

2018 HONOURS PROJECT TOPICS

Please note that potential student projects are not limited to the ones listed here.

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More information about my research can be found in my ResearchGate webpage:
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1) The effects of poverty on cognitive and emotional health

One of the greatest global challenges of our times is to break the poverty cycle – the process through which poverty by itself creates conditions that maintain and cause further poverty across generations. How does poverty leads to poverty? Many explanations have been proposed, but one of the main drivers of “poverty traps” is believed to be the effect of socioeconomic status (SES) on cognitive brain function (Raizada et al, 2010; Haushofer & Fehr, 2014; Mani et al., 2013), and in particular on the so-called “executive functions”.

Executive functions (EF) are a set of cognitive capacities widely studied in the last 20 years that are thought to be key determinants of IQ, general adaptation and personal success in the course of a lifetime (Mushtaq, Bland, & Schaefer, 2011; Ruge & Braver, 2006). Executive functions are processes that are implemented when automatic schemata are not sufficient for successful adaptation to the environment. These processes tend to be conscious, attention- demanding, and they involve a flexible coordination of several cognitive processes in order to attain a specific goal (Schaefer et al., 2006; Mushtaq et al., 2011; Atkinson and Shiffrin, 1968; Baddeley, 1986, 2003; Norman and Shallice, 1986; Baddeley and Della Sala, 1996; Miller and Cohen, 2001; Braver et al., 2007). EF relies on a well-known network of brain structures encompassing the dorsolateral prefrontal cortex, the anterior cingulate cortex and the parietal cortex, amongst others (Mushtaq et al., 2011).

Although there is evidence indicating an effect of poverty on EF, the underlying causes of this effect are unknown. Is the poverty-EF link caused because poverty causes anxiety and stress, which could lead to lower performance in cognitive tasks? Is it because of differences in nutrition patterns between high and low SES populations? Is it because low-SES people have a less stimulating environment? All these questions are still unresolved. Solving these questions is extremely important because this could contribute to the creation of new psychological interventions and educational strategies that could protect low-income people from the effects of their environment on their cognitive health. Ultimately, these outcomes could hopefully significantly contribute towards breaking the poverty cycle, especially in developing countries.

In this project, potential honours students would take part in a large research project that involves working with both low and high income people, in the KL area but also potentially in rural areas of Malaysia and other countries in SE asia.

2) The cognitive neuroscience of decision-making.

I can offer opportunities of honours projects on the topic of decision-making processes, using cognitive neuroimaging methods (EEG/ERP). These projects involve lab work using the EEG facilities of the Neurobusiness Behavioural Lab. Possible topics are the following:

- 1) Neural correlates of purchasing decisions in a virtual shopping task.
- 2) What are the brain mechanisms involved in a bargain? What are the neural markers of accepting / rejecting offers during a bargaining process?
- 3) What are the brain mechanisms of accepting / rejecting offers in auctions.
- 4) What are the factors influencing risk aversion in decision-making?

Dr. Tam Cai Lian
Director, Master of Professional Counselling Course
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Dr. Tam is interested in counseling related topics as well as the below:

Project 1: Investigation of Physical Exercise among Ethnic Groups of Malaysian Adults

The objectives of the present study would be to examine physical activity related to socio demographic factors among multi ethnic groups of Malaysian adults.

Project 2: Employees' coping strategies: Response to Occupational Stress

This research project is inextricably related to public health as occupational stress and psychological strain affect the well-being of individuals. The coping strategies found in the study can be used as bases to reduce occupational stress and psychological strain. The findings of the study will also be beneficial to the different professionals as it is plausible to believe that once the causes and consequences of occupational stress are uncovered, remedial actions can be taken to mitigate the problem of high turnover rate in the various industries.

Project 3: Perceived social support, socio-economic status and psychological well-being of young adults in Malaysia

While the influence of physical health on human functioning has been extensively studied in recent decades, the relationship between socio-economic status and psychological health is now attracting more academic interest. This study aims to examine the inter-relationship between gender, level of perceived social support and mental health status. Results of this study may serve as reference for the mental health professionals to plan their efforts in improving society's mental health effectively. For example, community-based mental health care providers should strive to examine the impact of SES, social network and client concerns that affect their mental health state.

Dr. Karen Golden

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Project 1: Research topics related to parenting.

Project 2: Autism Spectrum Disorder (ASD): a range of topics within the domain of ASD that may be connected with the ongoing Malaysian-Australian Autism Sleep Health Program. There is also a comparison group of typical children.

Wellbeing and resilience of parents/families of children with Autism Spectrum Disorders in Malaysia

Environmental influences on autism-spectrum disorder

Project 3: Research topics related to sleep.

Project 4: Non-suicidal self-injury (NSSI) in the Malaysian context.

Project 5: Psychological aspects of acceptance of nature-based solutions. Nature-based solutions simultaneously provide environmental, social and economic benefits by bringing more nature and natural features and processes into cities, landscapes and seascapes.

Other topics in the area of cross-cultural, family well-being, and clinical psychology could be discussed.

Dr. Lee Shu Chin

Dr Lee is interested in advising topics in counselling psychology that involve qualitative or mixed methods design. The scope can be discussed according to the specific student's interest.

Project 1: Cognitive Behavioural Therapy (CBT) for:

- Anger and Aggression among the male and female adolescents / undergraduates / special needs group
- Anxiety and Social Phobia

Project 2: Gender differences in anger expressions and the etiological factors that contribute to anger

Project 2: Incorporating Creative Art and Play therapy in CBT for anger management

Project 3: Emotional regulation of self-injury among the adolescents

A/P Dr. Shamsul Haque

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Project 1: Organization of autobiographical memories within the autobiographical knowledge structure

Project 2: Autobiographical memory in psychiatric patients

Project 3: Culture and the construction of autobiographical memories

Project 4: Autobiographical memories as guided by political and cultural life scripts

Dr Vanlal Thanzami

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Predictors of aggression and exploring different forms of aggression such as direct, indirect and displaced aggression; reactive and proactive aggression

Exploring the relationship between need for revenge and personality factors associated with vengefulness, such as anger rumination – dissipation and trait forgiveness, and how they relate to different forms of aggression

Cross-cultural variations in aggression with specific focus on cultural values, sex differences and conflict resolution tactics

Evolutionary concepts in aggression: genetic-relatedness and violence (e.g. Cinderella effect) across cultures

Intergenerational transmission of conflict tactics

Intimate partner violence

Honour-based violence

Attribution of victim blame, perpetrator blame, and perpetrator punishment

Psychopathy, narcissism and borderline personality disorder

Cyber bullying - perpetration and victimisation

Criminal computer behaviour

Exploring the psychological impact of the use of social networking sites and mobile technology

Dr Brendon Robert Tagg

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Dr Brendon is interested in advising topics in social psychology that involve qualitative or mixed-methods design. The scope can be negotiated according to the specific student's interest.

Project 1: Malaysian national school uniforms and national identity

This project will involve examining the relationship between Malaysia secondary school students' and teachers' experiences of national school uniforms.

Project 2: Play and creativity within the Malaysian education system

This project will involve extending an undergraduate research project that investigated the 'edutainment' centre KidZania Kuala Lumpur.

Professor Daniel D Reidpath

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Daniel Reidpath is the Professor of Population Health in the School of Medicine and Health Sciences. His undergraduate degree was in Psychology and Philosophy and his PhD was in Cognitive Psychology, specifically in the area of judgement and reasoning.

Life, Death and Moral Judgments

You are standing on a footbridge watching the traffic pass beneath. Standing next to you is a stranger about twice your size. A trolley bus is driving out of control and will crash killing the five people on board. You realise that if you push the stranger off the bridge into the path of the trolley bus you will be able to stop the trolley, saving the five lives, but killing the stranger. What do you do?

This is the classic “Trolley Problem” widely discussed in Psychology (Shallow, Iliev, & Medin, 2011; Kortenkamp & Moore, 2014; Greene, 2014), Philosophy (Thomson, 1976; Foot, 2002), and Economics (Lanteri, 2010). How people behave and how they reason about the trolley problem is important, because it potentially tells us something about personal moral reasoning and bigger resource allocation questions. When can society sacrifice the wellbeing of a few to save or improve the wellbeing of the many: always, sometimes, or never?

In Philosophy the trolley problem is an armchair “thought experiment” used to explore issues of deontological and consequentialist moral philosophy. In Psychology it is used experimentally to explore moral reasoning within a Cognitive Psychology framework of judgment and reasoning experiments.

There are a number of un(der)-explored questions related to the trolley problem open to experimental investigation. A few examples would be:

- How does the decision vary according to the number of lives saved?
- If only a percentage of lives on the trolley bus are saved, how does this affect the outcome?
- How does the above vary with the directness of the intervention (push the stranger in front of the trolley OR flip a switch that results in the strangers death, and the saving of the lives on the trolley)?

More exploratory approaches are under-utilised in the trolley problem and would be valuable for what they could tell us about the reasoning:

- Can people make trolley decisions and explain how they reached the decision they did?

An excellent review of the trolley problem can be found in (Bruers & Braeckman, 2014).

References

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