UNIVERSIDAD
DE GRANADA

STUDENTS' GUIDE
2022-2023

Guide to the official master program in Cognitive and Behavioral Neuroscience

In this guide you will find detailed information about our master's program. The Master in Cognitive and Behavioral Neuroscience aims to train students in research relative to cognitive functions and their neural basis. **The whole program is research-oriented**, and it also provides its graduates the tools that facilitate their job placement in the field of neuropsychology and other applied fields related to neuroscience.

The program is aimed at graduates in Psychology or related disciplines. Selected students with a specific interest in neuropsychology will be given the opportunity to follow the **neuropsychology itinerary**, requiring the compulsory completion of courses related to this field and practical training in neuropsychology clinics.

Official Website:

http://masteres.ugr.es/neurocg/

Facebook:

https://www.facebook.com/MasterNCCUGR/

Sections

Credit's Distribution in the master

The master's degree consists of 60 ECTS, are distributed as follows:

- A minimum of 8 ECTS of courses of the METHODOLOGICAL Module.
- A maximum of 20 ECTS from the rest of the COGNITIVE AND BEHAVIORAL NEUROSCIENCE Module
- 5 ECTS of the course CURRENT PERSPECTIVES IN PSYCHOLOGY AND NEUROSCIENCE
- 15 ECTS of PRACTICAL TRAINING (RESEARCH OR NEUROPSYCHOLOGY INTERNSHIPS)
- 12 ECTS of the FINAL MASTER'S THESIS

The students following the Neuropsychology Itinerary must compulsorily enroll in the following courses: Neuropsychological Assessment, Neuroanatomy and Functional Neuroimaging, Neuropsychology and Developmental Neuropsychology, as well as in the Neuropsychology internships in clinical Neuropsychology centers.

A course from some other official Master program can be chosen, which requires authorization from the Academic Committee of the Master.

PLEASE NOTE THAT, TO FOLLOW THE NEUROPSYCHOLOGY ITINERARY, YOU MUST BE A NATIVE SPANISH SPEAKER, OR AT LEAST TO CERTIFY SPANISH LANGUAGE SKILLS PROFICIENT ENOUGH TO INTERACT WITH NEURPSYCHOLOGICAL PATIENTS AND THEIR FAMILIES (LEVEL C).

Accordingly, most information in this guide regarding the Neuropsychology itinerary will be in Spanish.

Double Degree with the Master in Cognitive Neuroscience and Clinical Neuropsychology of the University of Padova (Italy)

In 2019, the Master of Cognitive and Behavioral Neuroscience of the University of Granada and the Master in Cognitive Neuroscience and Clinical Neuropsychology of the University of Padova (https://bit.ly/3eLxcZj) established a double degree agreement, within the framework of the Arqus European University Alliance (https://www.arqus-alliance.eu/).

On the basis of this agreement, five incoming and five outgoing students each year will be given the opportunity to obtain both degrees (60 + 120 ECTS) in four semesters (two academic years), distributed between both institutions. The stay in Padova will be covered by an Erasmus exchange scholarship. The MNCC of the UGR will offer the courses included in the double degree in English (a second group in Spanish will be always available for such courses).

In this double degree itinerary, the UGR students complete a first semester in Granada (October-February), the following two in Padova (March-February) and finish with the internship and Final master's thesis in Granada. On the other hand, Padova students stay a first year at their home university and the next, in full, in Granada.

To apply for this double degree as a UGR student, you must first request access and obtain a place in the Master of Cognitive and Behavioral Neuroscience. The application to pursue the double degree and the associated Erasmus scholarship needs to be made once the academic year has started, and the selection will be made on the basis of objective academic criteria. The coordination of the master will inform the students of all the details and deadlines.

Further information, together with the detailed regulations of the agreement can be found here: https://bit.ly/3eLNSjj

Calendar and timetables

Courses named in Spanish will be taught in that language. Courses named in English will be offered in English (Group A) and a Spanish (Group B).

First period: October 3th – November 25th, 2022 (Exams: Nov 27th – Dec 1st)

	FIRST PERIOD				
	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
9:00-10:50	Neuroanatomy & Neuroimaging A/B A.inf. 4/aula a03	Memory A/B Seminario 3/Seminario 4	Plasticidad Seminario 3	Regulación neuro-inmunoendocrina Seminario 4	Aprendizaje Seminario 2
11:00-12:50	Regulación neuro-inmunoendocrina Seminario 4	Neuroergonomía Seminario 3	Aprendizaje Seminario 2	Memory A/B Seminario 3 /Seminario 4	Methods A/B Seminario 3/Seminario 4
15:00-16:50	Evaluación neuropsicológica Seminario 3/Seminario 2	Plasticidad Seminario 3	Neuroanatomy & Neuroimaging A/B A.inf. 4/aula a03	Methods A/B Seminario 3 /Seminario 4	This slot is flexibly reserved for seminars offered as part of the Current Perspectives in Psychology and Neuroscience course
17:00-18:50	Evaluación neuropsicológica Seminario 3/Seminario 2	Emoción Seminario 4	Neuroergonomía Seminario 3	Neuroergonomía Seminario 3	

Second period: January 9th – March 3th, 2023 (Exams: March 5th-9th)

	SEGUNDO PERIOD				
	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
9:00-10:50	Lenguaje Seminario 4	Cognitive Neuroscience A/B Seminario 3/Seminario 4	Developmental Neuropsychology Seminario 3/Seminario 4	Diseño experimental avanzado A.inf.3	Judgment and decision making B Seminario 4
11:00-12:50	Developmental Neuropsychology Seminario 3/Seminario 2	Attention A/B Seminario 3/Seminario 4	Modelos animales Laboratorio/Aula 08 Neuropsicología A/B Seminario 3/ Seminario 2	Percepción Seminario 3	Cognitive Neuroscience A/B Seminario 3/ Seminario 4
15:00-16:50	Modelos animales Laboratorio/Aula 08 Neuropsychology A/B Seminario 3/ Seminario 2	Judgment and decision making A Seminario 4	Judgment and decision making B Seminario 4	Attention A/B Seminario 3/Seminario 2	This slot is flexibly reserved for seminars offered as part of the Current Perspectives in Psychology and Neuroscience course
17:00-18:50	Diseño experimental avanzado A.inf.3	Percepción Seminario 3	Lenguaje Seminario 4	Judgment and decision making A Seminario 4	

Exams

First period: : Nov 27th – Dec 1st, 2022

	FIRST PERIOD				
	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
9:30-13:30	Neuroanatomy & Neuroimaging A/B A.inf. 4/aula a03	Memory Seminario 3/Seminario 4	Methods A/B Seminario 3/Seminario 2	Regulación neuro-inmunoendocrina Seminario 4	Aprendizaje Seminario 2
15:30-19:30	Evaluación neuropsicológica Seminario 3/Seminario 2	Plasticidad Seminario 3	Neuroergonomía Seminario 3	Emoción Seminario 2	

Second period: March 5th-9th, 2023

	SECOND PERIOD				
	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
9:30-13:30	Lenguaje Seminario 4	Cognitive Neuroscience A/B Seminario 3/Seminario 4	Developmental Neuropsychology Seminario 3/Seminario 4	Diseño experimental avanzado A.Inf.3	Judgment and decision making A/B Seminario 3/Seminario 4
15:30-19:30	Neuropsicología A/B Seminario 3/Seminario 4	Percepción Seminario 3	Modelos animales Seminario 3	Attention A/B Seminario 3/Seminario 4	

Exams of the Extraordinary call: September 4th – 8th, 2023 (the weekday and time slots remain the same as in the Ordinary Call)

Students' representative

According to the current regulations, a students' representative will be appointed to belong to the Academic Committee of the master's degree. The election of the representative must take place before the 1st of November, 2022.

Regulations

This master, as the rest of the official masters offered by the University of Granada, is considered an official one and is thus adapted to the European Credit Transfer System (ECTS) since the 2010/2011 academic year. Hence, a series of regulations have been put in place to guarantee the rights of the students. These regulations can be found here: https://bit.ly/3eL9yvV.

The regulations related to the internship, credit recognition, permanence norms, and final dissertation guidelines are of core importance. These guarantee the students' right to have two (Ordinary and Extraordinary) calls per course in each academic year, including the Final Master's Thesis (TFM). Once these calls are spent, students must enroll again, but the price per credit in further enrollments is increased.

The completion of your Master's studies in an academic year is important if you want to apply for FPU (or similar) scholarships and to admission to a Doctoral Program. However, **if before the 31st of December a student is aware that s/he will not be able to finish the TFM in the current academic year, they can request the modification of the enrollment and the refund of public prices**, which will allow not spending the two calls for the course, and will thus to avoid the additional costs of a second enrollment in the following course.

In addition, students can change their enrollment (unsubscribe or enroll in master's courses) at no cost, provided that this is done before the third class of the course has taken place.

Key dates

Teaching periods (see p. 11)

- **October 3th – November 25th, 2022.** First teaching period.
- **January 9th – March 3th, 2023.** Second teaching period.
- Exams will take place during the week right after each of these two periods. The extraordinary call for these courses will take place during the week of September 4th – 8th, 2023.

2022

- **September 26nd – 28th, 2022**. Initial meeting with the students.
- **September 30th, 2022.** Opening and welcome event.
- **November 4th, 2022.** Deadline to choose the students' representative.
- **December 2nd, 2022.** Deadline to choose a supervisor for the practical training and Final Master's Thesis.

2023

- **March 13th – June 23th, 2023.** Research or Neuropsychology Internship period.
- **May 5th, 2023**. Delivery of a pre-registration of research or outline of the Master's Final Thesis to the supervisor.
- **July 10th – 14th, 2023**. Final Dissertation defense (Ordinary call).
- **September 12th – 15th, 2023**. Final Dissertation defense (Extraordinary call).

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Máster en Neurociencia Cognitiva
y del Comportamiento

SUPPLEMENTARY COURSES

TALLER DE BÚSQUEDA BIBLIOGRÁFICA (in Spanish)

Dª Camila Molina Cantero, Directora de la Biblioteca de Psicología de la Universidad de Granada, impartirá el ***Seminario sobre búsqueda de información bibliográfica especializa y Gestores de bibliografía*** encaminado a dar a conocer los recursos electrónicos de la Biblioteca Universitaria de Granada y los Repositorios institucionales y buscadores académicos que posibilitan la búsqueda de la información más relevante en Neurociencia. En este Seminario se aprenderá también a utilizar un gestor de bibliografía, mediante la elaboración de una base de datos bibliográfica personal. Todos estos conocimientos serán especialmente útiles en la elaboración de los trabajos monográficos y en el TFM.

TALLERES DE NEUROPSICOLOGÍA (in Spanish)

Durante el curso se realizarán varios talleres formativos de Neuropsicología, que se anunciarán con antelación. Estos talleres tendrán carácter obligatorio para los estudiantes que opten por el itinerario de Neuropsicología, y serán optativos para quienes opten por investigación. A todos los asistentes se les entregará certificado.

ADDITIONAL METHODS COURSES

Usually every year we organize week-long training courses in additional topics that are relevant for research in the field of Cognitive and Behavioral Neuroscience, such as Matlab programming or behavioral and neuroimaging data analysis. These courses will be optional for all students, and attendees will receive a certificate.

FINAL MASTER'S THESIS (TFM)

REGULATIONS OF THE UNIVERSITY OF GRANADA REGARDING THE FINAL MASTER'S THESIS (Approved the 4th of March 2013)

These regulations are to be known by every students, and are available at https://bit.ly/3Bh48VN**.**

TYPES OF FINAL MASTER'S THESIS (TFM) IN THE MASTER IN COGNITIVE AND BEHAVIORAL NEUROSCIENCE

The TFM in our master is research-oriented, and because of this, it provides direct access to the Psychology PhD program. This TFM has two modalities, depending on the itinerary of the student: Research training or Neuropsychology.

Students will receive detailed instructions for each of these two modalities in the PRADO teaching platform. Detailed information can also be obtained from the academic guide of these courses (please see https://bit.ly/3rAc0uE)

The following pages provide a summary of these.

RESEARCH TRAINING ITINERARY AND CORRESPONDING FINAL DISSERTATION

Students must complete 15 ECTS of supervised research and a TFM (12 ECTS). Please check the key dates to be taken into account at p. 15.

Supervised research training procedure

1.- Students must choose a line of research and a supervisor. Usually the supervisor offers the student to work in a line of research that is already in progress. Due to time constraints, the student cannot be asked to do something truly novel or to work on methodologies and procedures that are unfamiliar for the supervisor.

2.- Research credits can be obtained with the completion of a single empirical study.

3.- The research must attest that the students know and are capable of applying some of the tools and methodologies of the field (presentation programs necessary to carry out the experiments, ERPs, Eye Movements, stimulation techniques etc.). The master will support this process with practical seminars of some of these tools (e-prime, SPSS, ERPs or other techniques). Students must enroll in those that are relevant to their research work.

4.- Students should carry out empirical work carried out essentially by them. The supervisor will provide help throughout the process regarding readings choices, investigation procedures, and preparation of final report, but their participation will only be of support. The first authorship of the work will mostly correspond to the student.

5.- In addition to carrying out the research, students are required to attend the seminars and conferences offered in the master. Lack of attendance must be justified and supplemented by substitutive activities.

6.- At the end of the period of investigation, the students must write a report in which they present the results of the empirical study carried out. This will be the Final Master Thesis.

7.- The TFM should have the format of an APA-formatted scientific article with all its corresponding sections, including references.

8.- Students must present and defend orally the results of their research. This oral presentation should last 20 minutes, and it will be followed by questions from the 3 members of the Evaluation Committee, also during 20 minutes.

9.- The evaluation committee will assess the competences acquired by the student during this period, according to the general regulations for the evaluation of competences proposed by the Graduate School.

ITINERARIO DE NEUROPSICOLOGÍA Y TFM ASOCIADO (In Spanish)

Los estudiantes de este itinerario realizarán 15 ECTS de prácticas clínicas en centros concertados de Neuropsicología, y realizarán un TFM de una temática asociada (de marzo a julio/septiembre).

1.- La asignación de estudiantes a las plazas de centros externos se realizará principalmente por el expediente del alumno/a y el CV (que se solicitará para la asignación).

2.- Se asignarán tutores que se encargarán de dirigir las actividades prácticas del alumno/a, así como su evaluación durante las mismas, y la tutorización del TFM.

3.- Las actividades prácticas a realizar serán aquellas descritas en la página web para cada una de las plazas de centros externos.

El TFM de Neuropsicología consiste en realizar una propuesta de investigación clínica en el ámbito neuropsicológico. Esa propuesta de investigación puede obedecer a varios diseños, pero en todo caso deberá contener toda la información sobre 1) la o las hipótesis a corroborar, 2) la descripción detallada de la evaluación a realizar, ya sea en un caso o conjunto pequeño de ellos (diseño de caso único) o en un grupo mayor de ellos (ensayo controlado aleatorizado), 3) las herramientas de intervención, y 4) Los análisis que se realizarían para corroborar esa hipótesis. Se recomienda la asistencia a los talleres metodológicos ofertados por el Máster para más información sobre estos tipos de diseños.

No es necesario aportar datos, ya que el reclutamiento y la recogida de datos en la clínica suele requerir de periodos de tiempo (a veces años) que superarían la duración de las propias prácticas. En general, se espera que las personas que os formáis en la práctica neuropsicológica, sepáis abordar las preguntas que surgen en el trabajo diario con los pacientes con exhaustividad y rigor científico.

CALLS AND DEADLINES

Calls: there are two per academic course, in July (Ordinary call) and September (Extraordinary call). In case of not passing the TFM after both calls, students will have to pay fees in the following academic year, at a higher cost. Please see p. 15 for key dates.

Deadlines: The TFM will be submitted 10 days before its defense. The PDF file of the TFM will be uploaded to the Turnitin platform to evaluate for potential plagiarism. **Plagiarism will automatically invalidate the TFM.**

EVALUATION COMMITTEES

The TFM will be evaluated by a Committee whose members are lecturers from the Master (Research) or lecturers and supervisors from the external Neuropsychology centers (Neuropsychology Itinerary)

RESEARCH ITINERARY:

Committee 1: Alberto Acosta, Isabel de Brugada and Felisa González.

Committee 2: Ángel Correa, Milagros Gallo and José César Perales.

Committee 3: Andrés Catena, Ignacio Morón and Sandra Marful.

NEUROPSYCHOLOGY ITINERARY:

To be assigned

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RESEARCH INTERNSHIP: RESEARCH LINES (2022 – 2023)

Master's Thesis (TFM) Topic of Research

Topic: Characterization of the brain mechanisms of preparation (ref. PID2019-111187GB-I00)

Principal Investigator: María Ruz

Web: www.ugr.es/~mruz/

e-mail: mruz@ugr.es

Room: 315 (Psychology Building)

Brief description of the project:

Preparing in advance for upcoming challenges provides a key behavioral advantage for the efficiency of human behavior across a wide range of contexts. Theoretical models in Cognitive Neuroscience have associated this ability with proactive, top-down endogenous modulation of brain activity. Research indicates that preparation triggers the representation of task goals in high-level associative brain areas, which bias activations in lower-level perceptual regions in anticipation of target presentation. Despite its core importance in cognitive brain functioning, to date we lack an understanding of how these preparatory mechanisms are flexibly tuned to help meet the demands posed by different contexts. The general goal of the current project is to fill this gap by employing cue-target experimental paradigms during functional Magnetic Resonance (fMRI) and Electroencephalographic (EEG) recordings in humans. These experiments will be analyzed with multivariate pattern methods, in combination with classic univariate approaches. With these we will characterize the information contained in preparatory activations linked to contexts of increasing complexity, its temporal dynamics and its relevance for the efficiency of behavioral performance. Overall, results will have a significant impact on the fields of Cognitive Control and Selective Attention, advancing our knowledge about the characteristics of neural endogenous preparatory activity in different contexts.

Representative publications:

López-García D., Sobrado A., Peñalver, J. M. G., Górriz J. M., & Ruz, M. (in press). Multivariate Pattern Analysis Techniques for Electroencephalography Data to Study Flanker Interference Effects. *International Journal of Neural Systems*.

Palenciano A. F., González-García, C., Arco, J. E., Pessoa, L., & Ruz, M. (2019). Representational Organization of

Novel Task Sets during Proactive Encoding. *Journal of Neuroscience, 39*, 8386-8397.

Master's Thesis (TFM) Topic of Research

Topic: Neural mechanisms underlying the influence of prior knowledge on visual perception

Principal Investigator: Carlos González and María Ruz

Web: https://ugr.es/~humneuro/

e-mail: cgonzalez@ugr.es

Room: 303 (CIMCYC)

Brief description of the project:

A fundamental question in neuroscience is how prior knowledge shapes perceptual processing. Perception is constantly informed by internal priors in the brain acquired from past experiences, but the neural mechanisms underlying this process are poorly understood. While knowledge about the world is usually acquired via repeated encounters, the Mooney disambiguation effect is a commonly known example of one-shot perceptual learning. Mooney images are ambiguous two-tone images which are, without additional information, devoid of meaning for the perceiver. However, after a single exposure to the corresponding unambiguous original image, the content of the Mooney images becomes readily available. In previous studies, we have shown the involvement of higher-order brain networks in such disambiguation process, but their specific role remains unknown. In this project, we will further refine behavioral metrics of one-shot perceptual learning recently developed in our lab, with the ultimate goal of combining them with neuroimaging techniques to characterize the contribution of different brain networks.

Representative publications:

González-García, C., & He, B. J. (2021). A gradient of sharpening effects by perceptual prior across the human cortical hierarchy. Journal of Neuroscience, 41(1), 167-178.

González-García, C., Flounders, M. W., Chang, R., Baria, A. T., & He, B. J. (2018). Content-specific activity in frontoparietal and default-mode networks during prior-guided visual perception. Elife, 7, e36068.

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MASTER IN COGNITIVE AND BEHAVIORAL NEUROSCIENCE

Master's Thesis (TFM) Topic of Research

Topic: Characterizing the mechanisms for task coding in novelty scenarios.

Principal Investigators: Ana F. Palenciano and María Ruz

Web: https://wpd.ugr.es/~humneuro/

e-mail: palencianoap@ugr.es, mruz@ugr.es

Offices: 343 and 1 (CIMCYC)

Brief description of the project:

Across our lifespan, humans are able to configure their actions according to a vast (practically infinite) pool of rules and tasks. Such remarkable flexibility leads to the question of how task information is encoded in order to efficiently generate this diverse behavioral repertoire. Previous evidence has highlighted the role of conjunctive coding, a mechanism that generates unique task representations by non-linearly combining their constituent components (i.e.: stimulus, responses, associations between them, etc.), thus facilitating task segregation. Nonetheless, the results obtained so far are based on repetitive experimental paradigms where participants apply a very small set of rules, which are overly practiced. In consequence, is it unknown how conjunctive task representations emerge from scratch in novel situations, or whether the absence of experience leads to different coding mechanisms. The current project aims to fill this gap by developing a paradigm that enables comparing the coding format between novel and practiced tasks. We will obtain behavioral indexes linked in the past with different task coding mechanisms, which are based on the sequential switching costs. Overall, the results obtained will be key to better understand how we deal with novel, changing demands, and more generally, to extend previous models of cognitive flexibility. Furthermore, the data acquired could be the grounds for future neuroimaging (fMRI, EEG) experiments tackling these questions.

Representative publications:

González-García C, Arco JE, Palenciano AF, Ramírez J, & Ruz M. (2017) Encoding, preparation and implementation of novel complex verbal instructions. Neuroimage148, 264-273. https://doi: 10.1016/j.neuroimage.2017.01.037

Palenciano A. F., González-García, C., Arco, J. E., & Ruz, M. (2019). Transient and Sustained Control Mechanisms Supporting Novel Instructed Behavior. Cerebral Cortex, 29(9), 3948–3960, https://doi.org/10.1093/cercor/bhy273

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MASTER IN COGNITIVE AND BEHAVIORAL NEUROSCIENCE

Master's Thesis (TFM) Topic of Research

Topic: Sex hormones, contraceptives, cognitive processes
Principal Investigator: Antonio Bernal Benítez
Web:
e-mail: antoniobernal@ugr.es
Room: 362 (Psychology Building)

Brief description of the project:

In this research line, we study the influence of sex, menstrual cycle and hormonal contraceptives on different cognitive processes (memory, attention, ...). For this purpose, men, and women with a natural cycle during the menstrual, ovulatory or luteal phase and women that use hormonal contraceptives participate in both behavioural and electrophysiological (ERPs) experiments. Additionally, we examine the levels of gonadic hormones (testosterone, estradiol and progesterone) during the performance of the tasks, in order to relate possible behavioural and electrophysiological differences with the influence that these hormones exert on the brain structures responsible for the cognitive processes.

Representative publication:

Bernal, A., & Paolieri, D. (2022). The influence of estradiol and progesterone on neurocognition during three phases of the menstrual cycle: Modulating factors. *Behavioural brain research, 417,* 113593. https://doi.org/10.1016/j.bbr.2021.113593

Master's Thesis (TFM) Topic of Research

Topic: Developmental psychobiology in rodents.
Principal Investigators: Milagros Gallo; Fernando Gámiz
Web: http://neplegroup.com/
e-mail: mgallo@ugr.es
Room: 330 (Psychology Building)

Brief description of the project:

Various behavioral tasks are applied in rodents in order to investigate the effect of the brain organization changes on cognition over the life span, as well as the effect of different treatments at early prenatal/postnatal stages on later life. Among other learning tasks we use taste recognition memory as a choice model to study the brain circuits and molecular mechanisms involved in the neophobic response to the novel taste and its attenuation after repeated presentations. The response to novel and familiar tastes changes along the life thus evidencing different patterns of neural activity, such as those characteristic of adolescence and aging. The proposed project is centered in studying the brain activity related with recognition memory in rats by applying immunohistochemistry techniques to identify the protein c-Fos which is the product of the immediate early gene c-fos expression and a marker of neuronal activity. The project will consist in counting the number of c-Fos positive cells in the already stained available brain sections of either adolescent or aged rats. The additional possibility of participating in ongoing experiments performed by the research team at the Center for Biomedical Reaserch (CIBM. PTS) will depend on the timing and student availability.

Representative publications:

Expósito, A. N., Morillas, E., Gómez-Chacón, B., & Gallo, M. (2020) Prefrontal Cortex Activity Patterns During Taste Neophobia Habituation in Adult and Aged Rats. *Behavioural Brain Research*, 392, 112717. doi: 10.1016/j.bbr.2020.112717.

Gallo, M. (2018). Taste Neophobia over the Life Span (Chapter 3). En S. Reilly (Ed.), *Food Neophobia. Behavioral and Biological Influences* (pp. 25-41). Elsevier: San Diego (USA).

Grau-Perales A., Gómez-Chacón B., Morillas E., & Gallo M. (2019). Flavor recognition memory related activity of the posterior piriform cortex in adult and aged rats. *Behavioural Brain Research*, *360*, 196-201. doi: 10.1016/j.bbr.2018.12.016.

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MASTER IN COGNITIVE AND BEHAVIORAL NEUROSCIENCE

Master's Thesis (TFM) Topic of Research

Topic: Early development of attention and self-regulation
Principal Investigator: Charo Rueda
Web: https://wpd.ugr.es/~labncd/
e-mail: rorueda@ugr.es
Room: 314 (Psychology Building), LabNCD (Lab 24, CIMCYC).

Brief description of the project:

Executive attention (EA) refers to the ability to direct and engage attention according to internal goals or intentions. The first signs of attention control are shown over orientation of attention and are observable from about the second half of the first year of life. Infants are able to disengage attention from an object in order to explore a different object, or to move attention to a location where they expect that something of interest is about to appear. In adults, EA is supported by a network of fronto-parietal structures that are functionally connected. The aim of our research is to trace the early development of this network at the brain and behavioral levels. For this purpose, over 150 infants have been recruited and are longitudinally followed from 6 to 24 months of age. In experimental sessions, infants perform different eye-tracking tasks in which attention control was examined with disengagement, shifting and visual sequence learning paradigms. Additionally, we record brain activity with a high-density EEG system in order to assess functional connectivity between fronto-parietal regions in different frequency bands. We aim at tracing the development of EA at the brain and behavior levels as well as studying individual differences in the early development of attention skills in relation to patterns of brain connectivity. In addition, we aim at examining the impact of diverse variables that might affect the early development of EA, such as home-environment, temperament, and the risk for developmental disorders involving attention.

Representative publications:

Conejero, A., Guerra, S., Abundis-Gutiérrez, A., & Rueda, M. R. (2016) Frontal theta activation associated with error detection in toddlers: Influence of familial socio-economic status. *Developmental Science*, 1-11; DOI: 10.1111/desc.12494

Conejero, A., & Rueda, M. R. (2018) Infant temperament and family socio-economic status in relation to the emergence of attention regulation. *Scientific Reports, 8(1),* 11232. doi: 10.1038/s41598-018-28831-x

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MASTER IN COGNITIVE AND BEHAVIORAL NEUROSCIENCE

Master's Thesis (TFM) Topic of Research

Topic: Risk perception and decision-making in different contexts: impulsivity, moral and affective effects

Principal Investigators: Antonio Cándido Ortiz, Andrés Catena

Web:

Learning Emotion Decision Research Group

e-mail: acandido@ugr.es

Room: 380 (Psychology Building)

Brief description of the project:

Risk perception of risk contexts and making risky decisions or not in these contexts usually carry physical, emotional and moral consequences of great personal impact. These situations are clearly exemplified in traffic environments, although we can also observe them in other social or economic contexts. It is therefore important to investigate how these factors also influence decision-making in these contexts and the brain circuits involved in order to develop psychological treatment that improves decision-making.

Representative publications:

Megías, A., Navas, J. F., Petrova, D., Cándido, A., Maldonado, A., Garcia-Retamero, R., & Catena, A. (2015). Neural mechanisms underlying urgent and evaluative behaviors: An fMRI study on the interaction of automatic and controlled processes. *Human Brain Mapping*, *36*(8), 2853-2864. https://doi.org/10.1002/hbm.22812

Baltruschat, S., Cándido, A., Megías, A., Maldonado, A., & Catena, A. (2020). Risk proneness modulates the impact of impulsivity on brain functional connectivity. *Human Brain Mapping*, *41*(4), 943-951. https://doi.org/10.1002/hbm.24851

UNIVERSIDAD DE GRANADA

MASTER IN COGNITIVE AND BEHAVIORAL NEUROSCIENCE

Master's Thesis (TFM) Topic of Research

Topic: The psychological processing of traumatic events.
Principal Investigator: Andrés Catena Martínez
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Room: 388 (Psychology Building)

Brief description of the project:

We propose the following research lines:
1. The psychological profiles of traumatic events. The case of road accidents.
The investigation of the processing of traumatic events and rare events, that only happen one or two times in a life has been neglected due to the difficulties, ethical and methodological, of reproducing them in the lab. Here, we propose the use of cyclomotor and car simulator to study these events, using high density electroencephalography and psychological measurements (tasks demanding vigilance during simulated driving and executive functions).

Representative publication:

Patalak, J. P., Harper, M. G., Weaver, A. A., Dalzell, N. M., & Stitzel, J. D. (2020). Estimated crash injury risk and crash characteristics for motorsport drivers. *Accident Analysis & Prevention, 136*, 105397.

Master's Thesis (TFM) Topic of Research

Topic: Bilingualism, second language learning and cognitive control
Principal Investigators: Teresa Bajo & Daniela Paolieri
Web: http://memory.ugr.es/member/ma-teresa-bajo
http://memory.ugr.es/member/daniela-paolieri
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Brief description of the project:

Several theories of bilingual lexical processing assume a parallel activation of the lexicons of the two languages. In this research line our aim is to understand the extent of the interaction between the two languages in the bilingual mental lexicon at different linguistic levels and the relation with the executive functions, and memory. The experimental methodology used in our research team ranges from behavioural analyses (reaction times and response accuracy and eye-tracking monitoring) and recording of brain activity (EEG and FMRi), to study both production and comprehension, and the impact of using first and second language in memory and learning processes.

Representative publications:

Paolieri, D., Demestre, J., Guasch, M., Bajo, T., & Ferré, P. (2020). The gender congruency effect in Catalan–Spanish bilinguals: Behavioral and electrophysiological evidence. *Bilingualism: Language and Cognition*, 1-11. DOI: https://doi.org/10.1017/S1366728920000073

Paolieri, D., Padilla, F., Koreneva, O., Morales, L., & Macizo, P. (2019). Gender congruency effect in second language production: Evidence from Russian-Spanish bilinguals. *Bilingualism: Language and Cognition, 22*, 112-129. doi: 10.1017/S1366728917000591

Pérez, A., Hansen, L., & Bajo, T. (2019). The nature of first and second language processing: The role of cognitive control and L2 proficiency during text-level comprehension. *Bilingualism: Language and Cognition, 22*, 930-948.

Master's Thesis (TFM) Topic of Research

Topic: The role of anxiety in interpersonal decision making
Principal Investigators: Alberto Acosta and María Ruz
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Brief description of the project:

In previous studies, using economic games such as the Trust Game and the Ultimatum Game, we have found that interpersonal decisions are mediated by affective and evaluative information related to the game partner. Participants in the Trust Game must decide whether or not they want to cooperate with an unknown partner who can reciprocate in the offers or refuse them. Participants in the Ultimatum Game receive economic offers from a playmate who divides an amount of money fairly (e.g. 5 € - 5 €) or unfairly (e.g. 9 € - 1 €).. If the participant accepts the offer, both players will receive the amount distributed; while if s/he rejects it, no one will win anything. In both tasks, decisions regarding cooperation and rejection of fair and unfair offers are biased by the opinion of the participants about the morality of the play partner and the emotions expressed during the game. We want to study whether these effects are increased in people with high levels of trait anxiety, especially when the affective information is negative, given the deficits they present in executive control and their biases towards threatening information.

Representative publications:

Gaertig, C., Moser, A., Alguacil, S., & Ruz, M. (2012). Social information and economic decision-making in the ultimatum game. *Frontiers in Neuroscience, 6*. doi: 10.3389/fnins.2012.00103.

Pacheco-Unguetti A. P., Acosta, A., Callejas, A., & Lupiáñez, J. (2010). Attention and anxiety: different attentional functioning under state and trait anxiety. *Psychological Science, 21*, 298-304. doi: 10.1177/0956797609359624.

Master's Thesis (TFM) Topic of Research

Topic: The effect of retrospective attention on working memory

Principal Investigator: Fabiano Botta
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Brief description of the project:

Attention can be oriented both to information coming through the senses, and to information internally maintained in working memory (WM) in the absence of corresponding perceptual input. Despite the theoretical importance of attention in both domains, attentional mechanisms are much better comprehended in perception than in working memory. Evidence for an internal focus of attention towards working memory representations has come from studies showing that performance can be improved if attention is retrospectively oriented to the test-relevant contents of WM before testing them, showing the so-called retro-cue benefit. However, it is still not clear what are the exact mechanisms involved in the retro-cue benefit and what are the effects produced by retrospective attention on representations internally maintained in working memory. The main aim of the present line of research is to contribute to clarify these mechanisms by using both behavioural and EEG measures.

Representative publications:

Souza A. S., & Oberauer, K. (2016). In search of the focus of attention in working memory: 13 years of the retro-cue effect. *Attention Perception & Psychophysics*, *78*, 1839–1860.

Lepsien J., Griffin, I. C., Devlin, J. T., & Nobre, A. C. (2005). Directing spatial attention in mental representations: Interactions between attentional orienting and working-memory load. *NeuroImage*, *26*, 733–743.

Master's Thesis (TFM) Topic of Research

Topic: Conceptual metaphors in mental representation
Principal Investigator(s): Julio Santiago
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Room: 312 (Psychology Building)

Brief description of the project:

People systematically resort to concrete concepts when they need to think about abstract concepts. For example, we think of time as if it were a travel in which the future is in front of us and the past is left behind (even though past and future are located nowhere). As another example, people associate good things with the right hand and bad things with the left hand. In this line we follow up on prior studies from our lab. The aim is to study how this kind of associations (called conceptual metaphors) are used in processing tasks, and what are the factors that determine its flexibility and variability both within individuals as well as across cultural and subcultural groups. In prior studies we have shown that Spaniards also associate past with left and future with right (Santiago et al., 2007) and that this association is due to the experience of reading and writing because right-to-left readers show the opposite association (Ouellet et al., 2010). We have also shown that Moroccans place the past in front and the future behind, and that this mapping is related to the balance between cultural temporal values related to tradition (past) and progress (future; de la Fuente et al., 2014; Callizo-Romero et al., in press). Finally, we have also shown that the conceptual metaphor that associates good with right and left with bad is sensible to the experience of differential fluency using the hands, but is not sensible to the strength of cultural values that favour the right hand over the left hand (de la Fuente et al., 2015).

Reference publications:

Callizo-Romero et al. (in press). Temporal focus and time spatialization across cultures. *Psychonomic Bulletin and Review*

De la Fuente et al. (2014). When you think about it, your past is in front of you: How culture shapes spatial conceptions of time. *Psychological Science, 29*, 1682-1690.

De la Fuente et al. (2015). Can culture influence body-specific associations between space and valence? *Cognitive Science, 39*, 821-832.

Ouellet et al. (2010). Is the future the right time? *Experimental Psychology, 57*, 308-314.

Santiago et al. (2007). Time (also) flies from left to right. *Psychonomic Bulletin & Review, 14*, 512-516.

Master's Thesis (TFM) Topic of Research

Topic: Eye-Gaze Versus Arrows: a comparison to study Social Attention

Principal Investigators: Juan Lupiáñez and Andrea Marotta
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Brief description of the project:

The ability to accurately encode and attend other people's direction of attention (e.g., following eye gaze), is crucial in social communication. In particular the ability to correctly interpret and follow the direction of another individual's gaze serves as a foundation for more sophisticated social skills such as a theory of mind, language acquisition and cultural learning. However, there have been and there is still a debate in the literature as to whether gaze stimuli are "special" in terms of the attentional processes engaged, in comparison to other non-social directional stimuli. Recently we have been able to show both shared and dissociable attentional components between gaze and arrow stimuli, suggesting the existence of a social-specific dimension exclusively involved in gaze processing.

At the moment we are carrying out several lines of research with Behavioural and Cognitive Neuroscience (EEG, fMRI, TMS) methods to investigate the underlying mechanisms by which gaze is processed as a special social attentional stimulus.

Representative publications:

Marotta, A., Lupianez, J., Martella, D., & Casagrande, M. (2012). Eye gaze versus arrows as spatial cues: Two qualitatively different modes of attentional selection. J *Exp Psychol Hum Percept Perform, 38*(2), 326-335. doi:2011-12265-001 [pii] 10.1037/a0023959

Marotta, A., Román-Caballero, R., & Lupiáñez, J. (2018). Arrows don't look at you: Qualitatively different attentional mechanisms triggered by gaze and arrows. *Psychonomic Bulletin & Review*. doi:10.3758/s13423-018-1457-2

Marotta, A., Lupiáñez, J., Román-Caballero, R., Narganes-Pineda, C., & Martín-Arévalo, E. (2019). Are eyes special? Electrophysiological and behavioural evidence for a dissociation between eye-gaze and arrows attentional mechanisms. *Neuropsychologia*, 129, 146-152.

Master's Thesis (TFM) Topic of Research

Topic: Attentional networks and Arousal and Executive Vigilance
Principal Investigators: Elisa Martín-Arévalo, Fabiano Botta and Juan Lupiáñez
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Brief description of the project:

Following the framework of Posner about three attentional networks, we have developed different tasks to measure alertness, attentional orienting and cognitive control. In the last version of the task we added two measures of vigilance, one more related to maintaining a level of executive vigilance to detect infrequent but relevant targets (Executive Vigilance), and another rather related to the maintenance of a high level of activation to react immediately and without much control to the abrupt appearance of new salient stimuli (Arousal Vigilance). An on-line version of the task has also been developed (http://neurocog.ugr.es/Sitio_web/ANTI/), so that the attentional performance can be measured in multiples contexts, either in the laboratory or in more natural situations. With these tools, several lines of research are currently being carried out to dissociate Executive from Arousal Vigilance, while studying the effects of Electrical Brain Stimulation, Emotional Induction, Physical Exercise and Sport Practice, Musical Practice, Mindfulness, etc.

Representative publications:

Luna, F. G., Román-Caballero, R., Barttfeld, P., Lupiáñez, J., & Martín-Arévalo, E. (2020). A High-Definition tDCS and EEG study on attention and vigilance: Brain stimulation mitigates the executive but not the arousal vigilance decrement. *Neuropsychologia, 142*, 107447. https://doi.org/10.1016/j.neuropsychologia.2020.107447

Román-Caballero, R., Martín-Arévalo, E., & Lupiáñez, J. (2020). Attentional networks functioning and vigilance in expert musicians and non-musicians. *Psychological Research*, (0123456789). https://doi.org/10.1007/s00426-020-01323-2

Thomson, D. R., Besner, D., & Smilek, D. (2015). A Resource-Control Account of Sustained Attention: Evidence From Mind-Wandering and Vigilance Paradigms. *Perspectives on Psychological Science, 10*(1), 82-96. doi:10.1177/1745691614556681.

Master's Thesis (TFM) Topic of Research

Topic: Endogenous and exogenous attentional orienting.
Principal Investigators: Elisa Martín-Arévalo, Fabiano Botta and Juan Lupiáñez
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Brief description of the project:

Over the last decade, we have dissociated voluntary from involuntary attentional orienting, systematically observing that – far from representing two ways of orienting a single attention mechanism – the represent two different attentional mechanisms, possibly with different functions and ways to operate. However, it is not clear exactly how the two types of attentional orienting interact to modulate behaviour. While a good operation of voluntary attention guaranties correct fulfilment of future goals, some involuntary distraction by irrelevant (for the future goals) but potentially crucial (e.gr. for present survival) salient/new events seems also necessary. For the appropriate functioning of the attentional system an equilibrium between the two systems seems necessary for an appropriate adaptation to the environment. In this line of research, we aim to further investigate the specific attentional mechanisms underlying both voluntary and involuntary attentional orienting by using behavioural measures, ERPs, fMRI, and/or TMS.

Representative publications:

Corbetta, M., Patel, G., & Shulman, G. L. (2008). The reorienting system of the human brain: from environment to theory of mind. *Neuron, 58*(3), 306-324.

Chica, A.B., Martín-Arévalo, E., Botta, F., & Lupiáñez, J. (2014). The Spatial Orienting paradigm: How to design and interpret spatial attention experiments. *Neuroscience & Biobehavioral Reviews*, *40*, 35-51

Martín-Arévalo, E., Botta, F., De Haro, V., & Lupiáñez, J. (2019). On the putative role of intervening events in exogenous attention. Psychological Research.

Martín-Arévalo, E., Chica, A.B., & Lupiáñez, J. (2016). No single electrophysiological marker for facilitation and inhibition of return: A review. *Behavioural brain research, 300*, 1-10.

Martín-Arévalo, E., Lupiáñez, J., Narganes-Pineda, C., G Marino, G., Colás, I, & Chica, A.B. (2019). The causal role of the left parietal lobe in facilitation and inhibition of return. *Cortex, 117*, 311-322.

Master's Thesis (TFM) Topic of Research

Topic: Emotion as a perceptual regulator: Fear and disgust as modulators of stimulus detection and discrimination

Principal Investigators: Juan Lupiáñez and Alberto Acosta
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Brief description of the project:

The conceptualization of emotions as regulators of social interactions is well known, whereas their role as sensory regulators in extracting information from the environment is less well unknown. In this line of work, we test the hypothesis that fear and disgust modulate perception in different ways. While fear facilitates the detection of novel stimuli in the environment, treating each moment as something new, disgust enhances the integration of information across time, favoring discrimination. We use different methods to induce emotional states related to fear or disgust, and evaluate how these emotional states modulate performance in tasks measuring different aspects of perception (feature and object detection, spatial and temporal discrimination, etc), memory and decision making, in comparison to neutral or positive emotional states.

Representative publications:

Lee, D. H., Mirza, R., Flanagan, J. G., & Anderson, A. K. (2014). Optical Origins of Opposing Facial Expression Actions. *Psychological Science*. doi: 10.1177/0956797613514451.

Pacheco-Unguetti, A. P., Acosta, A., Callejas, A., & Lupiáñez, J. (2010). Attention and Anxiety: Different Attentional Functioning Under State and Trait Anxiety. *Psychological Science, 21*(2), 298-304. doi: 10.1177/0956797609359624.

Master's Thesis (TFM) Topic of Research

Topic: Motivation, anxiety and cognitive control: The role of the affective content and learning about uncertainty

Principal Investigators: Juan Lupiáñez, Alberto Acosta & Marcin Bukowski

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Brief description of the project:

Previous studies have shown that people with high trait anxiety (or people induced lack of control) show greater interference by distracting stimuli, compared to people who score low on trait anxiety questionnaires such as the STAI (Bishop, 2009; Pacheco-Unguetti, Acosta, Callejas y Lupiáñez, 2010) or those who are induced a sense of control (Bukowski, Asanowicz, Marzecová, & Lupiáñez, 2015). These results have been observed when neutral material (without affective content) is used in the interference task. However, other studies have shown that this effect is not observed when affective material is manipulated in the task measuring cognitive control (Pacheco-Unguetti, 2010). An important objective of this line of research is the systematic study of the presence-absence of affective content, as a determining factor in the observation of greater interference associated with high trait anxiety and participants experience lack of control.

Representative publications:

Bukowski, M., Asanowicz, D., Marzecová, A., & Lupiáñez, J. (2015). Limits of control: The effects of uncontrollability experiences on the efficiency of attentional control. *Acta Psychologica, 154*, 43–53. https://doi.org/10.1016/j.actpsy.2014.11.005

Bishop, S. J. (2009). Trait anxiety and impoverished prefrontal control of attention. *Nat Neurosci, 12*(1), 92-98.

Pacheco-Unguetti, A. P. (2010). *Anxiety, Cognitive control and processing styles.* Unpublished Doctoral Thesis, Universidad de Granada, Granada.

Pacheco-Unguetti, A. P., Acosta, A., Callejas, A., & Lupiáñez, J. (2010). Attention and Anxiety: Different Attentional Functioning Under State and Trait Anxiety. *Psychological Science, 21*(2), 298–304.

Master's Thesis (TFM) Topic of Research

Topic: Animal models and Binge Drinking
Principal Investigator: Ignacio Morón Henche
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Brief description of the project:

Animal models of alcohol (ethanol) self-administration are crucial to dissect the neurobiological mechanisms underlying alcohol dependence. Yet only a few of them induce pharmacologically relevant levels of alcohol consumption and rarely co-occur with other addictive behaviors. The present research aims to validate a novel model of voluntary ethanol consumption in male and female Wistar rats, in which ethanol access follows a binge eating experience. Over 10 sessions, Wistar rats were exposed to BINGE or CONTROL eating (i.e., the ingestion of 11.66 kcal/3min and 0.97 kcal/3min, respectively; derived from a highly palatable food), immediately followed by two-bottle choice intake tests (2%, 6%, 10% or 14% w/w ethanol vs. water). Rats exposed to BINGE eating drank significantly more 6% or 10% (w/w) ethanol than CONTROL peers, reaching up to 6.3 gEtOH/kg. Rats stimulated with 2%, 6%, 10% or 14% ethanol after BINGE eating, but not those given those ethanol concentrations after CONTROL eating, exhibited significant within-group increases in ethanol drinking. Altogether, this self-administration model seems a valid and robust alternative with remarkable potential for research on different stages of the alcohol addiction and, particularly, to assess interactions between alcohol consumption and others addictive-like behaviors

Representative publications:

Avena, N. M., Carrillo, C. A., Needham, L., Leibowitz, S. F., & Hoebel, B. G. (2004). Sugar-dependent rats show enhanced intake of unsweetened ethanol. Alcohol, 34(2-3), 203-209.

Fortuna, J. L. (2010). Sweet preference, sugar addiction and the familial history of alcohol dependence: shared neural pathways and genes. Journal of psychoactive drugs, 42(2), 147-151

Jeanblanc, J., Rolland, B., Maurage, P., Gierski, F., & Naassila, M. (2019). Animal models of binge drinking: behavior and clinical relevance. In Neuroscience of Alcohol (pp. 57- 66). Academic Press

Munn-Chernoff, M. A., Johnson, E. C., Chou, Y. L., Coleman, J. R., Thornton, L. M., Walters, R. K., ... & Slachtova, L. (2021). Shared genetic risk between eating disorder-and substance-use-related phenotypes: Evidence from genome-wide association studies. Addiction biology, 26(1), e12880

Ruiz-Leyva, L., Vázquez-Ágredos, A., Jiménez-García, A. M., López-Guarnido, O., Pla, A., Pautassi, R. M., ... & Cendán, C. M. (2022). From binge eating to binge drinking: A new and robust paradigm for assessing binge ethanol self-administration in male rats. Addiction Biology, 27(2), e13153

Master's Thesis (TFM) Topic of Research

Topic: Interference inhibition and memory control
Principal Investigators: Teresa Bajo & Alejandra Marful
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Brief description of the project:

Inhibition has been proposed as a mechanism in charge of preventing cognition from interference situations. This mechanism facilitates access to information stored in long term memory and the updating of the contents of working memory. Our research is mainly focused on studying the nature of this inhibitory mechanism by using retrieval practice, directed forgetting and updating tasks, and on understanding how efficiency of inhibitory processing and vulnerability to interference changes across the life span. We are also investigating these processes in some clinical populations such as schizophrenic patients, and patients with bipolar disorders. The experimental methodology used in our research team ranges from behavioural analyses (reaction times and response accuracy) to eye-tracking monitoring and recording of brain activity (EEG and FMRi).

Representative publications:

Ortega, A., Gómez-Ariza, C.J., Román, P.E., & Bajo, M.T. (2012) Memory inhibition, aging and the executive deficit hypothesis. *Journal of Experimental Psychology: Learning, Memory & Cognition, 38*, 178-186.

Anderson, M.C., & Huddleston, E. (2011). Towards a Cognitive and Neurobiological Model of Motivated Forgetting. In Belli, R. F. (Ed.), *True and false recovered memories: Toward a reconciliation of the debate. Vol. 58*: Nebraska Symposium on Motivation. New York: Springer.

Master's Thesis (TFM) Topic of Research

Topic: Hazard Prediction an Risky Decision Making implemented in PC, APPs, 3D-Goggles, Elumens Vision Station for drivers screening and training purposes.

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Brief description of the project:

We propose now to develop an Hazard Prediction test implemented in 3D (stereoscopic- panoramic vision), to compare its efficacy for evaluation and training with respect to the traditional test implemented with a PC or APPs, since the HP test implemented with a PC and simulators lacks the capacity to elicit emotions similar to those produced in real driving. The training programmes that might allow road users to be exposed to risky situations that have a low level of occurence in real settings, improving their ability to detect them and acquire the skills needed to respond in a safe way. The most effective programmes will be implemented in VR y APPs. We will analyse the effect of:

1) Practice- 2) Proactive instructive commentaries. 3) Feedback. 4) Accident Analysis. 5) Short / long-term training.

Representative publications:

Ventsislavova, P., Crundall, D., García-Fernández, P. & **Castro, C**., (2021). Assessing willingness to engage in risky driving behaviour using naturalistic driving footage: the role of age and gender. *International Journal of Environmental Research and Public Health*, 18 (19): 10227. DOI: 10.3390/ijerph181910227

Castro, C., Ventsislavova, P., García-Fernandez, P. & Crundall, D. (2021). Risky Decision Making and Hazard Prediction are negatively related and could be assessed independently using driving footage. *Psychology Research and Behavior Management, 14,* 857-876 DOI: 10.2147/PRBM.S305979

Muela I, Chica A, Garcia-Fernandez P, & Castro C. (2021). Visual attention in realistic driving situations: Attentional capture and Hazard Prediction. *Applied Ergonomics*, 89, 103235. DOI: 10.1016/j.apergo.2020.103235

Castro, C., Muela, I., Doncel, P. & Garcia-Fernandez, P. (2020). Hazard Perception and Prediction test for walking, riding a bike and driving a car: "Understanding of the global traffic situation". PLoS ONE 15(10): e0238605, DOI: 10.1371/journal.pone.0238605

Master's Thesis (TFM) Topic of Research

Topic: SBIRT-Spain study: ***S****creening,* ***B****rief Motivational* ***I****ntervention and* ***R****eferral to* ***T****reatment) applied to a sample of Spanish recidivist drivers* (PND-2020-I019, MSCBS.)

Principal Investigator: Candida Castro

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Brief description of the project:

Alcohol or drug consumption by reoffenders may be the tip of the iceberg that helps to detect problems of consumption detrimental to health that affect other aspects of their lives (family, social or work). To achieve early prevention of the risky behaviours associated with alcohol or drug consumption, we are planning to set up the SBIRT-Spain study: ***S****creening,* ***B****rief Motivational* ***I****ntervention and* ***R****eferral to* ***T****reatment) applied to a sample of Spanish recidivist drivers.*

1. Screening involves a rapid assessment of alcohol and drug abuse in the sample of recidivist drivers. Screening large numbers of individuals presents an opportunity to engage with those in need of treatment.

2. Brief Motivational Intervention (Cordovilla-Guardia, et al. 2017) in less severe cases of substance consumption (Substance Use Disorders, SUD).
It has proved effective in reducing recidivism in patients hospitalised for trauma, who presented positive for alcohol and/or illicit drug use. Its utility in early prevention among reoffenders attending courses to regain their licenses at driving schools has not yet been analysed: a) even though they are not actively looking for help or treatment for their problems, b) before more serious damage is caused, to avoid recurrent reoffending and promote healthy habits.

3. And/or for those reoffenders with more severe consumption abuse (SUD), referrals to specialised detoxification treatment programmes.

Representative publications:

Cordovilla-Guardia S, Fernández-Mondéjar E, Vilar-López R, Navas JF, Portillo-Santamaría M, Rico-Martín S, et al. (2017) Effect of a brief intervention for alcohol and illicit drug use on trauma recidivism in a cohort of trauma patients. PLoS One. 12: e0182441. DOI: 10.1371/journal.pone.0182441

Master's Thesis (TFM) Topic of Research

Topic: A FIRST SPANISH EVALUATION PROTOCOL BASED ON THE ANALYSIS OF VARIABLES THAT CAN PREDICT SAFE "DRIVING CAPACITY" AFTER SUFFERING BRAIN DAMAGE (P20-00338-PAIDI)

IPs: Cándida Castro & María Rodríguez Bailón

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Brief description of the project:

In Spain, according to the Spanish Federation of Cerebral Damage between the years 2010-2012, 420,000 people with acquired brain injury were recorded. 78% of cases originate from a stroke. Every year there are 104,071 new cases. People who have suffered a cerebrovascular accident (CVA) or stroke may show cognitive alterations in memory processes, concentration, decision-taking and problem-solving, etc. Likewise, they frequently undergo personality changes, making them more short-tempered or rigid in their attitudes. Although a high percentage of these people manage to survive the stroke, it is common for them to show both physical and cognitive after-effects that may affect their ability to manoeuvre a motor vehicle safely. However, evaluating the "fitness to drive" of patients suffering an Ictus remains unresolved. The current project may be considered as a pledge of collaboration between researchers expert in the fields of Neuropsychology and Occupational Therapy. Specialists in the evaluation of impaired cognitive processes following brain injury that impacts on day-to-day life will work together with specialists in the field of cognitive processes relevant to safe driving. The aim of this collaboration is to study and test a new evaluation protocol that recognises the cognitive processes needed for driving. This will allow us to identify which cognitive functions are determinants for the task of driving and, even more, on which of these aspects are predictors of safe driving.

Representative publications:

Christie, N., Savill, T., Grayson, G., Newby, G. & Tyerman, A. (2001). *The assessment of fitness to drive after brain injury or illness*. Report TRL485, Crowthorne. UK

Lundqvist A., Gerdle B., & Rönnberg J.. (2000). Neuropsychological aspects of driving after a stroke—in the simulator and on the road. *Applied Cognitive Psychology*, *14*(2), 135-150.

Patomella, A.-H., & Bundy, A. (2015). P-Drive: Implementing an Assessment of On-Road Driving in Clinical Settings and Investigating Its Internal and Predictive Validity. *The American Journal of Occupational Therapy: 69*(4), 6904290010

Master's Thesis (TFM) Topic of Research

Topic: Incentive salience, outcome revaluation, and cue-reward extinction in human action control and selection: Individual differences

Principal Investigator: Felisa González
Web: https://sites.google.com/site/ugrled/people/senior-researchers/felisa-gonzalez-reyes
e-mail: fgreyes@ugr.es
Room: 311 (Psychology Building)

Brief description of the project:
Environmental signals paired with the occurrence of valuable outcomes (rewards) acquire incentive value through processes of associative learning (Pavlovian conditioning), being able to bias choice behavior toward seeking responses with which they share the same outcome (Pavlovian to instrumental transfer). These signals may be informative, guiding action selection (by signaling the availability of the outcome in a goal-directed manner) or may trigger strong attentional and motivational responses toward the signal itself, even if this makes gaining the outcome less likely (incentive salience, leading to reflexive, automatic, habit-like responses). Individuals differ in the extent to which they react to the cue as a signal of the outcome (goal-trackers) or as a stimulus with incentive salience (sign-trackers). In the latter case, problems in updating the signal predictive-value as well as the outcome incentive-value may arise. We investigate this issue through the procedures of Pavlovian to instrumental transfer, Pavlovian extinction, instrumental outcome devaluation, and reversal learning. Further, we are interested in linking these updating failures to personality traits, such as affective impulsivity, and failures in emotion regulation.

Representative publications:
Derman, R. C., Schneider, K., Juarez, S., & Delamater, A. R. (2018). Sign-tracking is an expectancy-mediated behavior that relies on prediction error mechanisms. *Learning & Memory*, *25*(10), 550–563.

Fitzpatrick, C. J., Geary, T., Creeden, J. F., & Morrow, J. D. (2019). Sign-tracking behavior is difficult to extinguish and resistant to multiple cognitive enhancers. *Neurobiology of Learning and Memory*, *163*, 107045.

Hinojosa-Aguayo, I., & González, F. (2020). Affect-driven impulsivity impairs human action control and selection, as measured through Pavlovian instrumental transfer and

outcome devaluation. *Quarterly Journal of Experimental Psychology*, 73, 537-554.

Master's Thesis (TFM) Topic of Research

Topic: High-level text comprehension processes in monolinguals and/or bilinguals, and individual differences.

Principal Investigators: Ana I. Pérez Muñoz and Teresa Bajo

Web: https://www.researchgate.net/profile/Ana_Perez_Munoz2

e-mail: anaipe@ugr.es

Room: 217 (CIMCYC)

Brief description of the projects:

1. Bilingual text comprehension. How text comprehension processes are performed in the native language (L1) and second language (L2), in adults.

2. Ageing in text comprehension. How text comprehension processes are determined by differences between young and old (monolingual) adults.

In the two research lines, we use tasks assessing inferential monitoring and inferential updating (i.e., situation model revision task), as well as cognitive control (e.g., proactive vs. reactive control). Both behavioural and electrophysiological (EEG) measures are registered.

Representative publication:

Pérez, A., Hansen, L., & Bajo, T. (2019). The nature of first and second language processing: The role of cognitive control and L2 proficiency during text-level comprehension. *Bilingualism: Language and Cognition*, *22*, 930-948. DOI: https://doi.org/10.1017/S1366728918000846

Master's Thesis (TFM) Topic of Research

Topic: Light for Sleep
Principal Investigator: Ángel Correa Torres
Web: http://www.ugr.es/%7Eact/act/index.html
e-mail: act@ugr.es
Room: 211 (Psychology Building)

Brief description of the project:

The natural daylight-darkness cycle of Earth rotation regulates our circadian rhythm of sleep/wakefulness. However, in modern everyday life humans increasingly spend more time indoors, replacing natural light by artificial electric light and adopting nocturnal life modes for work or leisure activities. These habits are decreasing both the quality and duration of human exposure to light (the most important synchroniser of our circadian rhythms), producing chronodisruption and sleep disorders. Epidemiological studies show that chronodisruption is related to an increased incidence of metabolic syndrome, cardiovascular diseases, some cancer types, aging, cognitive impairment and affective disorders.

If we want to address the problem of insufficient sleep and chronodisruption we should work on strategies to promote sleep at the right time of day. **The current project aims to understand the mechanism by which changes in spectral composition and intensity of light can regulate arousal and sleep through the circadian system**.

We will specifically test whether evening exposure to a simulated dusk lighting can decrease arousal and enhance subsequent sleep quality and duration. Our hypothesis assumes that the most powerful lighting conditions to regulate arousal and circadian rhythms should simulate the dramatic changes in intensity and spectral composition associated to the Earth rotation that naturally cues the two critical times of day at dawn and dusk.

Representative publication:

Rodríguez-Morilla, B, Madrid J.A., Molina, E., Pérez-Navarro, J., & Correa, A. (2018). Blue-enriched light enhances alertness but impairs accurate performance in evening chronotypes driving in the morning. PDF

Master's Thesis (TFM) Topic of Research

Topic: Analysis of Learning by Stimulus Exposure: Theoretical and Practical Implications

Principal Investigator: Isabel de Brugada Sauras
Web: http://www.ugr.es/~neple/members_isabelbrugada.htm
e-mail: dbrugada@ugr.es
Room: 211 (Psychology Building)

Brief description of the project:

Animal models are used to study how repeated experience with sapid stimuli, with or without nutritional consequences, can create and modify preferences and eating habits, as well as the different factors that modulate this process. This knowledge would allow the development of behavioural intervention programs to promote healthy eating habits. In the present project a series of studies are proposed directed, on one hand, to identify the fundamental mechanisms behind exposure effects, with the goal of proposing a unified theory based on a limited number of well-known central concepts. On the other hand, this knowledge is going to be applied in the area of eating behaviour, studying how repeated exposure to different foodstuff can result in changes in how the organism responds to them. For instance, exposure to a variety of similar foods would result in a greater discrimination between them, and consequently in an increased intake caused by a disruption in sensory-specific satiety. Also, exposure to sweet food without caloric consequences can alter the predictive relationship between sweet flavour and calories, causing metabolic imbalances. This last idea could explain the paradoxical finding that the regular consumption of non-caloric edulcorated food is related to weight increase and a higher total intake.

Representative publications:

Gil, M, de Brugada, I & Hall, G. (2021) Motivational Factors Controlling Flavor Preference Learning and Performance: Effects of Preexposure with Nutritive and Nonnutritive Sweeteners *Behavioural processes* https://doi.org/10.1016/j.beproc.2021.104462

González, A., Recio, S. A., Sánchez, J., Gil, M., & de Brugada, I. (2018). Effect of exposure to similar flavours in sensory specific satiety: Implications for eating behaviour. *Appetite*, 127, 289–295.

González, A., Sánchez, J., & de Brugada, I. (2022). Habituation as an underlying mechanism for Sensory Specific Satiety: An assessment using flavor consumption and preference in rats. *Appetite*, 105821. https://doi.org/10.1016/j.appet.2021.105821

Master's Thesis (TFM) Topic of Research

Topic: Perceptual Learning in Animals and Humans: Comparison and Salience Modulation
Principal Investigator: Isabel de Brugada Sauras
Web: http://www.ugr.es/~neple/members_isabelbrugada.htm
e-mail: dbrugada@ugr.es
Room: 211 (Psychology Building)

Brief description of the project:

Perceptual Learning refers to a phenomenon that occurs when discrimination between two similar stimuli is faciltated by prior experience with those stimuli. This phenomenon has been studied using both human and non-human subjects and it is assumed that the basic perceptual and learning mechanisms are general for both cases. However, some instances of perceptual learning, are incompatible with these general principles and seem to be obtained only with humans. Findings from studies with human subjects suggest that, as Gibson (1956) proposed, stimulus comparison is critical for perceptual learning. When animals are used as subjects, the standard procedure that is routinely used does not favour stimulus comparison, and when manipulations are put in place in order to aid comparison, the results are rather ambiguous. The discrepancies between the results obtained with human and non-human animals could be due to some procedural differences. The aim of the present project is to conduct a series of experiments using non-human subjects with procedures that allow us to show that the comparison process also plays a role when these animals are used as subjects. In addition, we aim to run a series of experiments with human animals as subjects in order to rule out an explanation in terms of discrimination learning. It is then hoped that the general mechanisms of comparison and salience modulation might be integrated into existing associative theories in order to provide a complete explanation of perceptual learning phenomena.

Representative publications:

Mitchell, C., & Hall, G. (2014). Can theories of animal discrimination explain perceptual learning in humans? *Psychological Bulletin*, *140*, 283-307.

Recio, S, Iliescu, A., & de Brugada, I. (2018). The role of stimulus comparison in animal perceptual learning: Effects of a distractor placement. *Quarterly Journal of Experimental Psychology.*

Recio, S. A., Iliescu, A. F., & de Brugada, I. (2019). The amount of exposure determines generalization in animal perceptual learning using short inter-stimulus intervals. *Behavioural Processes, 166*, 103900.

Master's Thesis (TFM) Topic of Research

Topic: The role of gray and white matter in attention and consciousness.

Principal Investigators: Ana B. Chica & Elisa Martín-Arévalo.
Web: https://blogs.ugr.es/attentionandconsciousness/, https://www.ugr.es/~neurocog/Sitio_web/elisamartin.html
e-mail: anachica@ugr.es, emartina@ugr.es
Room: 381 (Psychology Building)

Brief description of the project:

Only a small fraction of all the information reaching our senses is consciously perceived. Attention can facilitate conscious access throughout the participation of distributed brain regions, with an important role of frontal areas [1, 2]. Large-scale networks, including parietal and frontal regions, are claimed to be important for the amplification and maintenance of conscious contents. The present project aims to use a non-invasive stimulation technique (transcranial magnetic stimulation) to interfere with a frontal area and test its modulation over attention and consciousness. We will further explore whether these modulations are associated with the integrity of the white matter tracts connecting the parietal and frontal lobes (specifically the superior longitudinal tract) [3]. This study will shed some light on the causal role of the frontal lobe in the attention and consciousness, along with determining the role of white matter tracts in these processes. These results may be interesting for individualized rehabilitation approaches in patients showing attention and consciousness deficits after brain damage.

Representative publications:

Chica, A. B. et al. (2013). Neural bases of the interactions between spatial attention and conscious perception. *Cerebral Cortex, 23*(6), 1269-79.

Chica, A. B. et al. (2016). Interactions between phasic alerting and consciousness in the fronto-striatal network. *Scientific Reports*, *6*, 31868.

Thiebaut de Schotten, M., et al. (2011). A lateralized brain network for visuospatial attention. *Nature Neuroscience, 14*(10), 1245-6.

Master's Thesis (TFM) Topic of Research

Topic: Prediction and decision-making

Principal Investigators: Martijn Wokke, Mar Martín Signes, Ana B. Chica

Web:
https://directorio.ugr.es/static/PersonalUGR/*/show/1185d312dedb6eca48ae60762163fd1f

e-mail: wok@ugr.es, msignes@ugr.es, anachica@ugr.es

Room:

Brief description of the project:

The world consists of many regularities and consistencies that allow us to foresee upcoming events, which in turn can guide our decision-making. However, with the cascade of information that our brains are exposed to at any given moment, it is unclear how our brains manage to uncover predictable information in the environment that can help prepare us for what will happen next. This project will revolve around decision-making, awareness, learning, and predictions. We will use behavioral designs together with computational modeling and possibly EEG and/or brain stimulation to investigate how humans' forecasting skills operate. Central questions will be: How are past events and previous experiences transformed into predictive internal models of the world? How are such predictions (or prior knowledge) being used during decisions-making? How much awareness do we have of the ongoing prediction of future events?

Representative publications:

Wokke, M. E., & Ro, T. (2019). Competitive frontoparietal interactions mediate implicit inferences. Journal of Neuroscience, 39(26), 5183-5194.

Kay, K., Chung, J. E., Sosa, M., Schor, J. S., Karlsson, M. P., Larkin, M. C., ... & Frank, L. M. (2020). Constant sub-second cycling between representations of possible futures in the hippocampus. Cell, 180(3), 552-567.

Master's Thesis (TFM) Topic of Research

Topic: Craving and compulsivity in problematic gambling and video gaming

Principal Investigator: José César Perales

Web: https://orcid.org/0000-0001-5163-8811

e-mail: jcesar@ugr.es

Room: 311 (Psychology Building)

Brief description of the project:

In the last years, research on behavioral addictions has flourished, and problematic behaviors like excessive or dysregulated gambling, video gaming, pornography use, or social networking have been categorized as "addictive". Unfortunately, in spite of the increasing number of publications on these putative addictive disorders, and the instruments proposed to measure or diagnose them, very little is still known about their etiological cognitive and learning mechanisms, and whether or not these justify their shared consideration as addictions.

Our research line is aimed at investigating the role *craving* and *compulsivity* play in addictive disorders, their learning mechanisms, and their presence (or absence) in problematic gambling and video gaming. This could help establish delimitation criteria with important implications for the understanding of behavioral addictions and their treatments.

Representative publications:

Perales, J. C., King, D. L., Navas, J. F., Schimmenti, A., Sescousse, G., Starcevic, V., ... & Billieux, J. (2020). Learning to lose control: A process-based account of behavioral addiction. *Neuroscience & Biobehavioral Reviews, 108,* 771-780.

Master's Thesis (TFM) Topic of Research

Topic: Cognitive and brain functioning in strain states

Principal Investigators: Luis Ciria & Daniel Sanabria

Web: https://hbc.ugr.es

e-mail: daniel@ugr.es

Room: Luis: 35, CIMCYC; Daniel: 315, Psychology Building.

Brief description of the project:

In our research group we investigate the cognitive and brain functioning in strain states such as physical exercise. We are also interested in the role of cognitive and psychological factors in physical and sports performance.

Representative publications:

Ciria, L. F., Perakakis, P., Luque-Casado, A., & Sanabria, D. (2018). Physical exercise increases overall brain oscillatory activity but does not influence inhibitory control in young adults. *NeuroImage, 181*, 203-210. doi: 10.1016/j.neuroimage.2018.07.009.

Holgado, D., & Sanabria, D. (2020). Does self-paced exercise depend on executive processing? A narrative review of the current evidence. *International Review of Sport and Exercise Psychology, 0*(0), 1-24. https://doi.org/10.1080/1750984X.2020.1774915

Ciria, L. F., Suárez-Pinilla, M., Williams, A. G., Jagannathan, S. R., Sanabria, D., & Bekinschtein, T. A. (2021). Different underlying mechanisms for high and low arousal in probabilistic learning in humans. Cortex, 143, 180-194. https://doi.org/10.1016/j.cortex.2021.07.002

Master's Thesis (TFM) Topic of Research

Topic: Neuropsychology and Activities of daily living
Principal Investigator: Mª Jesús Funes Molina
Web:
https://www.ugr.es/~neurocog/Sitio_web/Neuropsychology_And_Everyday_Activities.html
e-mail: mjfunes@ugr.es
Room: 314 (Psychology Building)

Brief description of the project:

The goal of this line of research is to investigate how brain damage affects the adaptation of patients to their environment and what strategies might be effective to ameliorate their deficits. This line of research focus on cognitive abilities that impact activities of daily life (such as cleaning one's teeth or making breakfast).

Representative publications:

Rodríguez-Bailón, M., García-Morán, T., Montoro-Membila, N., Ródenas-García, E., Montoro, M. A., & Funes Molina, M. J. (2017). Positive and Negative Consequences of Making Coffee among Breakfast Related Irrelevant Objects: Evidence from MCI, Dementia, and Healthy Ageing. *Journal of the International Neuropsychological Society, 23*(6), 481–492. https://doi.org/10.1017/S135561771700025X

Rodríguez-Bailón, M., Montoro-Membila, N., Garcia-Morán, T., Arnedo-Montoro, M. L., & Molina, M. J. F. (2015). Preliminary cognitive scale of basic and instrumental activities of daily living for dementia and mild cognitive impairment. *Journal of Clinical and Experimental Neuropsychology, 37*(4), 339–353. https://doi.org/10.1080/13803395.2015.1013022

Master's Thesis (TFM) Topic of Research

Topic: Orienting of attention to space and time

Principal Investigator: Ana Belen Chica & Mariagrazia Capizzi

Web: https://blogs.ugr.es/attentionandconsciousness/

e-mail: anachica@ugr.es; mgcapizzi@ugr.es

Room: 381 (Facultad de Psicología)

Brief description of the project:

Adaptive behavior requires the ability to selectively attend to *where* in space and *when* in time a relevant event might occur. Although a relation between spatial and temporal attention can be easily envisaged in many everyday scenarios, from safely crossing a busy intersection to quickly reacting to a falling object, the two attention types have been mostly studied as separate systems. Understanding whether, and under which conditions, spatial and temporal attention operate independently or interactively has, however, important theoretical and applied implications. On the one hand, a deeper knowledge of the relation between spatial and temporal attention could inform future cognitive and computational models of how the brain handles different attention types. On the other hand, advances in the domains of spatial and temporal attention might be exploited in those scenarios, such as driving or aircraft flying settings, whereby attending to both space and time is of outmost importance for survival. To address the relation between spatial and temporal attention, we devise targeted experimental protocols entailing attention to both dimensions. Neuroimaging (e.g., EEG/fMRI) methods are also employed to elucidate the neural correlates of combined spatial and temporal attention.

Representative publications:

Capizzi, M., & Correa, Á. (2018). Measuring temporal preparation. In A. Vatakis, F. Balci, M. Di Luca, & Á. Correa (Eds.). *Timing and time perception: Procedures, measures, and applications*. Ed. Brill, Leiden Boston, pp. 216-232.

Chica, A. B., Bartolomeo, P., & Lupiáñez, J. (2013). Two cognitive and neural systems for endogenous and exogenous spatial attention. *Behavioural Brain Research, 237*, 107-123.

Chica, A. B., Martín-Arévalo, E., Botta, F., & Lupiáñez, J. (2014). The Spatial Orienting paradigm: how to design and interpret spatial attention experiments. *Neuroscience and Biobehavioral Reviews, 40*, 35–51.

Rohenkohl, G., Gould, I. C., Pessoa, J., & Nobre, A. C. (2014). Combining spatial and temporal expectations to improve visual perception. *Journal of Vision, 14*(4):8, 1-13.

Master's Thesis (TFM) Topic of Research

Topic: The role of temporal expectation in protecting working memory content from distraction

Principal Investigator: Carlos González and Mariagrazia Capizzi

Web: https://ugr.es/~humneuro/

e-mail: cgonzalez@ugr.es; mgcapizzi@ugr.es

Room: 303 (CIMCYC)

Brief description of the project:

Adaptive behavior requires the ability to store and protect relevant, from irrelevant, information in working memory. Recent studies have provided initial evidence that temporal expectation about when interference could occur during the retention period of a working memory task might mitigate the detrimental effects of distraction. These studies reveal that participants are less susceptible to the intrusive effects of distraction in a temporally predictable environment compared to an unpredictable one. However, in previous work, temporal predictability overlapped with expectations about working memory content, since the nature of the interfering item was also predictable. In the present project, we will put the protective role of temporal expectations in working memory to a more stringent test by manipulating both temporal and working memory content predictability. Through tailored experimental designs, our goal is to gain further insight into whether temporal expectation can protect working memory contents from distraction under both stable and more volatile environments.

Representative publications:

Capizzi, M., & Correa, Á. (2018). Measuring temporal preparation. In A. Vatakis, F. Balci, M. Di Luca, & Á. Correa (Eds.). *Timing and time perception: Procedures, measures, and applications*. Ed. Brill, Leiden Boston, pp. 216-232.

Gresch, D., Boettcher, S., van Ede, F., & Nobre, A. C. (2021). Shielding working-memory representations from temporally predictable external interference. Cognition, 217, 104915.

Nobre, A. C., & van Ede, F. (2018). Anticipated moments: temporal structure in attention. Nature Reviews. Neuroscience, 19(1), 34-48.

UNIVERSIDAD
DE GRANADA

NEUROPSYCHOLOGY INTERNSHIP: NEUROPSYCHOLOGY CENTERS (In Spanish)

PRÁCTICAS NEUROPSICOLOGÍA 2022-2023

Este listado podrá ser objeto de modificaciones posteriores por cambios imprevistos en los centros colaboradores.

CENTROS COLABORADORES EN GRANADA

HOSPITAL UNIVERSITARIO DE SAN RAFAEL. CENTRO INFANTIL DE ATENCIÓN TEMPRANA (CAIT)

Nº de plazas: 2
Tutores: Armando Montes Lozano, Raquel Carrillo, Cristina Hidalgo y Mª Valle Matres.
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Horario: Mañanas y tardes.

El Centro Infantil de Atención Temprana (CAIT) de San Rafael atiende a niños/as que sufren trastornos del neurodesarrollo (Trastornos del Espectro Autista, Trastornos Específicos del Lenguaje, Discapacidad Intelectual, Trastornos por Déficit de Atención con y sin Hiperactividad…) o presentan factores de riesgo social. Las principales actividades que se desarrollan en él se centran en la evaluación y tratamiento de esta población.

AGREDACE (Asociación Granadina de Familias para la Rehabilitación del Daño Cerebral Adquirido)

Nº de plazas: 2
Tutores: José María Torralba Muñoz y Joaquín Pavón Pérez
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Domicilio: Calle Poeta Vicente Aleixandre, 4 18015 Granada.
Horario: Mañanas y tardes.

La población que se atiende en AGREDACE es casi en su totalidad adulta, en un rango de edad que oscila entre los 25 y los 60 años, afectados por diversas causas de daño cerebral adquirido, normalmente accidentes cerebrovasculares y traumatismos craneoencefálicos. Entre las actividades que el centro realiza se incluyen:
Evaluación y diagnóstico neuropsicológico.
Rehabilitación cognitiva.
Talleres y terapias grupales para afectados.
Taller para familiares.

CENTRO DE PSICOLOGÍA Y LOGOPEDIA ROCÍO RUIZ

Nº de plazas: 1
Tutora: Rocío Ruiz
Email de contacto: rociorupe@gmail.com
Domicilio: Paseo de Colón 10, 1ºE. Albolote (Granada**).**
Horario: 15:00 a 21:00 h., de lunes a viernes.

El Gabinete atiende fundamentalmente a niños/as que sufren trastornos del neurodesarrollo (Trastornos del Lenguaje, Trastornos por Déficit de Atención con/sin Hiperactividad, Trastornos del Espectro Autista…) o dificultades en el aprendizaje (Dislexias, Discalculias). Las actividades realizadas en el centro se dirigen hacia la evaluación y, fundamentalmente, el tratamiento de esta población, junto con el apoyo emocional y asesoramiento de las familias, tratando de conseguir una mejora en la calidad de vida de estas.

NEDEA CENTRO DE NEURODESARROLLO INFANTIL

Nª de plazas: 2
Tutora: Genma Rodríguez Melchor
Email de contacto: genmarm@gmail.com
Domicilio: Calle Torre de la Vela, 7, 18008, Granada**.**
Horario: Lunes a Viernes de 16 a 21h**.**

NEDEA es un centro de atención especializada a niños y jóvenes con alguna dificultad en su desarrollo o en su etapa de aprendizaje a través de diferentes servicios integrales que incluyen neuropsicología, psicología infantil, logopedia, terapia ocupacional, atención temprana, y neurofeedback. Las actividades en las que participan los alumnos son: entrevista de acogida, evaluación neuropsicológica y diagnóstico, elaboración de informes, desarrollo de programas de intervención, sesiones de intervención neuropsicológica, talleres grupales, sesiones de neurofeedback, elaboración de material de intervención.

CONSULTA DE PSICOLOGÍA, NEUROPSICOLOGÍA Y LOGOPEDIA FRANCESCA MARTÍN

Nº de plazas: 1
Tutora: Francesca Martín García.
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Domicilio: C/ Corral del Veleta, Edif. Madrid. Portal 3. Bajo A. Bola de Oro. Granada.
Horario: De lunes a viernes, de 16:00 a 21:00 h.

Línea de Trabajo en el centro: Evaluación, diagnóstico e intervención psicológica, neuropsicológica y logopédica en adultos y niños. La mayor parte de nuestros pacientes son niños con trastornos del desarrollo, retraso del lenguaje y dificultades de aprendizaje. El protocolo habitual consiste en realizar una evaluación exhaustiva de cada caso, elaborar un informe con los resultados de la evaluación, criterio diagnóstico y recomendaciones a seguir y planificar un programa de intervención. Es habitual la visita a centros escolares, CAIT, etc. a fin de coordinar la intervención con el resto de profesionales implicados en cada caso.

RESIDENCIA DE MAYORES "ENTREÁLAMOS"

Nº de plazas: 2
Tutoras: Zulema Restoy Guindos.
Email de contacto: psicología@entrealamos.com
Domicilio: Camino de Caparacena s/n, Atarfe (Granada).
Horario: De lunes a viernes, de 9 a 14 h.

La residencia "Entreálamos" es un centro privado-concertado que acoge personas mayores de 60 años. Estos residentes, pueden tener un desarrollo normal en su vejez, o pueden sufrir procesos patológicos que dificultan la autonomía en la vida diaria (demencias, accidentes cerebro-vasculares, problemas psiquiátricos, etc.). La labor que realizan los alumnos de prácticas consisten en evaluación, elaboración de informes, talleres grupales de estimulación cognitiva y tratamiento neuropsicológico.

INTEA. Centro de Intervención y Desarrollo especializado en Trastornos del Espectro del Autismo

Nº de plazas: 1

Tutora: Anastasia Muñoz Lastra y Andrea Fernández Lerchundi.

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Domicilio: Avda. Fernando de los Ríos, 11.

Horario: Contacto con tutora.

El/la estudiante realizará las siguientes actividades:

- Observación de la intervención que se lleve a cabo.
- Intervención en los distintos contextos en los que se desarrolla una persona con autismo.
- Puesta en práctica de lo aprendido con intervención directa en personas con TEA.
- Manejo de escalas de evaluación y diagnóstico.
- Aprendizaje de técnicas e instrumentos concretos que se aplican a autismo.

Actualización bibliográfica de la intervención e investigación en autismo.

Aprendizaje del abordaje en autismo dentro de un equipo interdisciplinar

AISSE SINERGIA

Nº de plazas: 1

Tutora: Paula Iglesias Rodríguez.

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Domicilio: Calle Pintor Manuel Maldonado 14 (entrada por Placeta Gutiérrez de Cetina).

Horario: Mañanas y tardes, de lunes a viernes.

AISSE S. Coop. And. Centro Sinergia es una cooperativa sin ánimo de lucro que trabaja con personas con afectación neurológica. El Centro Sinergia cuenta con un equipo transdisciplinar especializado en neurociencia clínica y formado por los servicios de neuropsicología, logopedia, terapia ocupacional y fisioterapia, que atiende a población adulta e infantil. Se realizan las actividades de: entrevista inicial y anamnesis, valoración neuropsicológica, emisión de informes, planificación de programas de neurorrehabilitación, seguimientos, así como talleres de adolescentes con alteraciones en el neurodesarrollo.

FUNDACION PURISIMA CONCEPCIÓN

Nº de plazas: 1
Tutora: Angie Burgos Pulido
Email de contacto: aburgos.granada@hospitalarias.es
Domicilio: C/ Pedro Machuca, 23.
Horario: Mañanas y tardes, de lunes a viernes.

Institución de las Hermanas Hospitalarias que atiende a personas de 3 a 65 años con diversidad funcional asociada a discapacidad intelectual y otros trastornos.
Cuenta con diferentes dispositivos (colegio, centro ocupacional, unidad de estancia diurna, servicios residenciales, centro especial de empleo, etc.) atendiendo a más de 400 usuarios.
Durante las prácticas se realizarán con la psicóloga en el Colegio de Educación Especial (Centro de Educación Especial Proveedor de Recursos y Servicios) donde se realizan tareas relacionadas con evaluación, intervención, asesoramiento interno y externo, trabajo con familias y profesionales, talleres de habilidades sociales, de educación afectivo-sexual, terapia de perros. En el centro se llevan a cabo diferentes proyectos relacionados con accesibilidad cognitiva, inclusión educativa, relación con otros centros, formación externa, etc.

CENTROS COLABORADORES FUERA DE LA PROVINCIA DE GRANADA

IMPARABLES. Instituto de Neurorrehabilitación Infantil

Nº de plazas: 1
Tutora : Auxiliadora Páez
Email de contacto: pilarmadueno@gmail.com.
Domicilio: C/Ángel Gómez Fuentes, 11. Almería. C.P.: 04007
Horario: 15:45 a 20:15

Imparables es un centro multidisciplinar que trabaja con población de todas las edades. Las actividades en las que se verá inmersa la persona de prácticas serán:

1. Toma de contacto con pacientes con diversos perfiles, tanto neuropsicológicos como clínicos: niños y adolescentes con NEE. trastornos del desarrollo, retraso en la adquisición de algún hito, adultos con enfermedades neurodegenerativas, pacientes con situaciones vitales complicadas, pacientes con síndromes o diagnósticos psicológicos, etc.
2. Elaboración de programas de intervención individualizados, en base a conocimientos adquiridos y a las características de cada paciente.

Estos programas deben incluir objetivos generales y específicos, la intervención adecuada para lograrlos así como un plan de seguimiento.

3. Aplicación de estos programas de manera óptima y ecológica, así como si evaluación y modificación si es necesario.
4. Evaluación a corto y medio plazo.
5. Diseño de nuevas herramientas y materiales de intervención, empleando nuevas tecnologías y métodos innovadores.

APADIS Bahía de Algeciras. Centro de Atención Infantil Temprana

Nº de plazas: 1
Tutora: Isabel Navarro
Email de contacto: inavarro@cop.es
Domicilio: Calle Patriarca Doctor Pérez Rodríguez, 38 - Algeciras (Cádiz)
Horario: Lunes, martes y viernes de 8:00 a 14:00. Martes, miércoles y jueves de 15:00 a 20:00

El CAIT APADIS atiende a niños con trastornos del neurodesarrollo o en riesgo de padecerlos; eminentemente, retraso evolutivo, trastorno del espectro autista, discapacidad intelectual, parálisis cerebral, trastorno específico del lenguaje y alteraciones asociadas. Dicha atención implica la valoración exhaustiva de las capacidades con especial atención al funcionamiento cognitivo, así como el tratamiento de los déficit identificados.

ADACCA. Asociación de Familiares de Pacientes con Daño Cerebral Adquirido de Cádiz

Nº de plazas: 1
Tutor : Francisco Javier San-Sabas Guerrero
Email de contacto: adacca@gmail.com
jsansabas@hotmail.com
Domicilio: Calle Eslovaquia, local 1.14-Parque Empresarial de Poniente- 11011 Cádiz.
Horario: a convenir

ADACCA realiza servicios de atención integral a pacientes con daño cerebral y familiares. Desde evaluación y rehabilitación neuropsicológica, logopedia, talleres para promover la autonomía y terapia familiar. La población atendida incluye a niños y adultos con daño cerebral adquirido.