



Programa - Posters

Sexta-feira, 13 de abril de 2018

09:15 - Afixação de Posters

17:30/19:30 - Sessão de Posters

1. Transcranial random noise stimulation (tRNS) on attention network test (ANT): An exploratory study

Alberto Lema (1), Óscar F. Gonçalves (1, 2), Sandra Carvalho (1, 2) e Jorge Leite (1, 2, 3)
(1) Universidade do Minho, (2) Harvard Medical School (USA), (3) Universidade Portucalense

Speed-accuracy tradeoff (SAT) refers to the adjustment between response speed and its accuracy. SAT is mediated through cortical and subcortical circuits that can be modulated by electric stimulation. We hypothesized that tRNS would increase performance in networks dependent on subcortical circuits whereas tDCS would increase performance in networks dependent on cortical circuits. Eighteen healthy students undertook three experimental sessions of tDCS, tRNS and sham over the left dlPFC while performing the Attention Network test. This task targets two subcortical networks (alerting and orienting) and a cortical networks (executive). Results showed that SAT was successfully manipulated by instruction conditions ($p < .01$), but not by stimulation. TRNS showed a tendency towards improving conflict resolution in executive network ($p < .10$).

2. Processamento inconsciente e controlo executivo: Estudo usando chromatic flicker fusion

Fábio Silva, Joana Dias, Samuel Silva, Pedro Bem-Haja, Carlos F. Silva e Sandra C. Soares
Universidade Católica Portuguesa, Universidade de Aveiro

O controlo cognitivo e o seu efeito nos mecanismos atencionais facilita a deteção e adaptação a informação conflituosa. Considerando estudos recentes, que demonstram um papel menos restrito no processamento de informação inconsciente, o controlo cognitivo foi sugerido como sendo modulado por informação subliminar. Contudo, a literatura apresenta resultados inconsistentes relativamente a essa proposta. No presente estudo, foi utilizada uma técnica de supressão visual, a Chromatic Flicker Fusion, adequada à exploração de processos atencionais associados ao controlo executivo. Através de uma flanker task, reportamos que, perante informação suprimida por CFF, os processos de deteção e adaptação ao conflito, não foram observados. Ainda que evidenciando efeitos low-level, o estudo aqui presente sugere limitações no alcance do processamento de informação inconsciente.

3. Conscious and unconscious attentional processing to conflict in videogame players

Joana Dias, Fábio Silva, Samuel Silva, Pedro Bem-Haja, Carlos F. Silva e Sandra C. Soares
Universidade de Aveiro

The executive control of attention is crucial to detect and deal with conflict, even at an unconscious level. Recent research on the effects of videogames suggests improvements in the attentional skills of videogame players (VGPs), compared to non-videogame players (NVGPs). However, no study has yet investigated whether these effects are restricted to conscious processing. We used a Flanker Task and compared the processing of flankers in masked (using the Chromatic Flicker Fusion technique) and visible conditions. Our results show that VGPs were faster than NVGPs and equally accurate in masked and visible conditions, although there was no significant interaction between condition and group. This suggests that VGPs are better at producing an appropriate response to stimuli even in masked conditions.

4. Exogenous attention and memory for faces following contextual behavioural immune system activation

Ana Cláudia Magalhães, Josefa Pandeirada, Natália Lisandra Fernandes e Sandra Soares
Universidade de Aveiro

Attention and memory evolved to enhance the organism's chances of survival and have been proposed to play an important role in the behavioural immune system (BIS). The present study investigated the effects of a contextual activation of the BIS—via priming with infectious disease concerns or non-infectious disease concerns (control)—on attention and memory for neutral faces. The results showed that participants in the infectious disease condition were more accurate in the attentional task than control participants. No significant difference between groups was found regarding the recognition task. Overall, these results suggest that the BIS might be associated with a hypervigilant state towards cues in general and that this type of priming may not be sufficient to activate mnemonic mechanisms.

5. Attentional bias and behavioral inhibition in children: An eye-tracking study

Catarina Fernandes, Luís Faísca e Ana Teresa Martins
Universidade do Algarve

Behaviorally inhibited children present a temperamental pattern characterized by fear and avoidance in response to unfamiliar or novel stimuli. Previous studies suggest that attention biases to threat can sustain behavioral inhibition (BI) over time, linking early temperament to later social withdrawal. Nevertheless, there are several open questions concerning attention bias in behaviorally inhibited children. To characterize the time course of attentional response to threat, forty children (2-9 years old) completed a free-viewing eye-tracking paradigm with emotional faces and a BI laboratory-task. The results revealed an association between higher levels of BI and the maintenance of attention to angry and neutral faces. The data provide further support for models associating attention with anxiety development.

6. Visuo-spatial cognition in two different visual surrounding environments: A study with adolescents

Pedro Rodrigues e Josefa Pandeirada
Universidade de Aveiro

Visuo-spatial cognition is typically studied using computerized tasks in which targets and distractors are shown in the computer screen. However, little is known about the influence of a visually-enriched surrounding environment on cognitive performance, particularly in adolescents. Our goal was to explore whether a high-load vs. a low-load visual surrounding environment influences adolescents' cognitive performance as measured by simple cognitive tasks. Sixty-four adolescents (13-17 YO) responded to four visuo-spatial cognitive tasks (attention and memory) in a high- and a low-load environment in two different sessions. Overall, the results revealed that cognitive performance was impaired in the high-load environment (e.g., fewer hits and more false alarms). Our findings are discussed in light of the existent theories; potential practical implications are considered.

7. Effects of marker modality and marker modality probability on the localization of a visually moving object in a flash-lag audiovisual setting

Cláudia Reis (1) e Armando Mónica Oliveira (2)
(1) Instituto Politécnico de Coimbra, (2) Universidade de Coimbra

A flash-lag setting with a circle moving along one of three possible trajectories (horizontally shifted) and either spatialized audio or visual beeped/flashed stimulus (markers) presented above the beginning, middle or end of each trajectory, was used across tasks. Tasks differed on the relative probability of audio and visual markers (0, 25, 50, 75, 100%). Participants localized (with a wireless mouse) either the position of the moving circle or of the marker (in different blocks). Effects of modality were observed, with the auditory marker resisting the flash drag effect and a less forward localization of the moving circle with auditory markers. Modality probability also showed an effect, with a tendency for weaker modality effects at the point of maximum uncertainty (50%).

8. The role of cortical areas hMT/V5+ and TPJ on the magnitudes of representational momentum and representational gravity: A transcranial magnetic stimulation study

Nuno De Sá Teixeira, Gianfranco Bosco, Francesco Lacquaniti e Sergio Della Monache
Universidade de Roma (Italy), Universidade de Coimbra

The perceived vanishing location of a moving target is systematically displaced forward, in the direction of motion (RM), and downwards, in the direction of gravity (RG). The present work sought to clarify the neurophysiological substrates of these phenomena. Activity in cortical areas hMT/V5+ and TPJ, thought to bear upon RM and RG, was disrupted with an offline TMS protocol. Observers were required to locate the vanishing position of a smoothly moving target. Gaze position of both eyes was recorded at 500Hz, as were the horizontal and vertical coordinates of the localization responses. Disrupting cortical area hMT/V5+ significantly affected ocular overshoot and increased RG; conversely, TPJ stimulation led to an increase in RM, with no contingent change in oculomotor behaviour.

9. Material spatialized sounds, but not pure and non-spatialized sounds, can induce representational friction effects

Cristina Nazaré (1) e Armando Mónica Oliveira (2)
(1) Instituto Politécnico de Coimbra, (2) Universidade de Coimbra

Material sounds suggestive of two distinct levels of friction were added to a standard representational friction task. A moving square that suddenly vanished travelled horizontally in isolation, on a thin line, or on a thick band whose upmost layer was pushed ahead by its leading edge. Across different blocks, sounds were spatialized and non-spatialized. This was replicated with two pure sounds corresponding to the best f0 estimate of the material sounds, which were again spatialized and non-spatialized across blocks. Participants located the last seen position of the moving square upon its vanishing. Reductions of the forward localization error, known as "representational friction", were obtained with material spatialized sounds only, and could not be predicted by a Bayesian audiovisual integration model.

10. Evaluation of depth perception in an autostereoscopic 3D display

Emanuel Silva (1), Carlos Silva (2), Emanuel Sousa (2), Inês Fortes (2), João Pedro Ferreira (3), Vera Vilas-Boas (3) e Jorge A. Santos (1)
(1) Universidade do Minho, (2) Centro de Computação Gráfica, (3) BOSCH Portugal

Autostereoscopic 3D displays allow viewing 3D content without additional equipment. To create design guidelines, the just noticeable difference (JND) in perceived depth, and the point of subjective equality (PSE) between two stimuli were assessed in two experiments. The first experiment tested the effect of stimuli color, and the second the effect of stimuli longitudinal separation. In both experiments, we found that to perceive a depth difference between two items (one at screen level) on the display, a minimum depth difference of 3.38-mm is necessary (JND). Generally, when both items are presented at screen level, they are perceived as being in the same plane (PSE). In some conditions, stimuli color influenced depth perception. No effects were found in the second experiment.

11. Modelling voter turnout behaviour: An experimental approach

Teresa Neiva Forte e Nuno De Sá Teixeira
Universidade de Coimbra

Understanding the interplay of factors that explain voter turnout has been an important research goal ever since Down (1956) proposed his decision-based model. Despite numerous critics on socio-political grounds, the validity of this and alternative proposals as psychological models has seldom been tested. The present work took advantage of Information Integration Theory to fill this gap. Participants were required to rate the likelihood of casting a ballot given hypothetical scenarios, in a repeated measures design, resulting from the combination of relevant factors identified in the literature. Outcomes revealed the prevalence of two clusters of participants, none conforming to Down's predictions. Importantly, these were found to be linked to disparate political attitudes. Results are discussed within current theories of voter turnout.

12. Mother's social touch patterns and preterm medical risk: An exploratory study

Juliana Serra, Joana Baptista, Vanessa Moutinho, Isabel Soares, Hercília Guimarães, Fátima Clemente, Sara Almeida e Alfredo Pereira,
Universidade do Minho

This study aimed to explore social touch patterns of ten mothers interacting with their preterm children (aged 12 months old) in three play tasks: free play with toys, free play without toys, and play with a challenging toy. Infants were divided in high/low medical risk preterm. Touch patterns were coded in ELAN following the Mother Touch Scale (Stepakoff, 1999; Stepakoff et al., 2007) a microanalytic system of coding social touch in mother-child interaction. The results show that low risk preterm mother's touch more, for longer in the free play without

objects task (compared to the object exploration tasks) and, generally, touch lesser and for less time in their children when they were performing object-oriented tasks than high risk preterm mothers.

13. O olhar sobre a criança e o adulto: Diferenças nas inferências deliberadas de traços de personalidade

Miguel F. Benrós, Mara D. Santos e Sara Hagá
Universidade de Lisboa

A facilidade com que as pessoas inferem traços de personalidade é fascinante. No entanto, a investigação tem-se centrado sobretudo nas inferências que adultos fazem sobre a personalidade de outros adultos. Será que fazem inferências semelhantes relativamente a crianças? Neste estudo, 62 adultos leram descrições de comportamentos, cada um associado à fotografia do seu suposto ator: criança ou adulto. Depois avaliaram os atores relativamente ao traço implicado pelo seu comportamento. No geral, os participantes fizeram inferências de traço menos extremas para crianças do que para adultos, principalmente quando os traços contrariavam os estereótipos etários. Estes resultados expandem o conhecimento sobre como as crianças são percebidas socialmente e sobre as crenças que os adultos têm acerca da personalidade das crianças.

14. While you're young it's acceptable: Perceived acceptability of discriminatory statements targeting children

João O. Santos e Sara Hagá
Universidade de Lisboa

One would surely feel outraged by a sign stating "No Blacks allowed" at the door of a restaurant. But what if it read "No children allowed"? Are we so used to special treatment towards children that we fail to recognize discriminatory practices? 112 participants read a set of statements targeting minority groups, children, or pets, and rated their acceptability. Participants perceived the same discriminatory statements as more acceptable when directed at children or pets than at minorities. This suggests that people may be childist (i.e., prejudiced and discriminate against children) without realizing it. Based on these findings and other indicators, I'll discuss the importance of addressing this social issue and how understanding childism may further our understanding of other 'isms'.

15. Emotional recognition and empathy in deaf and blind adults

Ana Teresa Martins, Helena Vieira, Gabriela Gonçalves e Luís Faísca
Universidade do Algarve

A poorly understood aspect of social cognition in sensory impaired individuals is how they process emotional stimuli. In this study we assess the ability to recognize emotions in 15 hearing impaired (HI) participants (32.4 ± 8.1 yrs) and in 15 blind participants (48.3 ± 10.5 yrs), both compared to their respective non-impaired matched controls. Stimuli expressing six basic emotional states (happiness, sadness, fear, anger and neutral) were presented to participants (Florida Affect Battery). Participants also performed an empathy test. The results suggested a poor fear recognition in HI participants compared to controls and inferior levels of cognitive empathy. Blind participants showed difficulties in emotional prosody of sentences. The sensory limitations may hinder social-perception skills when processing multisensorial information is required.

16. Diferenciação ou globalização? Uma abordagem linguística ao estereótipo racial

Sara Varatojo, Matilde Barata, Diogo Gonçalves e Teresa Garcia-Marques
ISPA-Instituto Universitário

Os termos que utilizamos para definir pessoas são construções sociais que sofrem alterações ao longo do tempo, pelo contacto com diferentes culturas. Neste estudo, analisamos quão ofensivos são considerados os termos utilizados por diferentes nacionalidades para definir o exogrupo dos negros. Os dados que compararam o uso de termos no próprio país e na cultura americana revelam que Portugal é o único país entre os estudados que se distingue do padrão americano, visto que "preto" é considerado mais ofensivo do que "negro". Os dados revelam igualmente, em Portugal, uma elevada correlação entre o nível em que todos os termos são considerados ofensivos.

17. O impacto dos contextos sociais e de isolamento na expressão de estereótipos

Pedro Figueira e Teresa Garcia-Marques
ISPA-Instituto Universitário

Investigação em facilitação social sugere que os contextos sociais modelam diferentes características do processamento cognitivo, como a difusão da activação mental e os níveis de controlo e monitorização cognitiva. Nesta comunicação abordamos estes dois mecanismos cognitivos quando envolvidos em processos de estereótipização, procurando perceber os resultados contraditórios da literatura; resultados que sugerem tanto que contextos sociais aumentam como que diminuem a manifestação estereotípica. Utilizando o Diffusion Model (Ratcliff & Rouder, 1998) estimaram-se parâmetros de activação de informação decisional (V), e de tempo não-decisional (t0), associado à monitorização, contrastando-se o desempenho dos participantes em contextos sociais e de isolamento. Os resultados indicam que o contexto dita os mecanismos usados no controlo dos estereótipos, que quando disponíveis diminuem a manifestação estereotípica.

18. Portuguese version of the short form of the Attitudes to Ageing Questionnaire

Carolina Cunha, Teresa Limpo e São Luís Castro
Universidade do Porto

This study examines the psychometric properties of the Portuguese short form of the Attitudes to Ageing Questionnaire (AAQ) in a sample of 236 Portuguese elders ($n=236$; 60 years). The short form of the AAQ is composed of 12 items measuring three domains: psychosocial loss, physical change, and psychological growth. Confirmatory factor analyses confirmed this three-factor structure. Further validity evidence was given by the good reliability coefficients and moderate-to-high inter-item and item-total correlations. The pattern of correlations between AAQ and measures of personality, depression, anxiety, and quality of life was also in the expected direction. Overall, this study offers a valid and reliable instrument for clinical and experimental research into aging in the Portuguese population.

19. Evaluating musicality in the general population: Portuguese version of the Goldsmiths Musical Sophistication Index (Gold-MSI)

Ana Isabel Correia (1), Daniel Müllensiefen (2), São Luís Castro (1) e César F. Lima (3)
1) Universidade do Porto, (2) University of London (UK), (3) ISCTE-Instituto Universitário de Lisboa

The Goldsmiths Musical Sophistication Index (Gold-MSI; Müllensiefen, Gingras, Musil, & Stewart, 2014, PLOS ONE) is a self-report measure of musical skills and behaviours in the general population. In this study, we translated the Gold-MSI to European Portuguese and

evaluated it with a Portuguese sample (N = 408; age range = 17 – 66 years; 306 women). We demonstrate that all subscales have appropriate psychometric properties, and confirmed the expected underlying factor structure. Additionally, we identified associations between individual differences on the Gold-MSI and socio-demographic factors (age, sex, education, socio-economic status), personality traits, and music preferences. The Portuguese Gold-MSI offers a reliable and valid tool that can contribute to the refined assessment of musical sophistication in a range of research contexts.

20. The Objects-on-Hands Picture Database: Development and validation

Natália Lisandra Fernandes (1), Josefa Pandeirada (1, 2) e James Nairne (2)

(1) Universidade de Aveiro, (2) Purdue University (USA)

Pictures are widely used in research. We developed a high quality picture set, comprising photographs of objects from six different categories (women's accessories, fruits, kitchen utensils, office supplies, toys, vegetables), recorded under two camera viewpoints (top- and frontal-viewpoint), and five conditions (on its own, held by clean hands, and held by hands covered with three substances: sauce, chocolate and mud). We present the procedures used to create the database and data regarding name agreement and familiarity collected in two countries (USA and Portugal). The use of photographs increases studies' ecological validity. Additionally, being able to use variations of same stimuli will allow researchers to test exactly the same item while varying their presentation conditions, avoiding item-selection concerns.

21. Rushing to the end: Why it may happen in your online surveys

João Martins, Leonor Lavradio e Teresa Garcia-Marques

ISPA-Instituto Universitário

More and more social sciences studies are now acquiring data through the internet, reaching participants online. Some participants start out engaged and motivated but progressively slide into "rushing behaviors". Here we present results from two online surveys: the first in an open question format, allowing to identify Repetition, Survey length and No interest in topic, as the three main features that underlie motivation to rush; subsequently, in a direct questionnaire, we clarify how participants define each of these and their implications in how they rush to the end. In addition, our study offers data on participant expectations regarding payment and how this influences reactions to rushing factors.

22. The impact of musical training on music-unrelated cognitive skills of first-graders

Sara Dias, Ana Rita Oliveira, Joana Gouveia, Marta Martins, Susana Silva e São Luís Castro

Universidade do Porto

Using a longitudinal approach, we examined the effects of musical training on reading-related skills, fluid intelligence, executive functioning and numerical cognition of first-grade 6-to-7-year-olds. Children were pre-tested at the onset of the school year, assigned to either musical training, basketball training or control groups, and they were post-tested after 9 months. Compared to the control group, the music group showed stronger enhancements in verbal working memory, phonological awareness, fluid intelligence and executive functioning, while the basketball group only did so for fluid intelligence. Numerical cognition showed no effects of music or basketball training. Our findings highlight the privileged potential of musical training to foster music-unrelated skills in early school-years.

23. Neural and behavioral evidence of enhanced auditory statistical learning in musicians

Margarida Vasconcelos (1) e Ana P. Pinheiro (2)

(1) Universidade do Minho, (2) Universidade de Lisboa

The present study tested the effects of musical training on the neural processing of statistical regularities in linguistic input. In order to examine the neural signature of speech segmentation, musicians and non-musicians performed an artificial grammar learning task composed trissyllabic prosodic pseudo-words while Event-Related Potentials were recorded. After actively listening to the artificial grammar, subjects completed an auditory forced-choice task. Musicians outperformed non-musicians in the learning of prosodic words. At the electrophysiological level, a negative component emerged between 250–300 ms after words' onset showing increased amplitude in musicians for all topographical sites. The results suggest musical expertise to enhance the sensitivity to the statistical properties of linguistic input and to modify the capacity to segment speech.

24. Hear my face and look at my voice: Probing multisensory emotional processing

Maria Amorim e Ana P. Pinheiro

Universidade de Lisboa

Studies concerned with the cognitive mechanisms underlying emotional processing usually employ visual (e.g. faces) or auditory (e.g. vocalizations) stimuli. However, in our daily lives, we are more frequently exposed to multisensory cues, decoding emotional information that is simultaneously communicated in the auditory (voice) and visual (face) modalities. Nonetheless, there is still a dearth of data on how emotion is decoded from multisensory cues. This study aimed to validate a set of multimodal (videos) emotional stimuli to use in future experiments. Participants were asked to rate affective (positive, negative and neutral) auditory-only, visual-only and audiovisual stimuli regarding its arousal, valence and expressiveness. The findings of the current study aim to enhance future research probing multisensory emotional processing.

25. Picture norms for emotional, semantic and perceptual dimensions: A Portuguese standardization of 360 real-world coloured photographs

Cristiane Souza (1), Margarida V. Garrido (1) e Joana C. Carmo (2)

(1) ISCTE-Instituto Universitário de Lisboa, (2) Universidade de Lisboa

The establishment of norms for naturalistic images of common diversified items becomes fundamental for the quality of experimental designs using visual stimuli. Portuguese normative studies have been conducted using different types of visual stimuli (i.e., icons, emojis, drawings) however photographs of daily-life common items have not been systematically validated. Photographs constitute good representations of reality and may provide a higher ecological validity to the studies. The present study established norms for 360 coloured photographs of daily-life items in Portuguese culture for perceptual, emotional and semantic dimensions. Descriptive results are provided considering the categories of the images. These norms for daily-life photographs may contribute to understand their influence in image processing, and increase the quality of future studies.

26. ANEW-audition database: Auditory affective norms for European Portuguese

Catarina Rosa, Pedro-Bem-Haja, Carlos F. Silva, Miguel M. Gonçalves, Marta Lopes, Luís Zeferino e Rafael Araújo
Universidade de Aveiro, CINTESIS, Universidade do Minho

The number of studies analyzing the emotional interference based on communicational prosody is reduced. This gap is due to the complexity of auditory stimuli, and the difficulty to ensure that every word that is said triggers a congruent emotional response. This study aimed to constitute a database of emotional words in audio format. 120 visual format words were selected from the Portuguese adaptation of ANEW (Affective Norms for English Words). Each word was spoken with corresponding emotional prosody by a male, and a female Portuguese native speaker. These auditory stimuli were rated for valence and arousal by a sample of 120 participants. The ANEW-audition database provides short-duration auditory stimuli for experimental investigation, and affective norms for European Portuguese.

27. Implicações da sintomatologia de ansiedade no reconhecimento e comparação de faces neutras

Inês Pereira de Brito, Paulo Joaquim Rodrigues e Paula Saraiva Carvalho
Universidade da Beira Interior

As faces humanas são estímulos não verbais significativos na aquisição de informação na comunicação interpessoal, sendo este processamento influenciado por características psicológicas individuais. Consequente, nesta investigação propomo-nos estudar as implicações da sintomatologia de ansiedade no reconhecimento e comparação de faces neutras. Estamos a utilizar, numa amostra de estudantes universitários, com idade igual ou superior a 18 anos e sem défice visual, um questionário sociodemográfico, o STAI-Y, o BSI e a avaliar o tempo de resposta e percentagem de acertos no reconhecimento e comparação de faces neutras através do teste de reconhecimento de faces de Glasgow modificado. Atualmente encontramos-nos na recolha de dados e até à data do congresso pretendemos apresentar os resultados e as respetivas conclusões do estudo.

28. Influência dos níveis de empatia na capacidade de reconhecimento e comparação de faces neutras

Sara de Deus Cruz
Universidade da Beira Interior

Nos seres humanos os estímulos não verbais, nomeadamente as faces das pessoas com quem interage, influenciam a construção da experiência social. Por isso, tendo em conta que a comunicação interpessoal, é influenciada pela empatia do observador, propomo-nos estudar a influência da destina na capacidade de reconhecimento e comparação de faces neutras. Para o efeito utilizamos o Interpersonal Reactivity Index (IRI) para avaliar a componente afetiva e cognitiva da empatia, comparando tempos de resposta e percentagens de acertos em duas versões do Glasgow Face Matching Test (GFMT), a original e uma modificada. Neste momento encontramos-nos em fase de recolha de dados, com cerca de 100 sujeitos recolhidos, sendo que à data do congresso já teremos resultados preliminares.

29. O impacto da alexitimia no reconhecimento facial

Diana Duarte, Paula Saraiva Carvalho, Paulo Joaquim Rodrigues, Inês Brito e Sara Cruz
Universidade da Beira Interior

Diversos estudos têm demonstrado o impacto de alterações psicológicas no reconhecimento das emoções, no entanto, são ainda escassos os trabalhos que procuram compreender a implicação desses sintomas no reconhecimento de faces neutras. Este trabalho pretende avaliar a relação existente entre elevados índices de alexitimia e a capacidade de reconhecer e comparar faces. Para este estudo foi selecionada uma amostra, por conveniência, de estudantes da Universidade da Beira Interior, com idade superior a 18 anos e sem défice visual. Para a recolha de dados foram utilizados os seguintes instrumentos: questionário sócio-demográfico; Brief Symptom Inventory; 20-item Toronto Alexithymia Scale; Teste de Glasgow modificado. A recolha encontra-se a decorrer, pelo que serão posteriormente apresentados os resultados obtidos e as implicações para a intervenção.

30. Spotting perpetrators with facial EMG: Corrugator and zygomaticus activation pattern in eyewitness performance

Pedro Bem-Haja (1), Isabel M. Santos (1), Hugo de Almeida (1), Mariana Carrito (2), Beatriz Oliveira (1) e Carlos F. Silva (1)
(1) Universidade de Aveiro, (2) Universidade do Porto

The number of errors in eyewitness testimony is very large and can have catastrophic social consequences, when an innocent is convicted. The present study aimed to identify psychophysiological markers of performance in lineup identification based on facial electromyography. Since criminals are emotionally negative and salient for eyewitnesses, a greater contraction in the corrugator supercilii and a lower contraction of the zygomaticus major was expected for these stimuli, in comparison to distractors. The results confirmed the predicted pattern of activation of these facial muscles when a criminal is seen, regardless of whether they are objectively identified as the perpetrator of the crime. These results suggest that facial muscle activity might provide relevant markers of target recognition in eyewitness testimony.

31. Efeito da autoaversão na memória para faces emocionais

Diana João (1), Rafael Ferreira (2), Pedro Bem-Haja (1, 3), Sónia Santos (1), Paula Vagos (4), Carlos F. Silva (1, 3), Paula Castilho (2) e Isabel M. Santos (1, 3)
(1) Universidade de Aveiro, (2) Universidade de Coimbra, (3) CINTESIS, (4) Universidade Portucalense

O presente estudo teve como objetivo analisar de que forma os níveis de autoaversão (sentimentos de repulsa dirigidos para o próprio) podem influenciar a memória para estímulos emocionais e os correlatos psicofisiológicos deste processo, através do registo de ECG. Era pedido aos participantes que memorizassem e posteriormente recordassem faces de alegria, nojo e medo. Os resultados revelaram diferenças significativas, na atividade cardíaca, entre a alegria e o nojo e marginalmente significativas entre o medo e o nojo, apenas no grupo de elevada autoaversão, durante a fase de aprendizagem da tarefa. Ao nível comportamental não foram encontradas diferenças entre as condições experimentais. Estes resultados apresentam evidências do processamento diferencial da emoção de nojo em indivíduos com elevados níveis de autoaversão.

32. Alpha asymmetry and beta/alpha power ratio as markers of emotional response to movie clips with violent content

Pedro J. Rosa (1, 2, 3), Joana Carvalho (1), Miguel Patacas (3), Filipe Carneiro (3) e Patrícia Guerreiro (3)
(1) Universidade Lusófona de Humanidades e Tecnologias, (2) ISCTE-Instituto Universitário de Lisboa, (3) Instituto Superior Manuel Teixeira Gomes

Studies targeting cognitive and emotional processing of violence stimuli do not consider the effects of sexual violence. This study examined whether sexual versus non-sexual violence induce specific activation and valence patterns. Twenty men were exposed to three 30-second movie clips: 1) a raping scene, physical (non-sexual) violence against woman scene, and a non-violent male-female interaction scene while their cortical activity was measured through a 14 -channel EEG cap at 128 Hz. Preliminary findings do not show significant effects across

scenes. However, the results' pattern suggest that the raping scene induces more positive valence and less activation than the physical violence scene. Findings add to the discussion on the psychological factors contributing to the dismissal of sexual violence as real violence.

33. A emergência de emoções na vivência de conflitos grupais

Tânia Martinho, Cláudia Dantas, Cláudia Figueiredo, Isabel Dimas e Sandra C. Soares
Universidade de Aveiro

As emoções desempenham um papel fundamental nas situações conflituais, na medida em que todo o conflito é fonte de tensão. O presente estudo, de carácter experimental, tem como objetivo explorar a relação entre o conflito grupal e as emoções vividas pelos membros do grupo. Tendo por base uma amostra composta por 10 grupos, distribuídos por duas condições experimentais – condição controlo (CC) e condição conflito de tarefa (CT) – procurou-se analisar a emergência de emoções positivas e negativas no decorrer de uma interação durante a qual os sujeitos desenvolviam, em grupo, duas tarefas. Os resultados preliminares revelam que os sujeitos da CC revelam mais emoções positivas e menos emoções negativas do que os da CT.

34. O impacto da autoaversão no processamento de expressões faciais de emoção

Rafael Ferreira (1), Diana João (2), Pedro Bem-Haja (2, 3), Paula Vagos (4), Isabel M. Santos (2, 3) e Paula Castilho (1)
(1) Universidade de Coimbra, (2) Universidade de Aveiro, (3) CINTESIS, (4) Universidade Portucalense

O presente estudo teve como principal objetivo explorar a influência da autoaversão na proporção de respostas corretas e no tempo de reação na identificação de expressões faciais de emoção dinâmicas. Numa amostra comunitária foram recrutados 49 participantes, categorizados consoante o seu nível de autoaversão, para uma tarefa laboratorial de reconhecimento de expressões faciais de emoção dinâmicas. Verificou-se que o grupo de elevada autoaversão demonstrou tempos de reação maiores na identificação das emoções básicas de medo, nojo, raiva e surpresa. Igualmente, reporta-se uma associação entre a autoaversão e a proporção de acertos na emoção de medo. Estes resultados sugerem que a autoaversão influencia o reconhecimento e processamento das expressões faciais das emoções referidas e corroboram as hipóteses em estudo.

35. Correlates of male sexual and emotional responses to rape: A pupillometric study

Joana Carvalho (1), Daniela Gonçalves (1), Daniela Mogo (1) e Pedro J. Rosa (1, 2, 3)
(1) Universidade Lusófona de Humanidades e Tecnologias, (2) ISCTE-Instituto Universitário de Lisboa, (3) Instituto Superior Manuel Teixeira Gomes

This study evaluated the personality and psychosexual correlates of the sexual and emotional responses to rape. Thirty-six men were exposed to a raping scene. Pupil dilation, self-reported emotions and sexual arousal to the scene were evaluated. Findings showed that larger pupil dilation to the scene was significantly associated with openness, (less) conscientiousness, and impulsiveness. Also, increased subjective sexual arousal to the raping scene correlated with a manipulative and powerful style. Raping myths and extraversion were associated with the endorsement of more positive emotions to the scene. The current findings add to the literature by suggesting that a set of psychological markers may increase the likelihood of male sexual offending behavior, through its influence on the emotional appraisal of sexual violence.

36. Benefits of expressive writing in the geriatric population

Daniela Alves, Teresa Limpo e São Luís Castro
Universidade do Porto

Research already proved the benefits of expressive writing, that is, writing about thoughts and emotions associated with traumatic experiences (Frattaroli, 2006). However, few studies focused in the geriatric population. In this study, 10 women – without cognitive deficits and ages from 67 to 94 years – were randomly assigned to an experimental and control group, matched for age, education, and Mini-Mental State Examination score. During 15 min across five days, experimental participants wrote about their traumatic experiences, while control participants wrote about their daily routines. Results showed that, after writing, the experimental group reported a higher quality of life in physical and psychological domains than the control group. Expressive writing seems a useful tool to improve quality of life in the elderly.

37. Affective priming effects in duration judgments

Alexandre Fernandes e Teresa Garcia-Marques
ISPA - Instituto Universitário

Emotion affects our perception of time. Previous research has shown that visible emotional stimuli expand its perceived duration. Differences in arousal and its impact in the functioning of a hypothetical “internal-clock” are generally presented as the main explanation of this effect. However, the hypothesis of unconscious influence of emotion in perception of time is still evidence lacking. We test this assumption using an affective priming paradigm with subliminal prime presentation (30ms) prior to a neutral target face varying in duration. Results showed that neutral targets primed with emotional faces were underestimated when compared to neutral ones, contradicting the arousal hypothesis. Using complementary data from reaction times and psychophysiological measures (EMG, heart rate and skin conductance) we discuss alternative explanations.

38. Resposta eletrodérmica ao tecnostresse: Um estudo com a visualização de imagens da Lusophone Technostress Image Database (LTID)

Pedro J. Rosa (1, 2, 3) e Susana Barata (1)
(1) Universidade Lusófona de Humanidades e Tecnologias, (2) ISCTE-Instituto Universitário de Lisboa, (3) Instituto Superior Manuel Teixeira Gomes

Numa sociedade informacional, a incapacidade de nos adaptarmos à rápida mudança tecnológica (e.g., passar de um computador fixo para um tablet), pode ser uma fonte de stresse, levando a um estado psicológico negativo associado ao uso de tecnologia, no futuro, refletindo-se através da percepção de ineficácia e do incremento de fadiga associado ao seu uso (Salanova et al., 2013). No presente estudo, com 63 voluntários, registou-se a resposta eletrodérmica, enquanto indicador fisiológico associado ao stresse, durante a apresentação de imagens tecnostressoras da LTID e avaliou-se a especificidade da resposta do grupo com elevado tecnostresse a estas imagens. Embora não se tenha verificado um efeito moderador do nível de tecnostresse, as imagens LTID foram mais emocionalmente competentes que as imagens neutras.

39. Negative vs. positive words: Does emotional valence modulates word recognition?

Catarina Paulino, Alexandra Reis e Luís Faisca
Universidade do Algarve

Effects of emotional valence have been observed in lexical decision tasks, suggesting that valence information is accessed early during word recognition. However, the valence processing time course isn't consensual. To clarify this, 60 participants performed an emotional

lexical decision task where word frequency and arousal were manipulated. High frequency words showed faster recognition times than low frequency ones but they didn't present differences among valence conditions. For low frequency words, recognition times were slower for negative than for positive and neutral. These results suggest that for high frequency, lexical access seems to be instantaneous while low frequency have a later lexical access giving time for information about emotional valence interfering with the processing, facilitating positive words and delaying the negative.

40. Gender processing of European Portuguese nominal phrases: Examining an early-determiner selection in a Romance language

Ana Rita Sá-Leite (1), Ângela Tomaz (1), Isabel Fraga (2) e Montserrat Comesaña (1)
(1) Universidade do Minho, (2) Universidade de Santiago de Compostela (Spain)

Studies on gender processing with Germanic languages using a Picture-Word Interference Paradigm (participants are asked to name pictures using a Definite determiner [DD] + a noun while ignoring superimposed word distractors), found faster responses for pictures that were gender-congruent with distractors than for incongruent ones (the early-determiner selection hypothesis; Schiller & Caramazza, 2003). For Romance languages, however, no gender-effects have been found. As Romance languages have multiple DDs per gender, DD late-determiner selection has been pointed out as the cause for the null effects. The aim of the present picture-word interference study was to examine the early/late-determiner selection hypothesis using a Romance language (European Portuguese) which has one DD per gender as occurs in Germanic languages.

41. Normas de força associativa e tamanho do conjunto para problemas condicionais

Goiara Mendonça de Castilho, Matheus Montalvão Ferraz da Silva, Débora Gramkow, Marcos Felipe Rodrigues de Lima, Guilherme Santos Novaes e Lucas André Scafutto Marengo
Universidade de Brasília (Brazil)

O objetivo deste estudo foi coletar medidas de força associativa (FA) e do tamanho do conjunto (TC) dada a fórmula "Se P, então Q". Método: Duas etapas foram conduzidas. Na primeira, estudantes universitários (N= 282) produziram consequências para 75 problemas introduzidos pela partícula "Se", integralizando 7.050 respostas. Na segunda, os participantes (N= 615) geraram antecedentes para 164 consequências extraídas da primeira coleta, totalizando 17.002 respostas distribuídas em seis diferentes listas. O TC variou entre 2 a 20 respostas por problema e a FA foi calculada pela frequência de respostas válidas. Tal normatização é relevante pois permitirá estimar com maior acurácia o padrão de conclusões em problemas condicionais dada a ativação das relações semânticas indexadas pela FA e TC.

42. Can second language (L2) affect reading comprehension in the first-language (L1)? An eye-tracking study with Portuguese-English bilinguals

Ana Paula Soares (1), Helena Oliveira (1), Carlos Acuña-Fariña (2) e Isabel Fraga (2)
(1) Universidade do Minho, (2) Universidade de Santiago de Compostela (Spain)

In a recent eye-tracking study with Portuguese(L1)-English(L2) bilinguals, Soares et al. (2016) showed that lexical and syntactic levels of representation interacted during the processing of temporally ambiguous L2 relative clauses (RCs) in which cognates and noncognates were embedded in complex-noun-phrases that preceded the RC and that could be disambiguated with either a high- or low-attachment strategy (e.g., "Britney recognized the guard of the prisoner who had been honoured for his braveness" vs. "Britney recognized the guard of the prisoner who had been sentenced to death penalty"). Evidence for cross-language lexico-syntactic activation was observed in early and late reading-time measures. Here we investigate whether the same results may be observed when Portuguese(L1)-English(L2) bilinguals read the same sentences presented in their L1.

43. Is morphological decomposition in low/intermediate L2 learners influenced by prime duration? A masked priming lexical decision study

Amelie Menut (1), Séverine Casalis (1) e Montserrat Comesaña (2)
(1) Université de Lille (France), (2) Universidade do Minho

Data from masked priming lexical decision studies on morphological processing during L2 word recognition with unbalanced bilinguals are inconsistent. Thus, whereas some studies show bilinguals decompose words as monolinguals do others find differences between both samples (see Comesaña et al., in press, PlosOne). L2 proficiency may partially explain the inconsistencies since the resting-level of activation of L2 words is modulated by this variable. Indeed, as resting levels are higher for highly-proficiency L2 learners than for low/intermediate L2 learners, it is likely that the latter need more time to activate morphological information of L2 words. The aim of the present study was to test this hypothesis with low/intermediate French-English L2 speakers by enlarging prime duration (from 50 ms to 100 ms).

44. Pode acamedia ativar ACADEMY tanto como academia? Efeitos de transposição de letras entre línguas

Adriana Rego, Ana Paula Soares e Montserrat Comesaña
Universidade do Minho

Estudos com transposição de letras em palavras de uma dada língua (acamedia-ACADEMIA) mostram que a codificação das letras não é associada a uma posição específica, mas antes a uma região de incerteza. Contudo, evidência sobre a existência de efeitos de transposição no reconhecimento visual de palavras numa segunda língua (acamedy-ACADEMY) ou entre línguas (acamedia- ACADEMY) é escassa. Neste trabalho procuramos responder diretamente a esta questão. Bilingues do Português-Inglês realizaram uma tarefa de decisão lexical combinada com o paradigma de priming emascarado, onde palavras cognatas e não-cognatas inglesas foram precedidas: da sua tradução (academia-ACADEMY), da transposição da sua tradução (acamedia-ACADEMY), ou de um controlo ortográfico (acavelia-ACADEMY). A mesma experiência foi também conduzida em Português e em Inglês como controlo.

45. The strange case of the CV syllable structure effect in visual-word recognition of dissyllabic words

Ana Duarte Campos, Helena Mendes Oliveira e Ana Paula Soares
Universidade do Minho

Although several studies have provided evidence towards the importance of syllables as functional units in visual-word recognition, none fully explained why syllable effects are restricted to words with a consonant-vowel (CV) first-syllable structure in most languages. In this study we aimed to directly address this issue by analysing whether the CV syllable advantage might rely on the complexity of the CVC first-syllable structure. Because CVC syllables are more complex, it is possible that reliable CVC syllable effects might only appear if more time

is given to the processing. To test this hypothesis, two masked priming lexical-decision experiments were conducted with Portuguese skilled readers, manipulating prime duration (66 vs. 88 ms). Results were discussed attending to models of visual-word recognition.

46. Does a picture worth a thousand words? Priming effects on brand logo recognition and naming

Eduardo Rodrigues, Montserrat Comesaña e Ana Paula Soares
Universidade do Minho

Knowing whether pictures are or not more efficacious than words in conveying meaning, is a fundamental question in Cognitive Psychology, with a huge impact on advertisement and marketing. However, to date few experimental studies have explored this issue with brand-logos. Here we examined the extent to which brand-logo recognition (Experiment 1) and brand-logo naming (Experiment 2) was affected by the brief (17 ms) presentation of a prime that could be the same as the target (identity condition), only the brand-name (word condition) or only the brand-logo (picture condition). Brand-logo familiarity was also manipulated. Results showed that at early stages of processing, pictures and words produced similar effects, although modulations were observed as a function of logo familiarity and task requirements.

47. Generalized top-down influences in the segmentation of auditory input

Carolina Dias, Filipa Salomé, José Batista, São Luís Castro e Susana Silva
Universidade do Porto

Top-down influences are known to affect prosodic segmentation, in that prosodic boundary cues may be sometimes overridden by lexico-syntactic structures. In the present study, we wanted to know if top-down influences also affect music segmentation, in the form of music-specific expectations. We compared the segmentation of the same utterances in lexicalized (natural speech) vs. delexicalized versions (prosody only), using two variants of delexicalized versions: one was identified by the experimenter as speech, another as music. Segmentation choices differed according to the presence of lexical content, and these effects differed across the two variants (speech or music). Our findings indicate that top-down influences exist for both speech prosody and music segmentation, in the latter case as music-specific expectations.

48. Assessing reading and reading related skills in adults with dyslexia: The ADLER adult assessment battery

Luís Faísca, Inês Morais, Filomena Inácio, Ana Mesquita, São Luís Castro e Alexandra Reis
Universidade do Algarve

ADLER is an assessment battery for adults consisting of tests of reading, spelling, writing and phonological skills. A preliminary study was conducted on a sample of 87 Portuguese normative readers with different reading skills and habits as assessed by Adult Reading History Questionnaire (ARHQ). Results showed that reading-related skills predicted reading comprehension better than reading fluency. In addition, rapid automatized naming and vocabulary seem to be the cognitive skills that most explain reading variance. These results suggest that the improvement of decoding automaticity might shift the cognitive load of reading to a more semantic based processing. Moreover, testing ADLER on a dyslexic sample is imperative to provide comparative results as well as normative baselines for future application of this test-battery.

49. Is the second best good enough? An EEG study on the effects of word expectancy in sentence comprehension

Sofia Frade, Ana P. Pinheiro e Ana Raposo
Universidade de Lisboa

Studies have consistently reported reduced N400 amplitude for expected vs. unexpected words. This effect was proposed to arise from the pre-activation of upcoming words (Kutas & Federmeier, 2000). Yet, it is unclear whether all expected candidates are pre-activated and whether this effect occurs in an all-or-none or graded fashion. In this EEG study, participants read sentences that ended with the most expected, a less expected ("second best") or an unexpected, but plausible word. The results showed that N400 amplitude was modulated by word expectancy in a graded manner. These findings challenge an all-or-none pre-activation of expected word candidates.

50. Literacy is a highway to lexicon: Rapid automatized naming (RAN) by illiterate and literate adults

Susana Araújo (1), Tânia Fernandes (1) e Falk Huetting (2)
(1) Universidade de Lisboa, (2) Max Planck Institute for Psycholinguistics (The Netherlands)

This study investigated whether literacy acquisition (i.e. learning to read) bolsters rapid, automatic naming of visual items (RAN), a reading-related ability at the interface of visual recognition and speech production. We tested three groups of adults who differed only in literacy/schooling (illiterate, ex-illiterate, and schooled literate) on a serial object RAN task in which word-frequency and phonological neighborhood density were orthogonally manipulated. We observed that literacy experience per se enhances automaticity with which familiar stimuli (e.g., objects) can be retrieved and named: relative to literate, illiterate individuals performed more poorly on RAN, and especially on those items that were of low-frequency and from sparse neighborhoods. We argue that learning to read facilitates the access and retrieval of phonological representations.

51. Does prompt format influence children's stories? A comparison between written and picture prompts

Carolina Codeiro, Teresa Limpo, Thierry Olive e São Luís Castro
Universidade do Porto

This study examined the effect of prompt format on second graders's stories (N = 122; Mage = 7.26 years, SD = 0.31). Two topic-controlled stories were written in response to prompts presented in a sentence (written format) and in a set of images (picture format). Texts were then assessed on quality, number of words, and story elements. Results showed that, although there were no effects of prompt format on quality, picture prompts elicited longer texts with more story elements in terms of the context- and action-related information provided. This latter effect remained, even after controlling for number of words. Overall, picture prompts seem to favour story completeness probably by helping students to generate ideas according to the story grammar.

52. Memory in a second language: A study with Portuguese and Spanish native speakers

Maria Soledad Beato (1) e Pedro B. Albuquerque (2)
(1) Universidad de Salamanca (Spain), (2) Universidade do Minho

We report two experiments examining the role of language proficiency on a recognition memory task. In Experiment 1, participants were native Portuguese speakers while in Experiment 2 participants were native Spanish speakers, and they studied words both in their native

language (Exp.1: Portuguese; Exp.2: Spanish) and in a second language (English). Experiment 1 showed that Portuguese speakers recognized the English words better than the Portuguese words. The same pattern of results was obtained in Experiment 2 with Spanish speakers recognizing more words studied in English. Therefore, in both experiments the words studied in a second language were better remembered than the words studied in the participants' native language. Results are discussed in terms of the Revised Hierarchical Model.

53. Reconsolidação de memórias episódicas: Estudo com palavras não relacionadas

Miguel Silva, Pedro B. Albuquerque e Ana M. Capelo
Universidade do Minho

A teoria da reconsolidação (TR) propõe que mediante a sua reativação uma memória previamente consolidada entra num estado lábil, podendo ser modificada através de uma apresentação de nova informação. Embora os estudos da TR forneçam resultados muito atraentes, enfrenta importantes desafios metodológicos. Nesta investigação, testamos o efeito de reconsolidação recorrendo ao paradigma de aprendizagem de objetos proposto por Almut Hupbach. Os nossos objetivos foram testar o impacto da natureza do estímulo (lista de palavras) e explorar o papel da relação entre estímulos na reconsolidação. Os resultados revelam que a memória para listas de palavras não relacionadas também está sujeita a mudanças ou modificações após a sua reativação e incentivam a novas pesquisas sobre esse tópico.

54. The summative processing in the production effect

Pedro B. Albuquerque, Cristiana Santos e Karlos Luna
Universidade do Minho

The production effect reflects the memory benefit of reading information aloud as opposed to silently. It seems that words read aloud are processed with more distinctive features (pitch, prosody, etc.) than words read silently. Our first study replicated the production effect with action verbs (e.g., to sign). The second study aimed to investigate the effect of summative processing on recall. The same words were read silently, aloud, imagined, and actuated. Results showed a clear effect of enactment with words actuated being more correctly recalled than the imagined ones. Recall rate to words read silently and aloud did not differ. Results are discussed considering the relativity of distinctiveness.

55. When we must forget: The effect of cognitive load on prospective memory commission errors

Patrícia de Matos, Flávia H. Santos e Pedro B. Albuquerque
Universidade do Minho

Research has shown that a target event can spontaneously retrieve prospective memory (PM) intentions causing commission errors (i.e., performing intended actions when no longer relevant). We investigated potential mechanisms that might influence unfulfilled intentions deactivation by manipulating cognitive load during the finished-PM phase (i.e., when the intention should not be executed). In a between-subjects design, 60 participants performed a lexical decision task with an embedded PM demand (control condition), or simultaneously performed a counting recall task (cognitive load condition). Commission errors rate was lower during the control condition (40%), when compared with the cognitive load condition (70%). Results showed that unfulfilled, no longer relevant intentions are not fully deactivated and commission errors occur rather automatically, especially in demanding cognitive situations.

56. Destination memory in young adults: Can it be improved by facial distinctive features?

Catarina Barros (1), Pedro B. Albuquerque (1) e Mohamad El-Haj (2)
(1) Universidade do Minho, (2) Université de Lille (France)

Destination memory is defined as the ability to remember the person we told something. The low accuracy of this memory is attributed to the few attentional resources allocated to the recipient of the information. Thus, based on distinctiveness, the aim of this study was to determine the effect of facial uniqueness (e.g., tattoos) on destination memory. The procedure involved the participants to tell proverbs to faces (with a distinctive feature or not) and later recognize them. Results showed a smaller destination memory effect compared to previous studies, and an improvement when the faces presented a distinctive feature. It seems that distinctive features increase the attentional focus on the other person, strengthening the association between proverb-face and thus, improving destination memory.

57. Aprendizagem de nova informação em recordação colaborativa

Ana Lapa, Leonel Garcia-Marques e Paula Carneiro
Universidade de Lisboa

Quando nos recordamos de um evento em conjunto com outras pessoas, podemos ser expostos a nova informação partilhada. Neste estudo, procurámos perceber se a relevância atribuída à nova informação impacta a aprendizagem. Numa primeira sessão, cada participante estudou um conjunto único de palavras do qual se recordou individualmente ou em grupo. Manipulámos a relevância atribuída à informação partilhada pelo grupo através de instruções acerca da sobreposição entre o material apresentado a cada um. Na segunda sessão, 48h depois, pedimos aos participantes que se recordassem das palavras estudadas e das palavras partilhadas pelos outros membros. Os resultados sugerem que atribuir uma maior relevância à informação partilhada pelo grupo parece prejudicar a aprendizagem, porventura por fomentar a interrupção das estratégias de recuperação.

58. Musical mood induction: Measuring visuospatial working memory capacity and physiological responses

Fabiana Silva Ribeiro, Flávia H. Santos e Pedro B. Albuquerque
Universidade do Minho

Evidence indicate that emotional states may affect differently visuospatial working memory (WM) performance depending on arousal and valence of the stimuli. However, how musical mood induction procedure (MMIP) influence visuospatial WM tasks still unclear. This experiment aimed to investigate self-report and physiological aspects of the relationship between WM capacity and emotions in young adults. The positive and negative MMIP generated respectively; happy and sad mood states in the participants. Interestingly, negative MMIP was followed by low visuospatial WM performance and increased heart rate during the accomplishment of the WM task. Overall, these findings showed that negative mood induced by music could disrupt attentional processes decreasing visuospatial WM.

59. Cognitive control relation with proactive interference varies with age

Harry T. A. Moore, Adriana Sampaio e Diego Pinal
Universidade do Minho

Proactive interference (PI) in working memory (WM) is the detrimental effect of no longer relevant material on memory retrieval. Research suggests PI effects in WM are exaggerated with age, and this may be due to decreased cognitive control. To better understand PI and age-related cognitive decline, 15 young and 15 old adults completed a PI task and neuropsychological tests measuring cognitive control. In general, young adults were more accurate than old adults, with both groups showing PI effects on accuracy. However, younger adults showed PI effects on RT, while older adults did not. Further, age-dependent differences were found in the correlation between PI effects on both accuracy and RT and neuropsychological tests.

60. Criação de falsas memórias em contexto forense: O papel do stresse e da ansiedade

Cátia Fidalgo (1), Laura Alho (1) e Pedro Rodrigues (2)
(1) Universidade Lusófona de Humanidades e Tecnologias, (2) Universidade de Aveiro

A temática “falsas memórias” é amplamente estudada em contexto forense, verificando-se consistentemente que não existem testemunhos sem erros. Perceber que fatores influenciam a sua criação torna-se crucial, visto que este conhecimento pode permitir a deteção de testemunhos pouco fiáveis. Neste estudo, avaliou-se a relação que o stresse e a ansiedade têm na construção de falsas memórias. Apresentaram-se vídeos de crime e neutros a estudantes universitários; estes responderam a algumas escalas em três momentos distintos. Realizaram ainda uma tarefa de evocação livre e responderam a questões sobre o vídeo. Os resultados revelaram que o stresse e a ansiedade não influenciaram a construção de falsas memórias. Foram ainda exploradas as percentagens de falsas memórias por tipo de filme e género.

61. Poderá a criatividade influenciar a criação de falsas memórias?

Catarina Guedes (1), Pedro Rodrigues (2) e Laura Alho (1)
(1) Universidade Lusófona de Humanidades e Tecnologias, (2) Universidade de Aveiro

A temática ‘falsas memórias’ é uma das mais relevantes em contexto forense, sendo que diversas variáveis podem contribuir para a sua construção. A criatividade, escassamente estudada neste contexto, pode tornar os sujeitos mais susceptíveis a recriar um evento, acrescentando ou eliminando informação. Também os níveis de stresse e ansiedade, o género e o tipo de evento podem apresentar influências na recordação desse evento. Oitenta estudantes universitários visualizaram um filme (crime ou neutro), preencheram questionários e realizaram uma tarefa de evocação livre. Os resultados mostram que a criatividade, o stresse e a ansiedade não influenciaram a qualidade nem a quantidade de informação recordada. Os sujeitos deram mais erros na condição crime, tendo os homens cometido mais erros do que as mulheres.

62. Identify-to-reject: A powerful strategy to reduce false memory

Maria Soledad Beato (1), Sara Cadavid (2) e Mar Suarez (1)
(1) Universidad de Salamanca (Spain), Universidad del Rosario (Colombia)

We examined the role of theme identifiability (ID) on false recognition (FR) using the Deese/Roediger-McDermott (DRM) paradigm. Materials consisted on lists of words associated to a non-presented critical item (i.e., theme). This critical item is often falsely remembered/recognized in subsequent memory tests. Participants studied 8 high-ID and 8 low-ID lists of words whose forward and backward associative strengths were kept under control. Results showed that, 1) false memory effect was found, and 2) false memory rates were higher in low-ID lists than in high-ID lists. Results indicated that, when participants identify the theme (i.e., the critical lure), they seem to engage an “identify-to-reject” strategy to reduce false memories. Results are discussed in terms of the main theories in the field.

63. Effect of font size and size of the referent in memory and metamemory

Karlos Luna, Rogério Dalot e Pedro B. Albuquerque
Universidade do Minho

People believe that they will remember better words in large font than in small font, although the effect of font size on memory is, at best, minimal. However, no research has studied the effect of the size of the referent of a word, either large (elephant) or small (ant). We presented words with large and small referent in large and small font size, and participants provided judgments of learnings (JOLs) for each word. After the study phase, they completed a free recall test. Results showed larger JOLs for words presented in large font and with small referent, and better memory for words with small referent. The results are discussed in terms of metamemory beliefs and access to memory representations.

64. Effects of (in)congruent prompts about word frequency on judgements of learning and recall

Pedro Simão Mendes, Karlos Luna e Pedro B. Albuquerque
Universidade do Minho

Judgments of learning (JOLs) are usually higher for high frequency words (HFW) than for low frequency words (LFW). In the present study, we explored the effects of congruent (vs. incongruent) prompts about word frequency on JOLs and recall. Participants made higher pre-study JOLs when informed that they would see a HFW rather than LFW, but immediate JOLs were higher for HFW than for LFW, regardless of previous prompt. Correct recall was higher for HFW than for LFW, and higher for congruent than incongruent prompts. Results suggest that participants may use information available at the moment of making JOLs (pre-study: prompt; immediate: actual frequency). The observed incongruence effect on recall may reflect encoding impairment caused by previous incongruent prompts.

65. Importance mediates the effect of font size on judgments of learning

Marlene Nogueira, Karlos Luna e Pedro B. Albuquerque
Universidade do Minho

People believe that words presented in larger fonts will be better remembered, although why people hold this belief is still unknown. More important information is better remembered, and thus we tested the hypothesis that participants associate larger fonts with more important information. We presented words in small and large font and participant provided judgments of learning (JOLs) and rated the perceived importance of each word. Results showed a strong association between JOLs and judgments of importance and that participants rated with higher JOLs and as more important words in large than in small font. This result suggests that a considerable portion of the effect of font size on JOLs is due to inferences about importance.

66. Disentangling the effects of emotional encoding conditions on internal source monitoring: A behavioral study

Diana R. Pereira (1), Adriana Sampaio (1) e Ana P. Pinheiro (1, 2)

(1) Universidade do Minho, (2) Universidade de Lisboa

The influence of emotion on source memory monitoring remains unclear. In two studies, we examined the role of emotionally valenced encoding contexts in internal source memory, using a mixed (Experiment 1) and a blocked design (Experiment 2). Two distinct samples of 30/28 participants evaluated a set of neutral words in a self-referential or non self-referential manner (common judgments). Concomitantly with each word, a negative/neutral/positive picture was presented in the background. The beneficial effect of self-referential encoding was observed for both item and source memory performance in both experiments. Negative encoding trials led to worse source memory recognition in comparison with neutral trials only when the mixed design was implemented. In emotionally changing environments, negative contexts might affect internal source memory.

67. Memory and aging: A behavioral and neurocognitive study of tDCS and cognitive training

L. Amaral, A. R. Martins, J. Alves, F. Fernandes, F. Fregni, M. Simis, A. R. Silva, M. R. Simões e J. Almeida

Universidade de Coimbra

Cognitive training (CT) has been widely implemented as a method to alleviate cognitive decline. Recently, a beneficial effect has been shown after the combination with transcranial direct current stimulation (tDCS). Here we tested whether CT and excitatory tDCS over the left dorsolateral prefrontal cortex or right cerebellar cortex (rCC) facilitates verbal episodic memory, compared with sham stimulation and a control group. Performance on memory was evaluated at baseline, post-intervention and follow-up (4 months after), using behavioral and neuroimaging tools. Results show a greater improvement in the group receiving CT+ tDCS in the rCC. Neuroimaging data supports the results from the neuropsychological assessment. These data suggest CT and neuromodulation hold promise as a means to enhance cognitive functions in healthy elderly.

68. The effect of chronotype and time-of-day on relational memory for unfamiliar faces

Rute Sequeira (1), Pedro Bem-Haja (1, 2), Alan Selman (1, 3), Ana Bárto (1, 2), Marta Lopes (1), Carlos F. Silva (1, 2) e Isabel M. Santos (1, 2)

(1) Universidade de Aveiro; (2) CINTESIS; (3) University of Plymouth (UK)

Although many investigations have focused on the relationship between circadian typology and cognitive performance, little is known about its influence on specific cognitive tasks such as facial recognition. In this study, eye movement measures were used to explore the effect of chronotype and time-of-day on participants' performance in a relational memory task with unfamiliar faces. Participants studied faces superimposed on background landscapes and were tested with three-face displays superimposed on the earlier viewed landscapes. Results showed distinct viewing patterns associated with the different types of display (match, re-pair and novel) when participants were on their optimal vs. non-optimal time of day, and also between morning- and evening-type individuals. This suggests that chronotype and time-of-day may modulate the underlying memory processes.

69. Fluctuation of HRV spectra during an encoding task: The synchrony effect

Pedro Bem-Haja (1, 2), Alan Selman (1, 3), Rute Sequeira (1), Ana Bárto (1, 2), Marta Lopes (1), Carlos F. Silva (1, 2) e Isabel M. Santos (1, 2)

(1) Universidade de Aveiro; (2) CINTESIS; (3) University of Plymouth (UK)

Biological functions, such as deep body temperature, vary rhythmically throughout the day and in synchrony with the individual's chronotype. The same happens with cognitive functions such as attention, or memory. While participants performed the encoding phase of a memory task, the ECG was recorded with the objective of examining the effect of the interaction between time-of-day and chronotype on heart rate variability (HRV). The various components of the HRV spectra increased during the participants' non-optimal hours. This result may be explained by the fact that the HRV spectra tends to increase as a result of fatigue. Considering that HRV is widely used in psychobiological studies, these studies should begin to take into account the potential impact of the synchrony effect.

70. Transcranial direct current stimulation effects on object-selective neural responses in the inferior parietal lobe

J. Almeida, A. R. Martins, F. Bergström, L. Amaral, A. Freixo, A. Ganho Ávila, S. Kristensen, D. Lee, J. Nogueira e M. Rüttorf

Universidade de Coimbra

Neuromodulation techniques such as transcranial direct current stimulation (tDCS) are routinely used for treating neurological and neuropsychiatric disorders, and for enhancement of cognitive abilities. Recently, their effectiveness in modulating behavioral and neural responses has been questioned. Here we use excitatory and inhibitory tDCS prior to a functional magnetic resonance imaging (fMRI) experiment. Our results show that response preferences in the target area are dependent on the polarity of the tDCS session preceding the fMRI experiment – these preferences are less distinct in the cathodal than in the anodal session. As such, we show unequivocally that tDCS modulates neural responses. This result is of the utmost importance in demonstrating the effectiveness of tDCS for clinical and experimental purposes.

71. Effects of tDCS coupled with cognitive training on explicit and implicit preference for chocolate

Sandra Carvalho (1, 2), Augusto J. Mendes (1), Alberto Lema (1), Oscar F. Gonçalves (1, 2) e Jorge Leite (1, 2, 3)

(1) Universidade do Minho, (2) Harvard Medical School (USA) (3) Universidade Portucalense

The efficacy of tDCS over dlPFC and cognitive training on chocolate craving decrease has been demonstrated by several studies. However, it remains unclear whether those effects may affect explicit and implicit measures of chocolate craving. Thus, this study assesses how these interventions on explicit (Visual Analogue Scale) and implicit (Implicit Association Task) preferences for chocolate. Fifty-one healthy volunteers were randomly distributed to one of three conditions of cross-hemispheric tDCS (1. Sham, 2. RA-LC, 3. LA-RC) over dlPFC, coupled with avoidance training. Results show that cognitive training per se was effective decreasing chocolate craving, irrespectively of the stimulation condition. Moreover, RA-LC during training decreased craving for chocolate and counteracted the increased craving induced by LA-RC, as assessed by the explicit measure.

72. How do we respond to a transgression? Justice judgements and intergroup relations

Daniela Costa, José Keating e Joana Arantes

Universidade do Minho

Social norms violations trigger two classes of reactions: punishment of violators, and restoration of victims. We evaluated the reactions of witnesses to unfair divisions in a Dictator's Game, manipulating the intensity of the unfairness and players' social identity. 156 college

students participated in a modified version of the Third-Party Punishment Game. They had to decide whether and how many of their own points to use in order to compensate the Receptor or to punish the Dictator. As expected, participants were sensitive to the inequity of divisions and sought to restore fairness, using a mix of compensation and punishment. Contrary to expectations, they were not sensitive to social identity. Interactions between social identity effects and judgments of justice are discussed.

73. Preferência e validade percebida de intuição e análise

Filipe Loureiro, Teresa Garcia-Marques e Duane T. Wegener
ISPA-Instituto Universitário

Diferenças individuais influenciam como tomamos decisões diárias com base em uma análise cuidada da informação ou com base nas nossas intuições. Estudos recentes sugerem que a preferência por intuição ou análise pode igualmente variar em função das características do contexto. Integrámos esta abordagem, estudando a validade percebida destes processos e de que forma esta explica a preferência por intuição e análise em decisões de diferentes graus de complexidade. Os resultados demonstram uma preferência por intuição em contextos simples e por análise em contextos complexos, sendo esta preferência explicada pela validade percebida destes processos. Diferenças individuais nas tendências de processamento intuitivo e analítico moderaram a validade percebida destes processos. Adicionalmente, diferentes factores de intuição foram percebidos diferentemente quanto à sua validade.

74. Electrodermal activity and behavioral response to a set of moral dilemmas with different emotion arousal and valence

Ana Teresa Martins, Filomena Inácio, Alexandra Reis e Luís Faísca
Universidade do Algarve

Moral dilemmas decisions are influenced by several factors related to the dilemma's situation. Thus, moral dilemmas should be carefully designed in order to control for such factors. Our main objective was to adapt and validate a set of 46 moral dilemmas (Christensen et al., 2014), designed to control four conceptual factors: Personal Force, Benefit Recipient, Evitability and Intention. Forty-one participants made their decision for each moral dilemma while behavioral response and electrodermal activity were recorded. Our main results confirmed that all four conceptual factors exerted the expected effects on participants' moral decisions and that these effects were detected both in behavioral and physiological responses.

75. Financial decisions under time pressure: The role of financial literacy and numeracy

Vânia Costa (1), Nuno de Sá Teixeira (2), Eduardo Santos (1) e Ana Cordeiro Santos (1)
(1) Universidade de Coimbra, (2) Universidade de Roma (Italy)

Financial literacy and numeracy are prominent topics on the public agenda worldwide. Both are considered fundamental skills to engage in sound and rational decisions. On the other hand, dual-process theory attributes (i) normative economic behaviour to a deliberate and analytical system (system 2); (ii) and decisions errors to an automatic and emotional system (system 1). In a repeated measures study, we examine the protective role of financial literacy on overall decision quality (utility maximization, framing effects and risk-taking behaviour) in conditions where system 2 is weakened (time pressure) and unimpaired (no time pressure). Results showed that financially literate and highly numerate participants perform significantly better in the no time pressure condition and significantly worse under the time pressure condition.