Dr Sharon Abrahams

1. **What can the study of neuropsychology bring to our understanding of social behaviour. Discuss in relation to neurological populations.**
   In this literature review the students should review neuropsychological studies which have investigated social behaviour in neurological populations. They should focus on clinical groups who have a particular difficulty with social behaviour and discuss how these studies have investigated the cognitive underpinnings of these problems, including concepts such as theory of mind. They should make a comparison between the social cognition deficits in these disorders and attempt to relate the findings to normal models of functioning.

**References**

2. **Within clinical neuropsychology how can we assess a deficit in social cognition?**
   A number of different experimental measures have been proposed to test social cognition, but none of these are widely used in clinical neuropsychology. What are the most promising measures for development as tools for clinical neuropsychology?

**References**

Dr Thomas Bak

1. **Bilingualism and Cognition**
   This is arguably one of the most controversial topics in cognitive psychology at the moment. Advocates of a "bilingual advantage", particularly in executive functions, clash with those who claim, hundreds of studies have been misguided by bias and misrepresentation and there is no difference whatsoever in cognitive functions of mono- and bilinguals. This debate is not only relevant for the field of bilingualism but illustrates the complex interplay of evidence, interpretation, ideology and personal involvement in modern science.

2. **Immigration and Cognition**
   Immigration is one of the most important phenomena in current world. While its social aspects have been intensively studied, much less in known about possible cognitive characteristics of people who are more likely to migrate. Are there any cognitive feature that predispose some individuals to migrate while other stay at the same place? Does migration have an effect on cognitive functions?

**References**
The literature review should be, in my view, an exciting journey of discovery. While I am happy to offer guidance both in selection and evaluation of papers, I do not wish to limit the spirit of exploration by giving specific references in the beginning.
Prof Tim Bates

1. Can we raise IQ?
You would review one of the following claims regarding increasing IQ environmentally:

1. Why did Raven scores increase over 15 points this century? (Flynn, 2009)
3. Does working memory training raise IQ? (Melby-Lervag & Hulme, 2012; Redick et al., 2012; Shipstead, Redick, & Engle, 2010)
4. Strategies for problem solving (Fox & Charness, 2010; Freund & Hotting, 2011)
5. Does attending school raise IQ? (Brinch & Galloway, 2012)

2. Does personality have many Facets or (just a few) aspects?
Researchers agree that there are five or six major domains of personality. Less agreement exists about more focused levels beneath this. You would review the literature suggesting that each domain has 6-facets underneath it (NEO PI-R model) compared to a model in which each domain is characterized as having two major “aspects” (DeYoung, Quilty, & Peterson, 2007)

3. Can we raise Grit?
Persistence and ambition play a role in determining social attainment. Can they be altered? How do they sit alongside personality and IQ as causes? (Duckworth, 2011; Duckworth, Quinn, Lynam, Loeber, & Stouthamer-Loeber, 2011; Duckworth & Seligman, 2005; Mischel et al., 2010; Walton & Spencer, 2009)

References
development, and cognition. Section B, Aging, neuropsychology and cognition, 17(2), 191-204. doi: 10.1080/13825580903042668.


Dr Nic Chevallier

Shall we attempt to train executive functioning in early childhood?

Executive functioning—the goal-directed regulation of one’s own thoughts, actions, and emotions—is still largely immature in young children, who are prone to tantrums, struggle to concentrate and to stay on tasks. Yet, young children are already expected to self-regulate effectively (e.g., sit patiently at restaurants, complete activities at pre-schools/nurseries, etc.). Executive functioning during early childhood is indeed one of the best predictors of critical life outcomes such as academic achievement, income, health, and criminality. Children with lower executive functioning (relative to their peers) are at higher risks regarding these outcomes. Many recent training programs have attempted to enhance executive functioning in early childhood, often without considering potential consequences of these training programs on other cognitive abilities that may benefit from lower regulation (e.g., language, creativity). In this review, students will explore the promises and challenges of executive function training in early childhood, evaluate the outcomes of extant training programs, question the potential beneficial and aversive consequences of such interventions on child development, and consider alternatives.

References


Prof Sergio Della Sala

1. Neuroscience in Education

In the past ten years, there has been growing interest in applying our knowledge of the human brain to the field of education, including reading, learning, language, and mathematics. Teachers themselves have embraced the neuro revolution enthusiastically. A recent investigation in the US-based journal Mind, Brain, and Education showed that almost 90% of teachers consider knowledge about brain functioning relevant for the planning of education programmes. This has resulted in the development of a number of new practices in education: some good, some bad, and some just crazy. The neuro- prefix is very fashionable nowadays, and neuroeducation is just one of the myriad offsprings.

On the other hand, we shouldn’t ignore the good practices and innovations in education thanks to the developing neuro revolution. One such finding, named spaced practice, has been replicated many times; it shows that distributing learning over time is more efficient than massing it all together. For example, if students stockpile learning just before an exam, they may do well enough, but if they want to retain the material in the long term, then retrieving it via multiple tests is much better.

Should then teaching be influenced by knowledge from Cognitive Psychology or Neuroscience? Find evidence and discuss.

2. Pseudoscience Surplus

We are besieged by misinformation on all sides. When this misinformation masquerades as science, we call it pseudoscience. The scientific tradition has methods that offer a way to get accurate evidence and decrease the chance of misinformation persisting for long. The application of these rules marks the difference between science and pseudoscience. Perhaps more importantly, accepting these rules allows us to admit what we do not yet know, and avoids the pomposity too often associated with the notion of scientific authority.

Are notions coming from Psychology or Neuropsychology contributing to this flurry of pseudoscientific claims? Find examples and discuss.

Dr Morag Donaldson

1. How does bilingualism affect children’s development?

To what extent and in what ways does the cognitive and linguistic development of children who are acquiring two (or more) languages differ from that of monolingual children? There is a substantial body of evidence indicating a “bilingual advantage” on a variety of non-verbal cognitive tasks, but this effect varies according to such factors as the type of task, the level of the children’s linguistic proficiency and the nature of their bilingual experience. Your review could explore the nature of these variations and consider what conclusions can be drawn regarding the psychological processes that may underpin the bilingual advantage. Alternatively, your review could focus on how bilingualism affects children’s linguistic development in the two languages. For example, does the rate of language development differ between bilingual and monolingual children? To what extent does this depend on such factors as the particular measures of language development that are used and the nature of the input that the child is receiving in the two languages?

References


2. Children’s understanding of emotions
Children’s ability to understand their own and other people’s emotions is an important aspect of their socio-cognitive development that involves acquiring and integrating a complex set of skills. How does children’s ability to make judgements about and reason about emotions change developmentally? How do these developments relate to other aspects of development such as false belief understanding, working memory and language, as well as to individual differences (between children and between their parents)? What are the theoretical and practical implications of findings on these issues?

References

Dr. Leonidas Doumas
1. What’s so special about relational thinking?
Human cognition seems unique in the animal kingdom. After all, only humans build skyscrapers, send each other to the moon, and reason about the sizes of different infinite sets. (As an aside, there are different sizes of infinity, with some infinities infinitely bigger than other infinities.) One principled (and, to my mind, well argued) position, is that humans possess the ability to represent and reason about relations (like above, or loves, or suppresses) such that they are represented independently of their arguments (e.g., we represent above the same way whether a circle is above a square, or a General is above a Colonel). In this topic, students will review and evaluate some of the arguments for and against the hypothesis that human relational representations are fundamentally different than those of non-human animals, and that these representations might be what sets human cognition apart.

References

2. What is a theory of mind?
The concept of theory of mind is one of the most prominent and well researched topics in all of human developmental science (perhaps even all of psychology). In brief, one has a theory of mind when one possesses some understanding of the hypothesised mental states and potential mental states of other agents in the world. Despite its primacy as a research topic, there are some strong disagreements about what theory of mind actually is, and even whether or not it actually exists. In this topic, students will review and evaluate some of the prominent theories of theory of mind.
References

Dr Catharine Gale
What do we know about the relationships between intelligence in youth and use of tobacco, alcohol and drugs later in life?
Cognitive epidemiology is a relatively new field of research that focuses on the relationship between scores on tests of intelligence and subsequent health outcomes. How people score on tests of intelligence in childhood, adolescence or early adulthood may predict their behaviour later in life as regards smoking, or use of alcohol or drugs. This review would critically examine the evidence on whether intelligence in youth is linked to such outcomes as taking up or quitting smoking, alcohol intake, binge drinking, use of illegal drugs, and alcohol- or drug-related disorders, discuss the possible explanations for any association and consider how further research could add our knowledge.

Starter references
Gale CR et al. Intelligence in Early Adulthood and Subsequent Hospitalization for Mental Disorders. *Epidemiology* 2010;21;70-77.
Taylor MD et al. Childhood mental ability and smoking cessation in adulthood: Prospective observational study linking the Scottish Mental Survey 1932 and the Midspan studies. *Journal of Epidemiology and Community Health* 2003;57:464–465
Wennerstad KM et al. Associations between IQ and cigarette smoking among Swedish male twins. *Social Science and Medicine* 2010;70:575-81

Dr. Elena Gherri
Spatial remapping of touch
Whenever we want to respond to a tactile stimulus presented on our skin, our brain has to localize not only the position of the stimulated skin with respect to the body (was it my right hand that was touched?), but also the position of the stimulated body part with respect to external space (is my right hand on the table?). This process called spatial remapping on touch involves multiple spatial coordinate transformations of the stimulus locations from somatotopic to external space. In this review we will examine a growing body of evidence suggesting that spatial remapping of touch occurs automatically and soon after stimulus presentation. However, we will also evaluate some evidence showing that under certain circumstances remapping of touch is not a mandatory process.

Starter references
Dr Wendy Johnson
1. Where in the brain and what is intelligence?
References

2. What is unique about human intelligence in the animal world?
References

Dr Billy Lee
1. Culture shock and cultural integration How are people affected by transitions to new living situations such as after emigration?
Review literature on migration or studying abroad. Focus on psychological factors such as mental health, well-being, culture shock, cultural identity, and cultural bereavement. You should identify a particular population or national group such as Chinese migrants to Britain.
References

2. Psychology of the "talking cure"
What are the psychological processes underlying the talking therapies? For this review you may identify a particular therapeutic model; a particular therapeutic process e.g. transference, projection, treatment resistance; or other issue significant to counselling and psychotherapy e.g. concepts of distress, client or therapist factors, counselling special populations.
References

Dr Adam Moore
1. What are protected/sacred moral values?
Psychologists have proposed the term protected values (or sacred values) to describe beliefs or commitments people hold and which they strongly resist making compromises on. Discuss the research on protected/sacred values. What are they, what are their properties, how do they impact people’s judgements and decisions?

Dr René Mottus

1. What are personality traits?

A bulk of current literature on human personality is focused on individual differences in personality traits. Traits reflect individual differences in consistent patterns of behaviour, thinking and feeling. According to much of the current personality literature, everyone is assumed to have a standing on a set of continuous personality dimensions, the most famous of the sets being the Big Five. However, it appears that there is no consensus yet as to what the traits are. Do the traits refer to real psychological properties of human mind that cause the observed variation in behaviour, thoughts and emotions? If so, is there any hope to reduce traits to stable genomic/anatomical/physiological variations among people? Or are traits merely descriptive summaries of individual differences in behaviour, thoughts and feelings, without reflecting any specific properties of mind and therefore not being tractable to stable genomic/anatomical/physiological variations? Or are they something else?

References:

2. Spousal similarity in personality characteristics

Are married people more similar to each other in terms of their personality characteristics than just randomly selected individuals? If so, is it because similar people tend to marry or because they become more similar over time?

References:
Dr Mante Nieuwland

1. Semantic illusions in language comprehension

While language comprehension is generally efficient and accurate, not all linguistic input is processed to the fullest degree at the earliest possible moment. One famous example is people’s inability to spot the error when asked the question “How many animals of each kind did Moses put on the ark?” Which factors determine semantic illusions? Are they perhaps indicative of general processing mechanisms that trade-off speed and accuracy? Are some people especially vulnerable to illusions?

References:

2. Establishing truth-value in language comprehension

Establishing whether expressions are true or false is something that people do regularly during communication. This involves mapping incoming statements onto our pre-stored memory representations of the world. Which linguistic, cognitive and neuropsychological factors influence this process? What are the underlying brain mechanisms for establishing truth-value?

References:

Dr Antje Nuthmann

Central vision loss: ramifications and adaptive strategies

Imagine not being able to read because you cannot see well enough. This happens when central vision is damaged, e.g., due to macular degeneration (MD). The subjective experience is a blurred spot in the centre of vision that is becoming gradually worse, making it difficult to read and recognize faces. While the juvenile form of MD is rare, age-related MD is the main cause of diminished visual acuity in the elderly. One way to investigate the effects of the disease on everyday behaviour like reading, visual search and scene perception is to simulate the condition in normally sighted individuals using gaze-contingent moving masks. In addition, clinical research has examined MD patients to describe their performance deficits and strategies for the (partial) compensation of their impairment. The purpose of the literature review is to summarize and critically evaluate recent research on the topic.

References:

Prof Martin Pickering
1. Do people predict what other people are going to say?
Much research in psychology of language suggests that readers and listeners interpret language as soon as they encounter it. But recent work suggests that they may try to "get ahead of the game" and predict what they are likely to encounter. Do they do this, and if so, how?
References

2. Why are people so successful at holding conversations?
Dialogue "should" be harder than monologue, because the interlocutors have to switch between speaking and listening, decide when to speak, respond to their interlocutor on the fly, and so on. But it does not seem to be. Is it because interlocutors somehow share representations?
References

Dr Hugh Rabagliati
Do we have to be aware of what we’re reading to understand it?
Language and awareness are closely linked: It seems absurd to imagine that we could understand a sentence without being aware of it. But over the last few decades, there have been a number of claims that people can understand the meanings of words and perhaps sentences without being aware of what they are reading. Some of these claims are outlandish (e.g., subliminal advertising), but others are backed by scientific evidence. We will weigh up whether we need to be aware of a word in order to understand it.
References

Dr Caroline Watt
What psychological factors might contribute to the experience of precognitive dreaming?
One of the most commonly reported paranormal experiences is of having seemingly dreamt about a future event, known as precognitive dreaming. While such experiences are commonly reported by members of the public, controlled laboratory studies do not provide persuasive evidence of a genuine paranormal process. Therefore it is likely that other contributory factors are coming into play. This literature review will describe and evaluate the principal psychological factors that have been proposed to account for these experiences. This literature review topic can be broadened to encompass paranormal experiences in general.

Starter references:

Dr Sue Widdicombe
Psychology and terrorism
1. What does social psychological research taught us about terrorism, and what issues have shaped and hindered progress in psychological understanding? In 2000, Crenshaw identified several problems in research, which included ‘defining the concept, collecting empirical data, building integrative theory, and avoiding the attribution of terrorism to personality disorders or “irrationality”’. Has research since then succeeded in addressing these issues? What do you think is an appropriate agenda for future research?
References:

2. Is there a social psychology of citizenship?
The idea of citizenship has become important in discussion of immigration, social behaviour, education, political participation and so on. Can it also contribute to our understanding of multiple social psychological phenomena such as conflict, solidarity, identity, and attitudes? To answer this question, we also need to ask what is meant by citizenship, how is it studied, how is it significant?
As a starting point, see: