | Research network with Mel Goodale and Jody Culham (members of a research team in a funded project) on object recognition, affordances and visuomotor processing. |

- 2015 – 2019 Research network and collaboration with Angelika Lingnau on Object recognition.
- 2013 – 2020 Research network with Felipe Fregni, Paulo Boggio, Marcel Simis and Hamed Ekhtiari on neural stimulation.
- 2012 – 2013 Collaboration with Matthew Finkbeiner on motion tracking as a window to cognition.
- 2011 – present Collaboration with Yanchao Bi and Fang Fang on congenital deafness.
- 2010 – present Collaboration with Óscar Gonçalves on deafness and on neural stimulation techniques.
- 2010 – present Extended collaboration with Isabel Pavão Martins on single case studies in patients with brain lesions.
- 2006 – present Extended collaboration and research network with Bradford Mahon on object recognition.

8. ACTIVE PARTICIPATION IN THE COMMUNITY WITHIN AND OUTSIDE THE UNIVERSITY

My *Curriculum Vitae* shows that I have had an active and extremely relevant scientific intervention within the university at the community at wide. This intervention has had a national and international impact, both in terms of the organization and management of scientific activity, as well as the transmission of knowledge to society, and participation in scientific assessment.

I have been part of the board of directors of national Associations and Research Centers related to Psychology and Cognitive Neuroscience, and I have participated in different Scientific Councils at the Universities I have worked in. Specifically, I was a member of the Board of the Behavioral Neurology Section of the Portuguese Society of Neurology from 2011 until the beginning of 2018, and I am currently a member of the governing bodies of the Portuguese Association of Experimental Psychology. My presence in the Board of Directors of the Behavioral Neurology Section of the Portuguese Society of Neurology aimed to strengthen the connection between Neurology and Psychology in Portugal. In addition to these management positions of Scientific Associations, I am part of the current Board of directors of the Center for Research in Neuropsychology and Cognitive Behavioral Intervention (CINEICC), and I am also the Scientific Coordinator of the Research Line Cognition, *Brain, and Behavior* of the same Center. Finally, I am (or have been) a member of several Scientific Councils: the Scientific Council of CINEICC; and, at a more global level of the University of Coimbra, the Scientific Council of the Institute for Interdisciplinary Research of the University of Coimbra (IIIUC), and the Scientific Council of the Faculty of Psychology and Educational Sciences of the University of Coimbra. These scientific councils are central decision bodies of the University, and have a major role in defining the scientific policies to be followed.

In terms of the organization of scientific activity, I was part of several Scientific and Organizational Committees of national and international conferences, such as the meeting of the *European Society for Cognitive and Affective Neuroscience (ESCAN)* in 2016, or the meetings of the Portuguese Association of Experimental Psychology and the Behavioral Neurology Section of the Portuguese Society of Neurology. Recently I started the organization of several workshops and research meetings at the University of

Coimbra. For instance, I have co-organized a workshop in fMRI – the Coimbra and Regensburg Advanced NeuroImaging workshop (CRANIO) – with Angelika Lingnau and Jens Schwarzbach. I have also organized a series of one-day meetings sponsored by IBRO (the International Brain Research Organization) – NEOPSY: New Interdisciplinary Horizons in Psychological Research Series – where I invited a series of very influential Cognitive Neuroscientist to present their work and discuss the role of Cognitive Neuroscience in Psychology. The speakers included Mel Goodale, Kalanit Grill-Spector, Kendrick Kay, Jessica Cantlon, Gustavo Deco, Niko Kriegeskorte, and Adrien Owen among others. Finally, I have organized the first edition of the Seeing and Acting Workshop (SAW), and event will be annual and will attract numerous young and more senior researchers and will invite excellent researchers to discuss their work on the workshop. The invited speakers at the first edition were Alex Martin, Bradford Mahon, Erez Freud, Laurel Buxbaum, Leyla Isik, Nancy Kanwisher, and Ricarda Schubotz.

Finally, I have been invited to discuss the scientific future of international associations, as well as to reflect on aspects of central importance for scientific activity and international cooperation. Specifically, I was part of the restricted group of researchers from the European space that discussed the future of the *European Conference on Visual Perception*, having prepared an implementation booklet for future conferences, and I was also one of the guests invited to join the panel discussion on Transatlantic relations in biomedical research ([Enhancing U.S.-Portugal Biomedical Research Collaborations Meeting](#)) organized by the NIH and the U.S. Embassy in Portugal, which resulted in a [report](#) with the panel's recommendations to increase NIH-funded Portuguese-American collaborations in biomedical research.

Regarding the transfer of knowledge to society, I have discussed widely the results of my research in newspapers and other media of international, national and regional circulation. For example, in 2015 I was interviewed on RTP's "Informação da Manhã" program about healthy aging and intervention strategies to prevent pathological aging through neuronal stimulation. That same year, the project on neuroplasticity in congenital deaf people was reported in regional and national newspapers (e.g., *Diário de Coimbra*, *Correio da Manhã*), and was also featured on the website of the [Association for Psychological Science](#). In 2018 and 2019 I was interviewed on the program "Mentes que Brilham" on Porto canal about my research and about the ContentMAP project. Lately I have been interviewed and written pieces to national newspapers on the importance of Cognitive Neuroscience and of Basic Science. In addition to these more traditional formats of transmitting

knowledge to society, I have also used *social media* to disseminate knowledge about my ongoing projects through the Proaction Lab facebook page (see [here](#)), as well as various participations in events dedicated to the general population.

Finally, with regard to participation in scientific assessment tasks, I have had an extremely strong intervention, especially for my current career level. I have been involved in several assessment committees of national and international scientific systems. As an example of the importance of my intervention in the university community at a global level, I was part of the Social Sciences and Humanities Panel for *Consolidator Grants* of the *Temporary Backup Scheme* created by the *Swiss National Science Foundation* when Swiss or Swiss-based researchers were banned from applying to the *European Research Council (ERC)*. Recently I have also been invited to be part of evaluation panels and to be a remote evaluator for some of the most prestigious scientific funding institutions in the world (e.g.: *ERC*; *Marie Skłodowska-Curie Actions*; *Medical Research Council*; *the NOW Talent Programs*).

8.1 Scientific management

- 2023 – present Organization of the annual Seeing and Acting Working: Functional and Neural Perspectives (SAW) at *Faculty of Psychology and Educational Sciences of the University of Coimbra* as part of the ERA Chair CogBooster.
- 2023 – present Organization of the annual Psychology Seminar at *Faculty of Psychology and Educational Sciences of the University of Coimbra* as part of the ERA Chair CogBooster.
- 2023 Organization of the IV International Congress of the Research Center for Neuropsychology and Cognitive Behavioral Intervention (CINEICC)
- 2021 – 2023 Member of the Scientific Council of the *Faculty of Psychology and Educational Sciences of the University of Coimbra*.
- 2021 – 2022 Organization of the series of Conferences: “New Interdisciplinary Horizons in Psychological Research Series” funded by IBRO and the ERC.

- 2019 Organization of the international workshop CRANIO (Coimbra Regensburg Advanced NeuroImaging wOrkshop).
- 2019 – present Member of the [International Network of tES-fMRI](#) forum.
- 2018 – present Several talks on how to get and manage and ERC (or any major grant. e.g., The pathway to a successful erc proposal: sharing knowledge and experiences; Invited talk at the 23rd Conference of the European Society for Cognitive Psychology, Porto, Portugal.
- 2018 – present Member of the Scientific Council of the *Institute for Interdisciplinary Research of the University of Coimbra* (IIIUC).
- 2018 – present Member of the *Society for Neuroscience*
- 2017 – present Member of the Scientific Council of the *Center for Research in Neuropsychology and Cognitive-Behavioral Interventions* (CINEICC).
- 2017 – present Scientific Coordinator of the *Cognition, Brain, and Behavior* line of research at the *Center for Research in Neuropsychology and Cognitive-Behavioral Interventions* (CINEICC).
- 2017 – present Member of the governing bodies of the *Portuguese Experimental Psychology Association* (APPE).
- 2017 Panel member on the task force “[Enhancing U.S.-Portugal Biomedical Research Collaborations Meeting](#)” organized by NIH and by the US Embassy in Portugal. The following [report](#) was written with the recommendations of the panel.
- 2016 Organizing committee of the *European Society for Cognitive and Affective Neuroscience* (ESCAN), Porto, Portugal.
- 2015 Panel member of the discussion on the future of *European Conference on Visual Perception*, Liverpool, UK.
- 2014–2017 Director of the Coimbra site for the “*Principles and Practice of Clinical Research*” course. Faculty of Psychology and Educational Sciences, University of Coimbra and Harvard Medical School, USA.
- 2014 Organizer of the Transcranial Magnetic Stimulation course (15 participants; 44 hours). University of Coimbra, Portugal.
- 2013 – present Member of the *Portuguese Experimental Psychology Association* (APPE).

- 2013 – present Member of the *Center for Research in Neuropsychology and Cognitive-Behavioral Interventions (CINEICC)*.
- 2012 Organizing committee of NEURO2012 – a conference by the *Portuguese Society for Neurology*.
- 2012 Organizing committee of the 7th annual meeting of the Portuguese Experimental Psychology Association (APPE). Lisbon Portugal.
- 2012 – 2018 Co-Organizer of the bi-yearly meetings of the Section of Behavioral Neurology of the Portuguese Neurology Society, Portugal.
- 2011 – 2018 Member of Board of Directors of the Behavioral Neurology Section of the *Portuguese Society for Neurology*.
- 2011 – 2013 Member of the *Association for Psychological Science*
- 2001 Member of the Organizing Committee of the National meeting of the Psychology Students (ENEP). Specifically in charge of the scientific program.

8.2 Transfer of knowledge to society

- 2023 National and local media coverage about our research article “The cerebellum is causally involved in episodic memory under aging”
- 2023 National and local media coverage about the kick-off of the Era Chair project “*CogBooster*” at the University of Coimbra
- 2023 Interview at the podcast “Da Capa à Contracapa” about the connection between mind, brain, and education
- 2022 Opinion article in the national newspaper Público about science and horoscopes.
- 2022 National and local media coverage about the recently funded Era Chair projects at the University of Coimbra including “*CogBooster*”
- 2022 Presentation at Inovação@UC about the ERC research project “*ContentMAP*”
- 2022 Interview at the podcast Brain Gain - À Descoberta das Neurociências

- 2022 Interview at the local newspaper Diário As Beiras about the ERC research project "*ContentMAP*", both in a news article and in a short video broadcasted on the newspaper's digital platforms
- 2022 National and local media coverage about our research article "Underfunding Basic Psychological Science Because of the Primacy of the Here and Now: A Scientific Conundrum"
- 2022 Talk about "Resilience in Grant Writing" at the event "Well-Being for Scientists" to an audience of researchers from the University of Coimbra
- 2022 Interview at the local newspaper Diário de Coimbra about basic psychology
- 2021-2022 Main organizer of the conference series "[New Interdisciplinary Horizons in Psychological Research Series](#)" funded by IBRO (national newspaper selected [news](#) on the event).
- 2021 Invited speaker at the science communication festival *Pint of Science* in Coimbra, Portugal.
- 2021 Participant on a science communication school project "Neuroscientists on demand" organized by our lab and funded by FENS, raising awareness about neuroscience research to young students on Brain Awareness Week.
- 2019- present Participant in European Researchers' Night science communication events with hands-on activities and speed dating sessions with local citizens. This included local press coverage.
- 2020 [Interviewed](#) for an in-depth news report about the field of neuroscience, about the ERC project project "*ContentMap*" and other projects being developed in the laboratory.
- 2020 Covered in national and international media regarding my research on hemi- prosopometamorphopsia (including in [IFLScience](#) "*Extremely Rare Condition Made A Patient See Faces Appear As Half Melted*").
- 2020 Coordinator of a science communication project "*NeuroArt*", that consisted of connecting scientific research and art, by producing visual elements from EEG signals of participants.

- 2019 Interviewed for the television program “*Mentes que Brilham*” on recent research published in *Cortex*.
- 2019 Participant on Science and Technology week activities, namely open lab sessions, where students and local citizen visited our laboratory facilities and got to know our research projects, goals and methodologies. This included local press coverage.
- 2019 [Interviewed](#) for the national television show “*Muito Barulho Para Nada*” in RTP2 about the laboratory and the ERC research project “*ContentMap*”.
- 2019 Covered in national and local media about our recent research and authorship of the cover design of *Cortex* journal [e.g. [Centro TV](#); [Notícias de Coimbra](#); [Campeão das Províncias](#); [Diário de Coimbra](#); [Diário as Beiras](#); [Port.Com](#); [Mais Superior](#);].
- 2019 Covered in local media about the inauguration of new laboratory facilities raising awareness for future research that will be developed by our group [e.g., *Notícias de Coimbra* via [web](#) e [imprensa](#); [Campeão das Províncias](#); *Diário de Coimbra* [notícia 1](#) and [notícia 2](#) ; *Diário as Beiras* [artigo 1](#) and [artigo 2](#);].
- 2019 Covered in local and national media about our research article “Action at a distance on object-related ventral temporal representations” [e.g., [Elvas News](#); [Vila Nova](#); [Jornal de Monchique](#); *Notícias de Coimbra* [notícia na web 1](#) and [notícia na web 2](#); [Diário as Beiras](#); [Diário de Notícias](#); [JM](#); [Mundo Português](#); [Notícias ao Minuto](#); [Notícias do Nordeste](#); [Sapo Lifestyle](#); [TSF](#); [Sapo 24](#); [Diário de Notícias da Madeira](#);].
- 2019 Covered in local and national media about the ERC research project “*ContentMAP*” [e.g., *Diário as Beiras* [Web](#) and [Imprensa](#); [Diário de Coimbra](#); [Diário de Viseu](#); [V Digital](#); [Plataforma](#);].
- 2018 [Interviewed](#) for the television program “*Mentes que Brilham*” about the ERC research project “*ContentMap*”.
- 2018 [Interviewed](#) twice in local radio (RUC) station about my career path and about the ERC research project “*ContentMap*”.
- 2018 Covered massively on national media about recently funded ERC projects in Portugal, including mine. [e.g., [Ambiente Magazine](#);

Diário de Notícias lançou dois artigos ([artigo 1](#) e [artigo 2](#)); [Expresso](#); [Impala News](#); [Jornal Económico](#); [Notícias ao Minuto](#); [Observador](#); [Porto Canal](#); [RTP](#); [Sapo 24](#); [Sapo Lifestyle](#); [TSF](#); [TVI 24](#); Campeão das Províncias – [Diário Online](#), [Figura da Semana](#), [Figura do Ano](#); [Pplware Kids](#); [TV Europa](#); Diário as Beiras duas notícias em formato [web](#) e [Imprensa](#); Outro artigo no [Diário as Beiras](#); Diário de Coimbra em [web](#) e duas vezes na imprensa [artigo 1](#) e [artigo 2](#); Outra notícia no [Diário de Coimbra](#); Jornal i em [web](#) e [imprensa](#)); [Visão](#); O Despertar em [web](#) e [imprensa](#)); [Diário de Leiria](#); [País Positivo](#)];

- 2015 [Interviewed](#) for live news of the national television (RTP) about my project “*Mais Memória*”. There was also extensive media coverage in national newspapers.
- 2015 Dissemination of my work with congenitally deaf in various local, national, international media outlets (e.g., Diário de Coimbra, Diário de Leiria, Correio da Manhã, *Association for Psychological Science*, etc.)
- 2010 Covered in Pittsburgh Gazette about scientific knowledge in the processing of emotions and psychophysiology (<http://www.post-gazette.com/pg/10269/1090413-51.stm>).

8.3 Participation in scientific assessment

- 2023 – present Expert Reviewer for VICI grants under the Round NWO Talent Programme 2023 the Netherlands.
- 2023 – present Expert Reviewer for York University, Canada.
- 2018 External reviewer for the “*SH4 – The Human Mind and its Complexity*” panel of the European Research Council (ERC) *Consolidator Grant 2018*.
- 2018 Panel member for the *Marie Skłodowska-Curie Actions – Individual Fellowships (MSCA-IF)*.
- 2018 – present Invited expert for *REPRISE – Italian Ministry of Education, Universities and Research – MIUR*.

- 2016 External reviewer for the *Medical Research Council* (MRC-NMHB), UK.
- 2015 Panel member for Social Sciences and Humanities for *Consolidator Grants* of the *Swiss National Science Foundation* (temporary backup schemes).
- 2014 – 2016 Evaluation committee member for the R&D projects of the *Fundação para a Ciência e a Tecnologia, Portugal* – Psychology Panel.
- 2006 – present Ad-hoc Reviewer for several major journals in the field (e.g., *Current Biology*, *iScience*, *ELife*, *PNAS*, *Journal of Neuroscience*, *Psychological Science*, *Journal of Experimental Psychology: General*, *Human Brain Mapping*, *Cerebral Cortex*, *Cortex*, *NeuroImage*, *Brain Stimulation*, *Journal of Cognitive Neuroscience*, *Scientific Reports*).

Part II - TEACHING AND PEDAGOGICAL ACTIVITIES

In this section of my *Curriculum Vitae* I will present the teaching and pedagogical activities that have governed my career, which attest to the quality of my past and present teaching outputs and performance. The impact of my teaching activities is evident in the evaluations that students attribute to my courses, in the fact that I have been recognized by the University of Coimbra as an "exemplary" professor within a pedagogical project under the Rectorship, or in the ability to guide young students in the development of their career. I also think that my transformative intervention in the institutions where I have worked is also seen in the way I have innovated and created new courses and new training offers at various degree levels.

Thus, I will start by detailing my teaching activity, including the student surveys available for each course I have taught. I will then describe my mentoring and supervising activity, as well as how this mentoring is an integral part of my goal as a researcher and university Professor. After these sections, I will present the pedagogical material I have produced. Next, I will list the pedagogical projects that I have developed during my career, and finally I will specify how I have been actively intervening at the pedagogical level in the community, both university and outside the university.

9. TEACHING ACTIVITIES

The vast majority of my teaching activity has focused on compulsory courses of the common core of the former Integrated Master's Degree in Psychology (MIP) and the current “Licenciatura” in Psychology of the Faculty of Psychology and Educational Sciences of the University of Coimbra (FPCE-UC). More recently, I have also been dedicated to teaching at the master's level in two master's degrees that I co-created – the Interuniversity Master's degree in Clinical and Experimental Neuropsychology and the Master's degree in Psychological Sciences, as well as at the Doctoral degree in Psychology where I created the Cognitive Neuroscience branch.

Specifically, I have taught two courses – at the integrated Master's the “Behavioral Neuroscience” and “Neuropsychology” courses, and currently at the *licenciatura* the “Cognitive Neuroscience” and “Advanced Topics in Cognitive Neuroscience” courses – which consistently present a number of students above 200, aggregating not only all students of the Psychology course (which are the vast majority), but also students of the Anthropology, Biology, Biochemistry and Biomedical Engineering courses of the University of Coimbra. In addition to these courses, I have over the years taught as a coordinating teacher or collaborator several courses in the various teaching cycles, and in different Portuguese and foreign entities.

I thus have extensive experience in teaching in the various teaching cycles, with the different pedagogical specificities that these different cycles present, as well as in various types of classes (e.g.: large amphitheater *versus* small seminar), with students who have different levels of interest and knowledge, and in very different Faculties/Schools, which shows my ability as a teacher. My ability to adapt the contents and the level of demand to the different cycles, and adapt my teaching to different pedagogical environments shows not only my competence as a teacher, but also my versatility, qualities of the teaching activity that I intend to continue to implement at the University of Coimbra in the future.

In addition to these quantitative aspects, my teaching activities can also be assessed at a more qualitative level. One of my main goals as a teacher, and in line with modern pedagogical methodologies, is the abandonment of watertight and unquestionable passage of information that is exclusively unidirectional – from the Teacher to the student. This is not an easy path, much less in the courses that I have most consistently taught, where

about 200/250 students are enrolled, students who come from a heterogeneous educational context. It is, however, clear to me that this objective was achieved in the courses that I coordinate. I have based my teaching activity on active learning, fostering critical thinking and the scientific method as a learning method. At various times in my classes I use a Socratic method of learning, of questioning, of searching for answers, which forces students to think about themes as changeable and not as absolute truths. At all times, students are an integral part of the process of searching for answers and are actively involved in it. This way of stimulating learning, and learning to learn, is in fact something that I experienced as a PhD student, and that I practice in my day-to-day work. Doing it in the classroom context has been a little more complex, but nevertheless possible to achieve.

This more qualitative aspect has had a huge impact on the way students understand and evaluate the courses I teach. The pedagogical surveys of the main courses I teach demonstrate that my pedagogical strategy and the pedagogical methods that I use are well received by students. Specifically, I consistently present evaluations above 4 values (a maximum of 5 values; see figures below). Due to this evaluation by the students (and by colleagues unofficially) I was invited in 2017 to participate in the Ped@ES Project – Pedagogy in Higher Education. This project, which is coordinated by the Rector of the University of Coimbra and funded by the Calouste Gulbenkian Foundation, includes a set of 'conversations' and 'classes' with good University Professors, Professors who are "exemplary". The purpose of the Ped@ES project is to be able to design better and more qualified paths of training and construction of knowledge at the University and, for this, to be able to create communities of knowledge and practices with teachers that leave important 'marks' on students and colleagues. Thus, I was selected as a Professor with excellent pedagogical practices as described by the students of my courses.

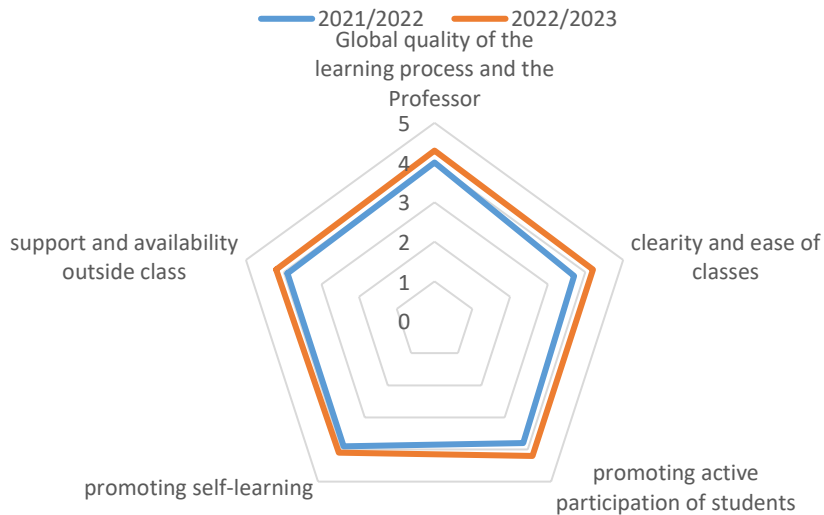
In short, I think that the pedagogical elements present in this section demonstrate excellence in teaching not only in the past and present, but undoubtedly pointing to excellence in teaching in the future.

9.1 At the Bachelor of Arts/Science level

2021- present “Cognitive Neuroscience”. Main Professor and sole coordinator.
Compulsory course in the Psychology BA at the Faculty of

Psychology and Educational Sciences of the University of Coimbra.
 Below I present the available student ratings of the course. Note that some classes are taught in English.

Student evaluation of the course

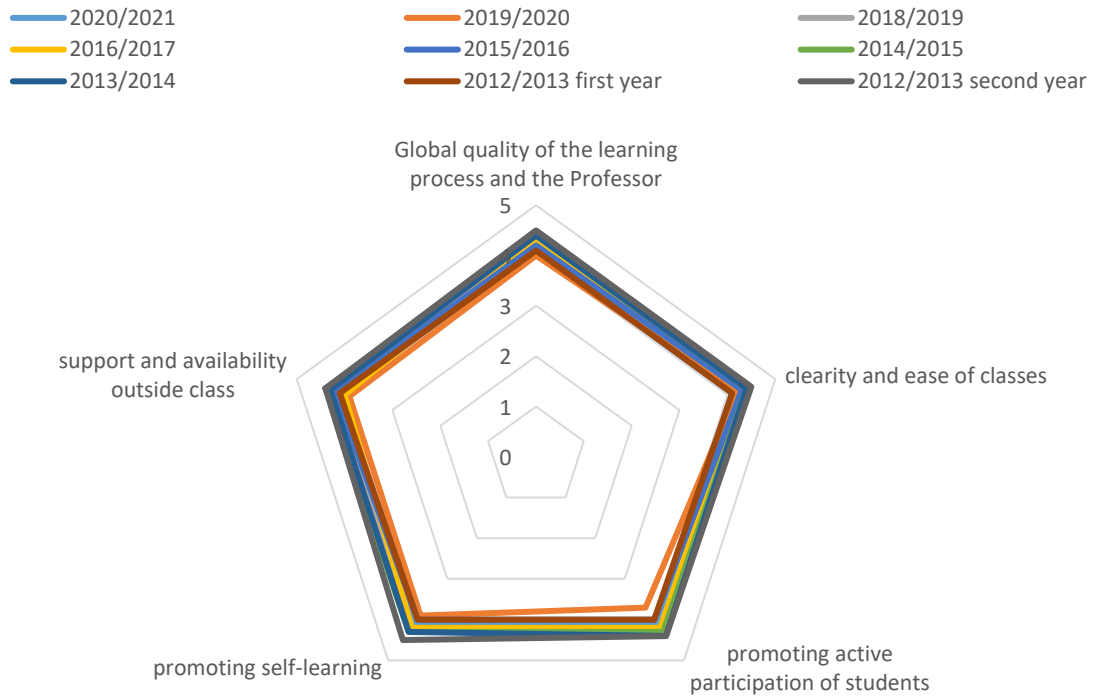


2021- present “Advanced Topics in Cognitive Neuroscience”. Main Professor and sole coordinator. Compulsory course in the Psychology BA at the Faculty of Psychology and Educational Sciences of the University of Coimbra. Unfortunately, the ratings from the students are not available.

2013 – 2020 “Neuropsychology”. Main Professor and sole coordinator. Compulsory course in the Integrated Masters in Psychology (BA level) at the Faculty of Psychology and Educational Sciences of the University of Coimbra.

Below I present the available student ratings of the course. Note that from 2018 onwards (when I obtained my ERC), I started to teach fewer classes and those classes were taught by individuals working at my lab in English – this may have led to a decrease in my overall rankings. Note also that in the academic year of 2017/2018, I was on Leave of Absence. Finally, note that in the academic year 2012/2013 I taught this course to both first- and second-year students separately.

Student evaluation of the course per year



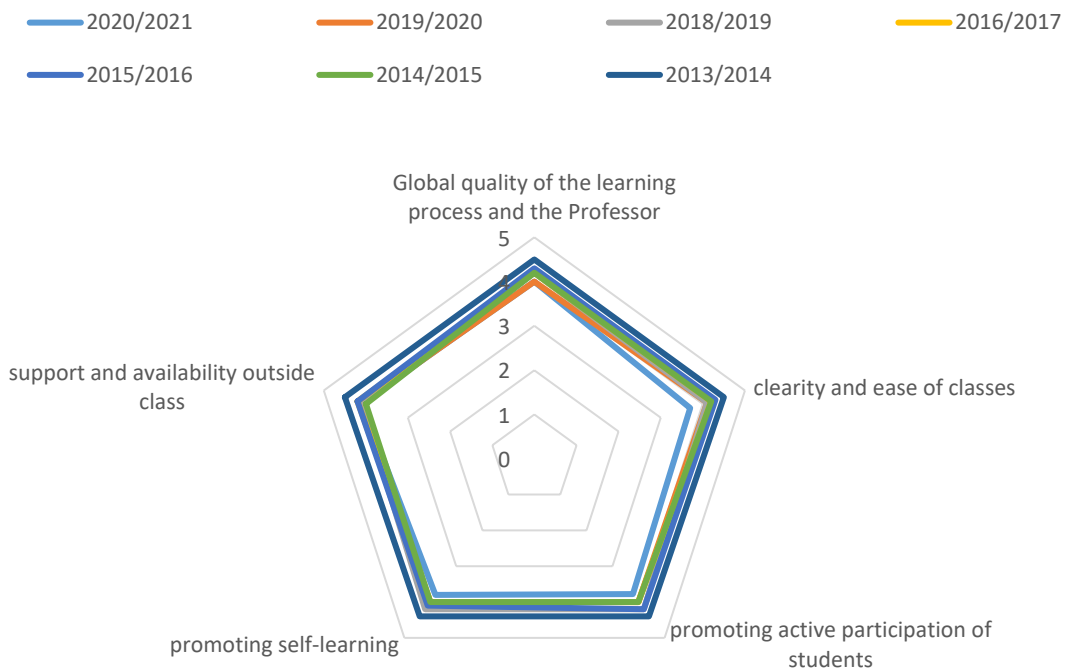
Average student evaluation of the course



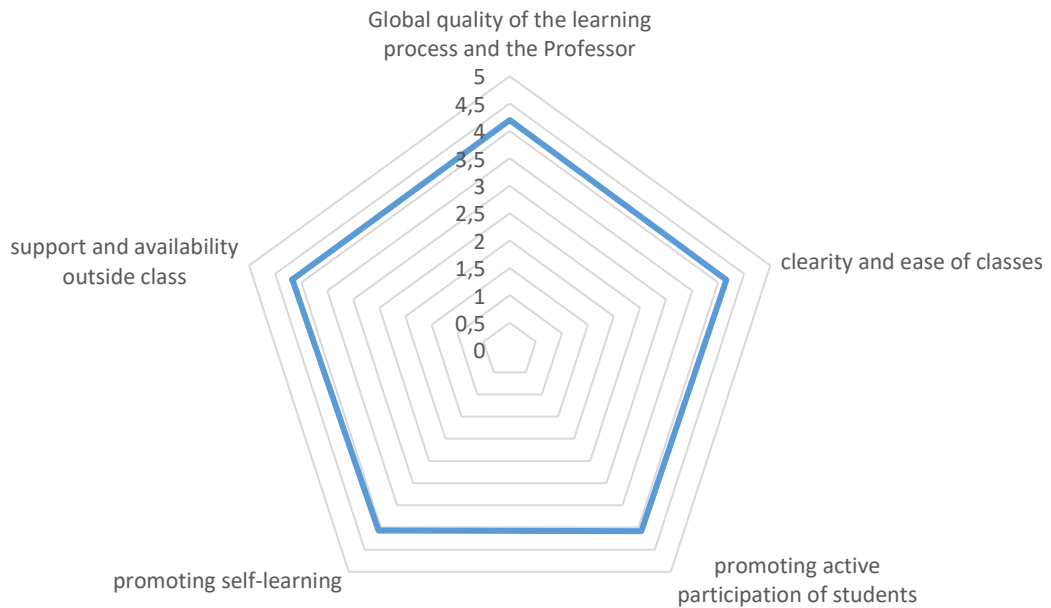
2013 – 2021. “Behavioral Neuroscience” – Main Professor and sole coordinator. Compulsory course in the Integrated Masters in Psychology (BA level) at the Faculty of Psychology and Educational Sciences of the University of Coimbra.

Below I present the available student ratings for the course. Note that from 2018 onwards (when I obtained my ERC), I started to teach fewer classes and those classes were taught by individuals working at my lab and in English – this may have led to a decrease in my overall rankings. Note also that in the academic year of 2017/2018, I was on Leave of Absence.

Student evaluation of the course



Average student evaluation of the course



- 2011 – 2012 “Foundations of Cognitive Psychology” – I collaborated with the course. Compulsory first year course of the Integrated Master’s in Psychology of the Faculty of Psychology of the University of Lisbon.
- 2012 “Neuroscience of the Psychological Processes I”. Co-coordinator of the course. Compulsory first year course of the Integrated Master’s in Psychology of the School Psychology of the University of Minho.
- 2011 – 2012 “Neuropsychology Laboratory”, main Professor and sole Coordinator. Elective course of the Integrated Master’s in Psychology of the School Psychology of the University of Minho.
- 2009 “Unconscious Processing in Vision and Action Psychology” – Course 2185. Teaching assistant at the Department of Psychology at Harvard University.

9.2 At the Master’s level

- 2023 – present “Advanced Seminars in Psychology”. Co-Coordinator of the course. Compulsory course of the Master’s in Psychological Sciences at the Faculty of Psychology and Educational Sciences of the University of Coimbra.

- 2023 – present “Science Management and Funding Procurement”. Coordinator of the course. Compulsory course of the Master’s in Psychological Sciences at the Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2020 – present “Neuropsychology and Neuroethics”. Collaborator in the course. Compulsory course of the Master’s in Molecular and Translational Neuroscience at the Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2020 – present “Neuroimaging Techniques for Cognitive Neuropsychology”. Coordinator of the course. Compulsory course of the Master’s in Clinical Neuroscience: Assessment and Rehabilitation. at the Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2019 – 2022 “Cognitive, Emotional and Social Neuroscience”. Coordinator of the course. Compulsory course of the InterUniversity Master’s in Clinical and Experimental Neuroscience at the Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2019 – 2022 “Research Methods in Neuropsychology”. Collaborator in the course. Compulsory course of the InterUniversity Master’s in Clinical and Experimental Neuroscience at the Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2019 – 2022 “Experimental Neuropsychology – Major Rotation”. Collaborator in the course. Compulsory course of the InterUniversity Master’s in Clinical and Experimental Neuroscience at the Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2019 – 2022 “Experimental Neuropsychology – Minor Rotation”. Collaborator in the course. Compulsory course of the InterUniversity Master’s in Clinical and Experimental Neuroscience at the Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2011 – 2012 “Cognitive Science”. Collaborator in the course. Unidade Curricular “Ciência Cognitiva”. Compulsory course of the Master’s Cognitive Science of the University of Lisbon.

9.3 At the Doctoral level and advanced training

- 2022 – present “Research Methodologies in Design”. Collaborator in the course. Compulsory course of Doctorate in Computational Media Design, University of Coimbra.
- 2020 – present “Cross-sectional scientific skills”. Collaborator in the course. Compulsory course of Doctorate in Psychology at the Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2016 1st course for Neurology Interns. Portuguese Neurology Society. Guest lecturer.
- 2014 1st Course on Neuropsychological Assessment, Faculty of Medicine of the University of Lisbon. Guest Lecturer.
- 2014 – 2018. “*Principles and Practice of Clinical Research*”. Harvard Medical School.
- 2011 – 2012 “Cognitive Science”, Collaborator in the course. Compulsory course of Doctorate in Cognitive Science at the University of Lisbon.
- 2011 “Topics of Experimental Psychology”, Collaborator in the course. Compulsory course of Doctorate in Basic Psychology of the University of Minho.
- 2011 “Cognitive Neuroscience” Collaborator in the course. Elective course of Doctorate in Medicine of the University of Lisbon.

9.4 Awards

- 2017 Invited to participate in the project *Ped@ES – Pedagogia no Ensino Superior* (Pedagogy in higher education). Professors are invited if they are deemed by the students and colleagues to be excellent teachers.

10. SUPERVISION AND GUIDANCE ACTIVITIES

One of the aspects that has been central to my career, and to which I dedicate a large part of my time, is the supervision of young researchers in training. This was already a major part of my work during my PhD and has become even more central with time, as I become an independent researcher and currently as the founder and Director of the Proaction Laboratory.

I have supervised 13 Post-Doctoral fellows (7 on-going), 8 Doctoral students (3 on-going), 14 Master students (3 on-going), more than 15 pre-doctoral research assistants (5 on-going) funded by projects where I am a PI or Co-PI, and a large number of undergraduates and research assistants.

Importantly, many of my supervisees have been highly successful in securing positions and grants in academia. Several of my current and former Post-Doctoral fellows have obtained high-level positions. For instance, Dongha Lee is now a Professor at the Korea Brain Research Institute, Daegu; Fernando Ramirez is now a research scientist at the Laboratory of Brain and Cognition, National Institute of Mental Health; and Fredrik Bergström and Jon Walbrin are now hired under competitive Individual grants from Fundação para a Ciência e a Tecnologia (FCT; CEECIND). Moreover, all of my former PhD students have secured independent positions. Silvana Lopes Costa (my first PhD student) is now a Research Scientist at the Kessler Institute in New Jersey, and has already obtained a series of prizes (include the J Lawton Smith, MD prize); Ana Ganho is now a Post-Doctoral fellow with an FCT individual grant (CEEC); Lénia Amaral, is currently a Post-Doctoral researcher at Georgetown with Ella Striem-Amit; Daniela Valério has just accepted a Post-Doctoral position with Stanislas Deheane. Finally, many of my former undergraduate and research assistants have also gone on to start PhD in important departments. For instance, Brandi Newell became a PhD student at the Psychology Department at Harvard, Philipp Seidel is now a PhD student at the University of Regensburg, Ananda Zeas is a PhD student at the Universty of Granada, and Giuliana Giorjiani is a PhD student at the Ernst Strüngmann Institute. Below is a full list of supervisees.

10.1 Supervision of Post-doctoral researchers

- 2021 – present Irem Yildirim, PhD. Hired under the ERC ContentMAP. Works on issues of conceptual representation and computational methods.
- 2021 – present Leyla Caglar, PhD. Joint fellow with Bradford Mahon at Carnegie Mellon University and the ERC ContentMAP. Works on issues of conceptual representation and dimensionality reduction.
- 2020 – present Gabriel Besson, PhD. Hired under FCT project grants and under the ERC ContentMAP. Works on issues of conceptual representation and temporal processing of objects.
- 2019 – 2023 Artur Pilacinski, PhD. Hired under FCT project grants. Works on issues of robot collaboration (COBOTS), eyetracking, motion tracking and virtual reality. Currently a Post-Doctoral fellow at the University of Bochum, Germany.
- 2019 – present Zohar Tal, PhD. Hired under the ERC ContentMAP. Works on issues of neural topography and conceptual representation.
- 2019 – present André Peres, PhD. Hired under a Foundation for Science and Technology grant to CINEICC. Works on issues of memory processing in the elderly, and functional and behavioral biomarkers of dementia.
- 2019 – present Jonathan Walbrin, PhD. Hired under the ERC ContentMAP, currently has an Individual and independent Cotrtract from the foundation of Science and Technology. Works on issues of conceptual representation and neural circuitry. Currently holds an individual grant from FCT (CEEC-Individual).
- 2017 – 2018 José Bourbon-Teles, PhD. Worked on structural connectivity in aging.
- 2016 – present Fredrik Bergstrom, PhD. Hired under FCT project grants. Works on the interface between manipulable object recognition and our interactions with objects, using advanced neuroimaging analytical pipelines (e.g., RSA; MVPA and Machine Learning). Currently holds an individual grant from FCT (CEEC-Individual).

- 2016 – 2021 Qasim Bukhari, PhD. Works on structural and functional connectivity in special populations (namely the congenitally deaf and the elderly).
- 2016 – 2019 Dongha Lee, PhD. Hired under FCT project grants. Worked on issues related with the organization of object knowledge in the brain, and advanced neuroimaging analytical pipelines (e.g., RSA; MVPA and Machine Learning). Currently a Professor at the Korea Brain Research Institute, Daegu.
- 2016 – 2018 Ana Ganho-Ávila, PhD. Hired under an FCT grant. Worked on aspects of fear memory and learning. Currently holds an individual grant from FCT (CEEC-Individual).
- 2015 – 2016 Fernando Ramirez, PhD. Hired under FCT funds to CINEICC. Worked on aspects related with neural representations and multivariate analysis. Currently a researcher at the Laboratory of Brain and Cognition, National Institute of Mental Health.

10.2 Supervision of Doctoral Students

Concluded

- 2023 Daniela Valério (Doctoral Fellowship SFRH/BD/137737/2018). Thesis title: “The role of object similarity in the organization of information about manipulable objects”. University of Coimbra. Main Supervisor.
- 2023 Giuseppe Cammarata. Thesis Title: “Neurodevelopment effects of valproic acid exposure in human brain organoids”. University of Coimbra. Co-supervisor.
- 2022 Lénia Amaral (Doctoral Fellowship SFRH/BD/114811/2016). Thesis title: “Uncovering the interaction between hands and tools. Are these categories dissociable?”. University of Coimbra. Main Supervisor.
- 2016 Ana Ganho-Ávila (Doctoral Fellowship SFRH/BD/80945/2011). Thesis title: “Psychological, neurobiological and behavioral mechanisms of the fear response”. University of Minho. Co-supervisor.

2013 Silvana Maria Lopes da Costa (Doctoral Fellowship SFRH/BD/45591/2008). Thesis title: “Visual processing speed deficits in Multiple Sclerosis”. University of Minho. Co-supervisor.

On-going

2021 – present Miguel Baião (Doctoral Fellowship 2022.12235.BD). Project title: “Spatiotemporal understanding of the organization of object knowledge in the brain”. University of Lisbon.

2021 – present Filipa Sotero (MD/PhD). Project title: “Apraxia and object processing”. University of Lisbon.

2018 – present. Stephanie Kristensen (Doctoral Fellowship SFRH/BD/145218/2019). Project title: “The Neural Organization of Object Knowledge”.

10.3 Supervision of Master Students

Concluded

2023 Maria João Matos. Thesis title: “Thinking eyes - porque mexemos os olhos quando pensamos?”. University of Coimbra.

2023 Francisco Fortes. Thesis title: “The effects of Semantic Distance in Object Recognition: A feature-based and behavioral approach”. University of Coimbra.

2022 Joana Sayal. Thesis title: “Cross-modal plasticity in the auditory cortex of the congenitally deaf: an fMRI study using population receptive field analysis”. University of Coimbra.

2020 Sara Ferreira. Thesis title: “Neural mechanisms underlying processing speed in healthy older adults”. University of Coimbra.

2017 Daniela Valério. Thesis title: “A Double Dissociation between Acting on and Knowing How to Act on Tools”. University of Coimbra.

2016 Joana Filipa Nogueira Vasco. Thesis title: “Clinical Validation of Alzheimer’s Disease Assessment Scale – Cognitive sub-scale (ADAS-Cog) – for the Portuguese population”. University of Coimbra.

- 2016 Andreia Raquel Freixo Rodrigues. Thesis title: “Domain-specific functional organization: neurocognitive characterization of a case of hemi-prosopometamorphopsia”. University of Coimbra.
- 2015 Carola Canella. Thesis title: “Representational similarity space for tools”. Università Degli Studi Di Trieste.
- 2014 Lénia Amaral. Thesis title: “Volumetric analysis of cortical and subcortical regions in congenital deafness”. University of Minho.
- 2014 Gonçalo Nunes. Thesis title: “Visual Processing in the periphery and fovea in congenitally deaf individuals”. University of Lisboa.
- 2013 Aleksandra Krystyna Dziuba. Thesis title: “The role of elongation in visual manipulable object recognition”. University of Lisboa.

On-going

- 2022 – present Ema Leitão. Thesis on-going. Working on object processing.
- 2021 – present Guilherme Silva. Thesis on-going. Working on robot-human interactions.
- 2021 – present João Pottes. Thesis on-going. Working on eye movements and object grasping.

10.4 Other supervisions

- 2013 – present Supervision of junior researchers (research assistants) in my laboratory supported by scholarships under projects where I am a PI or a Co-PI: Stephanie Kristensen, Lénia Amaral, Joana Nogueira, Fan Zhang, Raquel Guiomar, José Bourbon-Teles, Qasim Bukhari, Ana Rita Martins, Francisco Forte, Giuliana Giorjiani, Philip Seidel, Guilherme Schu, Morteza Mahdiani, Ana Fernanda Ponce Martínez, Igor Vaz Sousa, Stela de Haan, Marija Tohadse, Akbhar Hussain, Maria Melo, Nikita Soussonov.

- 2013 – present Supervision of junior researchers (research assistants) in my laboratory under a volunteer status and under research courses and lab stays: Ana Cláudia Nogueira, Ana Rente, Ana Sofia Santos, Andreia Máximo, Brígida Caiado, Carla Ventura, Catarina Chaves, Daisy Lameira, Daniela Aniceto, Daniela Sousa, Jéssica Lopes, Joana Antunes, Joana Costa, Joana Nogueira, João Mena, Marco Fernandes, Sara Santos, Sofia Costa, Telma Guedes, Tiago Gonçalves, Carola Canella, Andreia Freixo, Daniela Valério, Rui Venâncio, Sara Ferreira, Bruna Branco, Mariana Saraiva, Joana Sayal, Carolina Silva, Bianca Gerardo, Inês Duarte, Mariana Dias, Carolina Artiaga, Marcela Aparício, Mónica Spínola, Francisca Alves, Júlia Cipriano, Ema Sousa, Marisa Lima, Bernardo Baptista, André Silva, Rita Leite Bárbara Azevedo, Ananda Zeas, Jade Minders, Adinda Winderickx, Ema Leitão, Patricia Frazão, Patricia Fernandes, Gabriella Andrietti, Sara Scalletti, Daniela Sistelo, Bernardo Baptista, Inês Duarte, Francesca Gaiti, Patrícia Coelho. These are/were students at the University of Coimbra, mainly from the BSc and MSc in Psychology, but also other BSc within the University.
- 2011 – 2015 Supervision of junior researchers (research assistants) at the University of Lisbon: Gonçalo Nunes, Aleksandra Dziuba, Tiago Cabaço. BSc and Msc students in Psychology at the University of Lisbon.
- 2011 – 2013 Supervision of junior researchers (research assistants) at the University of Minho: Lénia Amaral, Janete Sequeira da Silva. BSc and Msc students in Psychology at the University of Minho.
- 2005 – 2011 Supervision of junior researchers (research assistants) at Harvard University: Brandi Newell (then became a PhD student at Psychology Department, Harvard University), Lukas Strnad, Veronica Zapater, Andrew Kennard. Psychology BA students, Department of Psychology, Harvard University.

11. PEDAGOGICAL MATERIALS PRODUCED

One of the aspects that has guided my teaching career since I joined the Faculty of Psychology and Educational Sciences of the University of Coimbra has been the study and understanding of possible pedagogical strategies that bring me closer to what are my goals – active learning and the promotion of critical reasoning in my students.

The implementation of these pedagogical ideas is rooted in the current understanding of what are the most important competencies to promote in a Psychology course. These skills seem to be dexterity in analytical and critical thinking, the aptitude for integrating learned information with other concepts, learning, and types of information, and a strong communication skills. Similarly, the existence of moments of active learning in the curriculum of a course is an important factor for students to feel involved in the learning process – it is these moments that convey to the student the pedagogical emphasis on understanding concepts and not simply on their passive passage from the teacher to the student. It is therefore necessary to teach critical thinking explicitly and consciously, namely through active learning techniques. In part, this explicit learning involves instilling in the student the need to always evaluate the information s/he receives, collecting other information, discussing its reliability and credibility, creating hypotheses, etc. These core competencies have guided my teaching activity in my curricular units. For example, students are encouraged to distinguish facts from opinions, and even to distinguish what is data and facts of science from what is my opinion, as a teacher and researcher. On the other hand, students are encouraged to continually intervene through the use of the Socratic method, class discussion, and intellectual "provocation" to bring students to the center of learning and discussion.

Another aspect that I have sought to deepen at the level of my teaching is the understanding of the role of courses related to the sub-area of Cognitive Neuroscience in a Psychology degree. I believe, and I think it is a consensual understanding, that neurosciences are the (or at least one of) the paradigm(s) that currently governs the Psychological Sciences. The *decades of the brain* will continue to extend temporally, and it is up to Psychology to take its place as a guideline, as a central discipline. To do this, we, psychologists, need assimilate the neurosciences into our programs. Thus, it is also the understanding of the need to discuss with students and lead them to understand the

importance of neurosciences in Psychology that has led me to innovate and achieve levels of excellence in my teaching activity.

11.1 Course reports

2019 Report of the course “Behavioral Neuroscience”.

12. PEDAGOGICAL PROJECTS

The transformative effort that I tried to implement at the universities that I worked with is one of the most important elements of my *Curriculum Vitae*. Specifically, I have been continuously trying to understand how I can change current pedagogical proposals, or create new ones, in order to guarantee my students a training offer that is of excellence and that provides the necessary skills and competences to succeed. The courses of “Neuropsychology”, “Behavioral Neuroscience”, “Cognitive Neuroscience” and “Advanced Topics in Cognitive Neuroscience” are excellent examples of this transformative effort, having undergone several innovations both in terms of the content to be learned, as well as, and in particular, the emphasis on critical thinking skills and active learning, in the focus on active participation, and understanding how to learn.

In addition to these pedagogical innovations in individual courses, I was the coordinator (and co-founder) at the University of Coimbra, as well as the overall coordinator across 3 higher education institutions, of the Inter-university Master's Degree in Clinical and Experimental Neuropsychology. In Portugal, training programs for neuropsychologists that allow clinical training in neuropsychological assessment and rehabilitation skills simultaneously with training in systematic research methodologies in neurosciences are still incipient. The goal of this master's degree, shared between the Universities of Coimbra, Minho, and Lisbon, was to train psychologists with a solid training and basic and applied knowledge of clinical and cognitive neurosciences that allow the definition of a professional profile for a career in experimental neuropsychology research and/or practice in clinical neuropsychology. Importantly, this pedagogical project included not only the creation and coordination of the master's degree, but also the creation and coordination of several courses. Moreover, I have also co-founded the new Master's in Psychological Sciences at the University of Coimbra. This is the only research only master's program at the faculty of Psychology and Educational Sciences of the University of Coimbra.

In addition to these more formal projects, I have been creating since 2013 a set of mini-workshops – or mini-laboratory units – open to the community that aim to provide a more international and specific training offer that is difficult to find in Portugal.

Finally, my participation in the Ped@ES project is clearly a way to modify the teaching-learning process, as described in previous sections, and to provide new teachers with tools that allow them to reach levels of excellence in teaching.

12.1 Pedagogical innovation

- 2022 Creation and Co-Coordination of a new Master’s degree – the Master’s in Psychological Sciences. Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2019 Organization of the international Workshop CRANIO (Coimbra Regensburg Advanced NeuroImaging Workshop).
- 2019 Creation and Co-Coordination of a new Master’s degree – the Interuniversity Master’s in Clinical and Experimental Neuropsychology. Faculty of Psychology and Educational Sciences of the University of Coimbra (this Master’s also includes The Universities of Minho and Lisbon).
- 2013 – present Organization of mini-courses at the Proaction Lab on topics that are central for Psychology and Cognitive Neuroscience, focusing on neuroimaging software, programming, TMS and tDCS, etc.
- 2013 Restructuring of the courses “Neuropsychology” and “Behavioral Neuroscience”.
- 2011 Restructuring the course “Neuropsychology Laboratory”.

13. ACTIVE PARTICIPATION IN THE COMMUNITY WITHIN AND OUTSIDE THE UNIVERSITY

My *Curriculum Vitae* shows that I have had an active intervention in the university community or outside the university also at the level of pedagogical activity. Specifically, I was part of the jury of several PhD and Master's academic exams in several Portuguese universities. I have also promoted a series of *workshops* open to the community, as described in the previous section. These *workshops* are precisely intended to intervene in the scientific community and internationalize the training offer. In addition to the more formal workshops, I also promoted a series of lectures open to the public and given by researchers who are of excellence at an international level, such as Dr. Alfonso Caramazza, Dr. Glyn Humphreys, Dr. Irving Biederman, Dr. Jody Culham, or Dr. Serge Dumoulin. Finally, my participation in the project is Ped@ES itself an intervention in the community at the level of pedagogical activity, as described in the Teaching *Activity* section. This project aims to provide future teachers with a set of tools used by teachers considered exemplary by peers and students.

13.1 Participation in doctoral thesis committees

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| 2021 | Committee member of the Doctoral defense of Rita Passion. Thesis title: "RDoC'ing the Internalizing-Externalizing Spectrum: towards empirically-based models of psychopathology". School of Psychology, University of Minho. |
| 2019 | Committee member of the Doctoral defense of Ana Francisca Palenciano Castro. Thesis title: "Neural Bases for the implementation of instructions". University of Granada. |
| 2019 | Committee member of the Doctoral defense of Farid Pazhoohi. Thesis title: "Behavioral and Neurophysiological correlates of Physical Attractiveness". School of Psychology, University of Minho. |
| 2018 | Committee member of the Doctoral defense of Paulo Ricardo Baptista Siva Branco. Thesis title: "Examining the feasibility and validity of |

- resting-state functional magnetic resonance imaging for language presurgical planning”. Faculty of Medicine of the University of Porto.
- 2016 Committee member of the Doctoral defense of Raquel Maria Baptista de Lemos Guerra de Oliveira. Thesis title: “Verbal Memory and Visual Perception in early Alzheimer’s disease: Contribution of new diagnostic tools for new classification criteria”. Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2015 Committee member of the Doctoral defense of Cátia Alexandra Pereira Gonçalves. Thesis title: “Diferenciação do funcionamento mnésico na demência vascular subcortical e na doença de Alzheimer: Um estudo com a WMS-III”. Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2015 Committee member of the Doctoral defense of Ana Luísa Grilo Pinho. Thesis title: “Inside of the Creative Mind: Unravelling the Neurocognitive Mechanisms of Musical Creativity”. Faculty of Medicine of the University of Coimbra.
- 2014 Committee member of the Doctoral defense of Clédna Patrícia de Oliveira Silva. Thesis title: “The Neuropsychophysiological basis of empathy”. School of Psychology, University of Minho.
- 2014 Committee member of the Doctoral defense of Jorge Evandro de Araújo Alves. Thesis title: “Neurocognitive profile and cognitive intervention in Alzheimer's disease”. School of Psychology, University of Minho.
- 2013 Committee member of the Doctoral defense of Bruno Armando Aragão Henriques. Thesis title: “Temporal Integration in the perception of biological motion”. School of Psychology, University of Minho.
- 2011 Committee member of the Doctoral defense of Maria Inês Neto Bramão. Thesis title: “The contribution of color during object recognition: behavioral, electrophysiological and neuroimaging evidence”. Faculty of Social Sciences and Humanities of the University of the Algarve.

13.2 Participation in master thesis committees

- 2023 Chair of the committee of the Master’s defense of Sara Oliveira. Thesis title: “The effect of physical activity on pupil-linked arousal responses associated with decision uncertainty and feedback processing in older adults”. Faculty of Sciences of the University of Coimbra.
- 2023 Chair of the committee of the Master’s defense of Gonçalo Filipe Almeida Santos. Thesis title: “A study of cortical mechanisms for solving ambiguity using non-invasive human electrophysiology”. Faculty of Sciences of the University of Coimbra.
- 2023 Chair of the committee of the Master’s defense of Sarah Ferreira Sartor. Thesis title: “Functional connectivity of sensory networks at rest and the relationship with sensory profiles in Autism Spectrum Disorder”. School of Psychology of the University of Minho.
- 2022 Chair of the committee of the Master’s defense of Jade Zinder Manders. Thesis title: “Impact of Inhibitory Control Training on the Emotional Regulation of Individuals with Alexithymic Symptoms”. Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2015 Committee member of the Master’s defense of Rita Alexandre Figueira Belo. Thesis title: “Reinforcement learning across development in humans”. Faculty of Medicine of the University of Lisbon.
- 2011 Committee member of the Master’s defense of Diana Orghian. Thesis title: “Dimensões estruturais dos objectos: do reconhecimento a nomeação”. Faculty of Psychology of the University of Lisbon.

13.3 Participation/organization of Conferences and Workshops

- 2023 – present Organization of the [Seeing and Acting Workshop \(SAW\): Functional and Neural perspectives](#). Annual workshop with about 100 participants. Faculty of Psychology and Educational Sciences of the University of Coimbra.

- 2023 – present Organization of the Seminar in Psychology/Innaugural Lecture of CogBooster. Invited Speaker – Alfonso Caramazza. Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2021-2022 Main organizer of the conference series “[New Interdisciplinary Horizons in Psychological Research Series](#)” funded by IBRO (national newspaper selected [news](#) on the event). Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2019 Proaction Lab inaugural talk. Invited speakers Alfonso Caramazza e Óscar Gonçalves. 25 de Junho de 2019. Inauguração do Proaction Lab. Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2016 Invited speaker: Jody Culham. “*On the use of Brainvoyager*”. Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2015 Invited speaker: Ben Harvey. “*Investigating cognitive processing with population receptive fields: effects of attention and topographic maps of quantities*”. Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2014 Invited speakers: Angelika Lingnau e Jens Schwarzbach. “*The basics of Neuroimaging analysis*”. Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2014 Invited speaker: Serge Dumoulin. “*Visual neuroscience: understanding visual perception*”. Faculty of Psychology and Educational Sciences of the University of Coimbra.
- 2013 Invited speaker: Jason Friedman. “*Using arm movements to detail the timing of cognitive processes*”. Faculty of Psychology of the University of Lisbon.
- 2012 Invited speaker: Irving Biederman. “*The Neural Basis of Perceptual and Cognitive Pleasure and the Brain*”. Faculty of Psychology of the University of Lisbon.
- 2012 Invited speaker: Gabriel Kreiman. “*How Neuroscience can help Epilepsy*”. NEURO 2012, Porto.
- 2012 Invited speaker: Glyn Humphreys. “*The role of stored knowledge on visual binding*”. Faculty of Psychology of the University of Lisbon.

2010 Invited speaker: Alfonso Caramazza. “*Concepts, Actions and Objects: Organization and Content in the Brain*”. Faculty of Psychology of the University of Lisbon.

13.4 Participation in non-scientific academic committees and councils

2023 President of the search committee for the call for applicants above 23 years old for the BAs in Psychology, Educational Sciences and Social Service of the Faculty of Psychology and Educational Sciences of the University of Coimbra.

2023 Member for the search committee for an Assistant Professor in the area of Psychology, subarea of Cognitive Neuroscience, for the Faculty of Psychology and Educational Sciences of the University of Coimbra, call number IT136-23-12844.

2021 Member for the search committee for an Assistant Professor in the area of Basic Psychology for the School of Psychology of the University of Minho, call number 1261/2020.

2021 Member for the search committee for an Assistant Professor in the area of Basic Psychology for the School of Psychology of the University of Minho, call number 288/2021.

2013 – present Chair of several search committees for Post-Doctoral, Doctoral and Research assistant positions

2000 – 2001 Member of the Senate of the University of Lisbon – student representative.

2000 – 2001 Member of the pedagogical council of Faculty of Psychology of the University of Lisbon – student representative.

1999 – 2001 Member of the students Association of Faculty of Psychology of the University of Lisbon.