#### **UNIVERSITY OF HERTFORDSHIRE**

## Department of Psychology, Sport and Geography

### Research Seminars 2022-2023

**SEMESTER A** 

Day & Time: Thursdays (late afternoons and lunchtimes)

Location: in 1H279 in CP Snow (Student Zone) except on 8 December (on Zoom only)

In person seminars will be also transmitted online via ZOOM

**ZOOM LINK:** 

Date	Speaker / Topic	Time
<b>20.10.22</b> Thursday	Sam Gilbert, University College London  Outsourcing memory to external tools: Effort, metacognition, ageing, and cognitive offloading	16:00- 17:30
<b>10.11.22</b> Thursday	Samuel Mayler, University of Hertfordshire  Exercise prescription: Should we be prescribing exercise intensity differently?	16:00- 17:30
	Julio Llamas Alonso, University of Hertfordshire The role of spontaneous cognition, psychopathology and gaming habits in the frequency and nature of Game Transfer Phenomena	
<b>17.11.22</b> Thursday	Lauren Stewart, Goldsmiths, University of London Social singing, culture and health: Interdisciplinary insights from the CHIME Project for perinatal mental health	13:00 - 14:30
<b>1.12.22</b> Thursday	Wendy Ross, London Metropolitan University The model of serendipitous cognition	16:00- 17:30
<b>08.12.21</b> Thursday	Daniel Bub, University of Victoria, Canada In search of limb-specific codes	16:00- 17:30

#### **SEMESTER B**

Date	Speaker / Topic	Time
14.03.23	Danny Buckley, University of Hertfordshire  Golden memories – A sociological investigation of the experiences of sporting	

Tuesday	reminiscence for people living with Dementia	16:00-
	Jackie Le-Fevre, University of Hertfordshire The value of personal values connection	17:30
23.03.23	Dawn Rose, Lucerne University of Applied Sciences and Art Songlines for Parkinson's: A new approach to co-developing a group-based music and movement intervention for and with people with Parkinson's, practitioners, medical professionals, and scientists	16:00- 17:30
30.03.23	Miles Tufft, University College London  Social offloading: How social contexts support the selective suppression of distracting information	16:00- 17:30
20.04.23	Louis Renault, University of East Anglia A component process view of declarative memory	16:00- 17:30
27.04.23	Matthew Jewiss, Anglia Ruskin University - POSTPONED  Predicting performance under pressure: What do we know, how much can we explain and where do we go next?	16:00- 17:30
04.05.23	Rik Henson, MRC Cognition & Brain Sciences Unit, Cambridge University  Age, brain and cognition: Results from the CamCAN Study	16:00- 17:30
11.05.23	Lorna O'Doherty, Coventry University Trauma burden among survivors of sexual violence and abuse accessing SARCs in England, and outcomes one year later: findings from the Multidisciplinary Evaluation of Sexual Assault Referral Centres for better Health (MESARCH) cohort study	16:00- 17:30
08.06.23	Paul Swinton, Robert Gordon University, Aberdeen The use of Bayesian methods to enhance sport and exercise science research	16:00 17:30

Speaker	Abstract
Sam Gilbert, University College London	Outsourcing memory to external tools: Effort, metacognition, ageing, and cognitive offloading
20.10.22	Cognitive neuroscience investigations of memory typically investigate brain-based mechanisms alone, however, in everyday life we often offload memory onto external tools such as reminders and to-do lists. This talk will summarise a line of research investigating how cognitive offloading can be studied in the laboratory and its neurocognitive mechanisms. Evidence shows that cognitive offloading is highly effective, experimentally tractable, and guided by metacognitive processes. Evidence also suggests that individual differences and developmental changes are driven at least in part by metacognitive processes. Therefore, metacognitive interventions could play an important role in promoting adaptive use of cognitive tools.

Samuel Meyler, University of Hertfordshire

#### Exercise prescription: Should we be prescribing exercise intensity differently?

10.11.22

Exercise training is recommended as an effective means of improving cardiorespiratory fitness (CRF), however whilst this is consistent at the group level, this does not hold true at the individual level. For example, following an identical exercise programme some individuals will benefit from large gains in CRF, whilst others do not. A reason for this may be down to how we prescribe exercise. The current methods used to routinely prescribe exercise in sport, exercise, health, and clinical-based research may in fact create a largely heterogenous physiological stimulus among individuals, and it is likely that this contributes to why some individuals experience large gains in training-induced adaptations (e.g., increased CRF), whilst others, unfortunately, do not. Using an alternative way to prescribe exercise intensity may tackle this problem and maximise the amount of individuals experiencing the desired training-induced adaptations that are sought through exercise training.

## The role of spontaneous cognition, psychopathology and gaming habits in the frequency and nature of Game Transfer Phenomena

Julio Llamas Alonso, University of Hertfordshire Game Transfer Phenomena (GTP) refer to a transfer of video game experiences from the virtual to the real world, and can manifest in the form of altered sensory perceptions, automatic mental processes, and behaviours and actions with the video game content. GTP can be triggered by incidental external or internal cues related to video game content, resulting in alterations in one's perception, thoughts, and behaviours. However, possible mechanisms underlaying this phenomenon have not been fully identified. This talk will summarise findings from two studies using validated psychological scales and cognitive tasks to investigate the role of involuntary cognitions (mind-popping, day-dreaming), personality traits (schizotypy, impulsivity) and mood (anxiety, stress, and depression) as possible predictors of self-reported GTP frequency. In addition, how this phenomenon can be measured in daily life using a diary method and a theoretical model explaining possible underlaying mechanisms of GTP will be discussed. Finally, current and future directions for studying GTP will be outlined.

# **Lauren Stuart,** *Goldsmiths, University of London*

## Social singing, culture and health: Interdisciplinary insights from the CHIME Project for perinatal mental health

17.11.22

Arts in Health initiatives and interventions to support health have emerged from and been applied to mainly WEIRD (Western, Educated, Industrialized, Rich and Democratic) contexts. This overlooks the rich cultural traditions that exist across the globe, where community groups often make prolific use of participatory song and dance as a part of ceremonies, ritual and gatherings in everyday life. Here, we argue that these practices can provide a valuable starting point for the co-development of health interventions, illustrated by the CHIME project for perinatal mental health in The Gambia, which worked with local Kanyeleng groups (female fertility societies) to design and evaluate a brief intervention to support maternal mental health through social singing. Here, we use the project as a lens through which to highlight the value of co-creation, cultural embeddedness and partnership building in global health research.

#### Wendy Ross, London Metropolitan University

#### The model of serendipitous cognition

01.12.22

Serendipity is a combination of accident and sagacity - that is a random event which is exploited by someone with the right skill set. To date, serendipity has been researched mainly through the use of qualitative data which taps into someone's *sense* of serendipity rather than its objective occurrence. When more objective techniques have been employed what is remarkable is how often serendipity fails to occur, that is that accidents in the environment fail to be noticed or exploited. In this talk, I will introduce my model of serendipitous cognition which aims to disentangle both the precipitating mental states and the follow up actions which are required to make the most of environmental accident.

**Daniel Bub** *University of Victory* 

08.12.22

#### In search of limb-specific codes

Attempts to determine the nature of the codes generated by the picture of a graspable object have raised a number of important but unresolved issues of central relevance to our understanding of the relationship between perception and action. According to one prominent view, the image of an object like a frying pan automatically generates a mental representation of the components of a grasp action. Just as a solid object naturally enlists the left or right hand when we intend to grasp the object by the handle, so does a pictured version of the object automatically yield an effect of the handle on the selection of a left/right-handed response. A left handed grasp action would be triggered by the handle depicted on the left regardless of an observer's intentions, whereas a right handed grasp action is triggered by the handle on the right. Surprisingly, there is very little evidence in support of this claim, despite its theoretical import. I will describe recent efforts we have made in search of limb-specific codes induced by: (a) images of graspable objects with the handle positioned on the left or right and (b) images of pictured grasp postures involving the right/left hand. Unambiguous evidence will be presented establishing the task conditions that do indeed evoke limb-specific representations.

#### **Danny Buckley** *University of Hertfordshire*

## Golden memories – A sociological investigation of the experiences of sporting reminiscence for people living with Dementia

This research explores the experiences of people affected by dementia during a reminiscence therapy programme hosted by Watford Football Club. Reminiscence therapy promotes the maintenance of memories associated with a meaningful aspect of an individual's life and is often used to treat memory loss or dementia. Reminiscence therapy is most prominent when the topic is of great interest to the participants and for many individuals, attendance and participation in sport is a significant aspect of their life's narrative. This doctorate explored the lived experiences of people living with dementia (PLWD), their carers and the volunteers and facilitators during the Golden Memories reminiscence therapy programme. Observational diary extracts, focus groups, virtual interviews and face-to-face semi-structured interviews were conducted to evaluate the impact of the programme on the lives of those affected by dementia. Data were collected before and after the pandemic had an impact on the United Kingdom (UK). Findings have indicated that the programme created an opportunity for learning and socialisation amongst those living with dementia and a rare respite opportunity for those attending with them. It is intended that this doctorate will contribute new knowledge to the field of reminiscence therapy by providing the insights of PLWD in attendance on a bespoke programme. Whilst also providing an insight into the experiences of the involved volunteers, carers and relatives.

#### and

#### The value of personal values connection

Jackie Le-Fevre, University of Hertfordshire

14.03.23

There is a body of literature that highlights benefits experienced by organisations when the personal values of employees consciously align with the core values of their employer. Less clarity exists concerning what is meant by conscious connection to personal values and any benefits that may flow for the individual from that connection. Drawing on themes from an exploratory qualitative study, a model of conscious connection to values is proposed and a set of personal benefits suggested. These items were tested with convenience samples of adults in online quantitative surveys in late 2020, 2021 and 2022 (n=1225) and contrasted with a cohort of adults not known to the researcher accessed through Prolific in December 2022 (n=273).

In this talk, the results of the study will be presented and implications for the workplace practice of managers and coaches discussed.

#### Dawn Rose, Lucerne

Songlines for Parkinson's: A new approach to co-developing a group-based music and movement intervention for and with people with Parkinson's, practitioners,

University of Applied Sciences and Art

23.03.23

#### medical professionals, and scientists

Parkinson's research suggests that interventions combining music/sound and movement could improve motor and non-motor symptoms for people with Parkinson's (PwP; Karageorghis et al., 2020). As PwP tend to be up to 70% less active than their peers, it is important to develop interventions that appeal to PwP on a multi-modal level. Using an inclusive Patient and Public Involvement (PPI; Rose et al., 2022) and transdisciplinary approach we co-developed a new group-based intervention called *Songlines for Parkinson's* that integrates musical activities with exercises to improve quality of life for PwP. Additionally, we conducted an online survey with PwP on their use of music and music and motor imagery in everyday life to (Rose et al., & Poliakoff et al. *under review*). Results show how PwP use music for *active purposing* (i.e., to motivate themselves to do things) and that duration of disease is not linked to music and dance sophistication in Parkinson's, nor to auditory imagery ability. Together these findings suggest there is further scope for optimizing music and musical imagery in Parkinson's rehabilitation. The new intervention will be tested at UH in 2023 using a within-subjects repeated measures mixed methods design.

#### Miles Tufft, University College London

## Social offloading: How social contexts support the selective suppression of distracting information

30.03.2023

Cognitive mechanisms do not exist in isolation but in a world rich in context. With evidence from our joint picture word interference (PWI) paradigm, I demonstrate how meaningful social contexts have the power to facilitate the selective suppression of distracting information in ways that are sensitive to the social dynamics of dyadic interactions. In the PWI paradigm, participants respond to target pictures while ignoring distractor words. If pictures and words are semantically related, then interference slows responses. In a series of studies, I have consistently shown that this interference can be removed when participants believe they are working with another person in a division of labour setup. In this context, participants believe their partner "takes care" of the word while they "take care" of the picture. Moreover, this removal only occurs when the partner is perceived to have particular social traits, such as high status or competency. I conclude that social environments afford the selective offloading of information to others in a socially sophisticated manner (social offloading), and I highlight the importance of re-worlding participants in meaningful contexts to reveal the embeddedness of behaviour.

#### **Louis Renault,** University of East Anglia

#### A component process view of declarative memory

20.04.23

One of the most common distinctions in long-term memory is that between semantic (i.e., one's general knowledge of the world) and episodic (i.e., recollection of contextually specific events from one's personal past). However, emerging cognitive neuroscience data suggest a surprisingly large overlap between the neural correlates of semantic and episodic memory. Moreover, personal semantic memories (such as knowledge of personal facts or memory for repeated events) have been studied little and do not easily fit into the standard semantic-episodic dichotomy. In this presentation, I will discuss various approaches that my lab used in recent years to investigate these questions, such as creating new tests and scoring procedures for separating these types of memories, and measuring their respective neural correlates in event-related potential (ERP) and functional magnetic resonance imaging (fMRI) studies. Taken together, these data are inconsistent with a strict separation of declarative memory systems. Rather, they are compatible with a component process model, in which semantic, personal semantic, and episodic memory may rely on different weightings of elementary processes, such as sensory-perceptual imagery, spatial and temporal features, and self-reflection.

#### **Matthew Jewiss,** Anglia Ruskin

Predicting performance under pressure: What do we know, how much can we explain and where do we go next?

University

27.04.23

One of the main aims in Sport Psychology is to identify and understand psychological variables which explain why some individuals thrive and some choke under pressure. In this talk I will critically overview traditional psychological variables which are believed to have an association with performance under pressure. Within this, I shall introduce challenge and threat (C/T) states as a contemporary, potentially superior, psychophysiological correlate to predicting performance under pressure in comparison to traditional "psychological variables". I shall consider the C/T states and performance association with respect to performance outcomes and underlying performance mechanisms and critically explore their explanatory power. Here, C/T states will be applied to performance domains beyond sport (e.g., aviation, fire service and military to reflect ongoing research collaborations). I shall end by introducing physiological indices of emotional regulation which, on a theoretical level, may prove a psychophysiological marker worthy of research attention in the performance under pressure field.

#### **Rick Henson,** University of Cambridge

## Relating age, brain and cognition: results from the Cambridge Centre for Ageing & Neuroscience (CamCAN)

04.05.23

I will describe a range of results from cognitive, brain imaging and lifestyle investigation of approximately 700 healthy people from 18-88 years of age in the CamCAN project (www.camcan.org), including: 1) effects of age on different types of memory, and their grey- and white-matter correlates; 2) state-dependent effects of age on brain connectivity across rest, a simple sensorimotor task and movie-watching; 3) (de)differentiation of cognition, white-matter and of the relationship between cognition and white-matter; 4) lack of evidence for functional compensation in prefrontal cortex in ageing and 5) the importance of mid-life, non-occupational activities for cognitive reserve in old age.

#### **Lorna O'Doherty,** *Coventry University*

Trauma burden among survivors of sexual violence and abuse accessing SARCs in England, and outcomes one year later: findings from the Multidisciplinary Evaluation of Sexual Assault Referral Centres for better Health (MESARCH) cohort study

11.05.23

The MESARCH project was commissioned to evaluate SARCs, which are accessed by 55,000 survivors of sexual offences in England each year. Evidence derived from 6 major sub-studies, and drew on the experiences and data of 6,901 survivors. This presentation explores our cohort study which featured three waves of data collection over one-year (21 SARCs, 2,602 service users screened, 337 people recruited). It used a multilevel-modelling framework to explore risk factors for PTSD burden at baseline and change at one-year. A clear picture emerged of a risk 'triad' with adverse childhood experiences, chronic mental health problems and economic deprivation affecting people's PTSD presentations to a greater degree than aspects of the offence (e.g. relation to perpetrator; time since trauma) though these were still important. Whilst there were clinically important improvements in trauma symptoms, difficulties persisted for half of participants a year later. The work underscores the value of attending to the wider context of survivors' lives and timely access to a range of therapies and advocacy through multi-agency/sector partnerships and a life-course, intersectional approach to supporting healing and recovery after abuse. MESARCH provides a basis for advancing trauma-informed research and enhancing practices across settings where survivors present for care and support.

#### **Paul Swinton,** Robert Gordon University

#### The use of Bayesian methods to enhance sport and exercise science research

08.06.23

Traditionally, analyses in sport and exercise science have been conducted using frequentist methods that calculate probabilities and interpret results over the long run. There are many contexts in sport and exercise science where this perspective is limited and challenging to interpret. In contrast, Bayesian methods use subjective probabilities and can incorporate

prior information in a formal manner to interpret one off events intuitively. This presentation will describe how Bayesian methods can be incorporated within designs commonly used in sport and exercise science to better harness results from previous research and interpret subsequent findings.

After the in-person seminars, staff and students are invited for drinks and nibbles for an informal chat and follow up discussion with the speaker in the Psychology Staff Room in CP Snow (in 2H256).

All enquiries to: Lia Kvavilashvili (<u>l.kvavilashvili@herts.ac.uk</u>), Katherine Brown (<u>k.brown25@herts.ac.uk</u>) and Lindsay Bottoms (<u>l.bottoms@herts.ac.uk</u>)