

UBEL DTP Winter Conference

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Abstract Book



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Session 1

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Food For Thought: Can we reactivate historical trials to determine the impact of infant-formula-composition on long-term cognitive development?

Background: Globally, fewer than 40% of infants below six months of age are exclusively breastfed. Guidelines on the composition of breastmilk-alternatives such as infant formulae and follow-on formulae are largely based on Randomised Controlled Trials (RCTs) conducted over the past three decades. Yet, while RCTs are considered the gold-standard of evidence, they are notoriously expensive and limited in their ability to determine long-term outcomes. Consequently, most infant formula-guidelines are based solely on short-term safety data.

Methods: To strengthen current evidence around the long-term effects of infant-formula-composition, I will reactivate a series of 11 of these historical RCTs. Infancy is a critical period of rapid brain development, this study will therefore focus on the effect of the formulae on cognitive development.

Together, the 11 RCTs form a substantial part of the evidence-base around formula-composition. All of them struggled with low response-rates in later years, leaving questions about the cognitive trajectories of the infants and the adults they become largely unanswered. The RCTs were conducted in the UK from 1982-2001. It is therefore possible to link the RCTs to national education data and hereby determine the long-term cognitive effects of the interventions.

Impact: While contributing to the evidence around infant-formula-composition, this project will also act as a proof-of-concept study: there is a wealth of dormant historical trials in the UK and linkage to administrative health and education data might be a novel and cost-effective solution to the problem of attrition in monitoring long-term impact and safety of many such common and essential interventions.

Holly Walton

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Assessing fidelity of delivery of, and engagement with, the Promoting Independence in Dementia intervention.

Background: Psychological and social interventions help people with dementia to live independently. One such intervention is 'Promoting Independence in Dementia' (PRIDE), a course of three face-to-face sessions delivered by dementia advice workers across four sites in England. To evaluate PRIDE's effectiveness, it is necessary to assess the extent to which it was delivered as planned ('fidelity of delivery'), and engaged with by participants.

Aim: To assess fidelity of delivery of, and engagement with the Promoting Independence in Dementia intervention.

Method: In a longitudinal observational and self-report study, approx. 120 intervention sessions were audio-recorded and 60% were randomly selected for analysis. Fidelity and engagement were assessed by coding transcribed audio-recordings using checklists and guidelines developed for this study. Dementia advice workers and participants completed self-report measures of fidelity and engagement after each session. Descriptive statistics will be used to report the percentage of intervention components delivered as planned and of

participants' level of engagement. Researcher, dementia advice worker and participant ratings of fidelity of delivery will be compared.

Results: Since data collection is underway, interim preliminary findings will be presented.

Discussion: Results of this study will indicate the extent to which PRIDE was delivered and engaged with as planned. This will inform the interpretation of the findings of the effectiveness trial.

Kathryn Bates

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Characterising mental imagery in children with ADHD

Abstract: As we communicate, navigate and problem-solve our way through life, we are constantly generating and manipulating mental representations. Mental imagery, or “seeing with the mind’s eye”, is an integral part of a child’s ability to make sense of their world; whether it be anticipating whether a book will fit on a shelf, multiplying numbers together or telling a story. Mental imagery requires high attentional demands (Ishai, 2009), and has also been found to predict working memory capacity in adults (Keogh and Pearson, 2014). Children with attention-deficit/hyperactivity disorder (ADHD) are characterised as possessing executive function deficits (which includes working memory) (e.g. Rapport et al., 2008; Sjöwall et al., 2013), thus it stands to reason that this will have a negative impact on the development of mental imagery. Therefore, my primary aim is to characterise mental imagery in ADHD, at the behavioural and neural level, and to investigate its relationship with executive functions in ADHD. It is expected this will further elucidate the relationship between mental imagery, executive functions and attention in typical and atypical development.

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Prima Alam

London School of Hygiene and Tropical Medicine

Qualitative review of current issues affecting young people’s sexual and reproductive health in Bangladesh

Many young people – aged 10-24 years – in low-income settings face myriad barriers with regard to their sexual and reproductive health (SRH). In Bangladesh, widespread gender norms and socio-sexual taboos limit communication around SRH as well as access to reliable information. Thus, young people suffer from greater negative health outcomes and lower rates of service use.

This systematic review examines existing qualitative research on key issues affecting young people's SRH in Bangladesh. Five databases were searched using a combination of relevant

search terms, and findings from 16 articles which met the inclusion criteria were analysed using a thematic approach.

Five themes emerged and were grouped by marital status. Unmarried young people shared common concerns regarding puberty and sexuality – including premarital sex, menstruation and harassment. These concerns were not being adequately addressed due to prevailing gender norms and stigma. Early marriage was also seen as a major impediment to the SRH of married girls with adverse implications closely linked to age at first marriage.

A life-course approach to SRH research is recommended to capture experiences of health on a continuum and build an evidence base for policymakers and healthcare professionals. Culturally-sensitive sexuality programmes are urgently needed to help develop competency in sexual socialisation.

Jess Massonnié

Birkbeck

The effect of classroom noise on creativity in primary school children.

During a school day, pupils are exposed to 72dB of noise on average (Shield & Dockrell, 2004). Following adult findings (Mehta, Zhu & Cheema, 2012), we investigated whether classroom noise promotes children's creativity. To better understand the mechanisms behind noise effects, we assessed the relationships between executive functions (working memory, attentional control) and creativity performance in silence and noise.

Forty-four children (from 4.92 to 11.33 years-old; $M = 8.17$) were prompted to find unusual uses for a pencil/bottle (AUT) and to suggest consequences of two imaginary situations (JS). Each pupil performed these creativity tasks in silence, and under 65dB of classroom noise. The number of ideas and their originality were measured. Attentional control, visuospatial and verbal working memory were assessed in silence.

Noise selectively impaired the originality, but not the number of ideas given by pupils. There were no significant correlations between executive functions and creativity scores in silence. However, when children performed the AUT under noise, better attentional control was associated with a higher number of ideas, and higher visuospatial working memory with more original answers.

To summarize, multi-talker noise seems to affect children's and adults' creativity differently.

Stephanie Gibb & Sally Palmer

UCL

Children's Understanding of Competitive Intergroup Contexts and The Development of Intergroup Attitudes

Recent research shows how investigating the development of competitive understanding might advance knowledge on the development of intergroup attitudes (i.e., how members of one group think about, and behave towards, members of another group). Research has extensively explored the role of intergroup processes within competitive *contexts* in adults (Sherif et al, 1961; Maxwell-Smith et al, 2016; Adachi, Hodson, & Hoffarth, 2015) and in the context of social exclusion in childhood (e.g., Abrams & Killen, 2014; Abrams, Rutland, Pelletier, & Ferrell, 2009; Richardson et al., 2014). These studies do not explore specifically how knowledge of competition, may inform children's understanding of intergroup relations. We present a preliminary study examining this question and a proposed outline of stages of future research.

In a preliminary study participants (N=160) aged 4-8 years old considered scenarios involving ingroup/outgroup peers involved in a “snakes and ladders” game (Gibb & Rafetseder, 2015). Participants were asked to evaluate ingroup/outgroup peers who violated a norm to cheat, where cheating advantaged the ingroup vs the outgroup. Children were more favourable to outgroup members when their cheating actions advantaged the ingroup. Social-moral reasoning was explored and will be discussed in relation to recent (e.g., Lam & Seaton, 2016) and proposed research.

Alexandra Bulat

UCL

‘The brightest and the best’, us, and the rest: Framing EU migration in the 2016 EU referendum campaign

The 2016 referendum campaign on the United Kingdom’s continuation of European Union (EU) membership had two dominant themes: the economy and immigration. ‘Remain’ campaigners preferred to focus on the former, whereas ‘Leave’ supporters put more effort into discussing immigration. Although there is consensus regarding the relevance of immigration for the vote, there is little research systematically examining the detail of this campaign issue. This study focuses on how immigration was spoken about in political ephemera distributed by various organisations and individuals during the referendum campaign. A frame analysis illustrates how different types of movements of people were portrayed in this form of political communication. Although the issue at stake was ‘uncontrolled EU migration’, a significant proportion of materials spoke about non-EU populations. Overall, a positive case for EU freedom of movement as a whole was absent. Remain campaigns chose to focus on specific groups, such as British people and ‘the brightest and the best’ EU students and professionals, while ‘the rest’ of migrants was left to be criticised by Leave arguments. The analysis also reflects on how EU migrants did not have a voice through these media.

Session 2

Edward Morgan

London School of Hygiene and Tropical Medicine

Reconstructing the historical demography of Navrongo, Ghana from parish card microdata, 1900-2000

Prior to the beginning of data collection for the Navrongo Health and Demographic Surveillance Survey (HDSS) in 1993, little is known about the demographic history of Northern Ghana. The aim of this study is to reconstruct historical demographic trends using recently collected parish cards from the Cathedral Basilica of Our Lady of Seven Sorrows in Navrongo, Northern Ghana. Parish cards of this kind offer great promise for demographic reconstruction, as they often contain detail of vital events for the entire life course. The availability of life course data minimises the need for intensive family reconstitution work to be carried out on the Navrongo Historical Demographic Dataset (NHDD).

This paper discusses the development of the NHDD and discusses the observable trends in childbearing, marriage and mortality and how those trends have been influenced by the changing political and religious environments of the twentieth century. Furthermore, this study compares parish register data with contiguous demographic data from the Navrongo Health and Demographic Surveillance Survey (HDSS) in order to validate and establish the reliability of parish register data as a source of demographic information.

Cristina Perez

UCL

'Childlessness' in Colombia: Exploring the trends, associated factors, and intentionality of non-parenthood since the 1980s

Between 1965 and 2015, Colombia's total fertility rate (TFR) declined by 5 children per woman, reaching the below-replacement level of 2.0. Colombian women now outperform men at every level of education, and between 1985 and 2005, female labour-force participation rose faster than in any other country in the region. Against a backdrop of profound sociodemographic change, this paper presents findings from the initial quantitative analysis of a two-part mixed methods study that aims to improve our understanding of childlessness beyond infertility within Latin America. Using data from a series of Colombian Demographic and Health Surveys and censuses, this paper explores the trends in Colombian childlessness from the 1980s to the present and asks who is most likely to be childless, how this changes over the reproductive life course, and whether childlessness is 'voluntary' or not. Using descriptive statistics and generalised linear modelling, it explores the factors associated with female childlessness (as compared to motherhood) around ages 30 and 40. Partnership status (never married), higher education, and higher socioeconomic status were strongly and positively associated with female childlessness, and 'voluntary' forms of childlessness, in particular, have increased steadily over the past 30 years.

Cathy Rogers

Birkbeck

Being united. How a creative use of mixed methods could help us better understand complex psychological phenomena.

I will present an example of an integrative mixed methods approach to studying the relationship between creativity and executive control in primary school children. The approach encompasses standardized laboratory tests as well as qualitative assessments of real world creativity. The work will be described in the context of a belief that quantitative and qualitative methods are not as incompatible as they are sometimes portrayed. Both involve the analysis and interpretation of meticulously gathered data and the weaving together of findings into a communicable narrative; as such they can be seen as part of a rich continuum. Moreover, given that all experimental methods have limitations and that specific limitations tend to aggregate around specific methodologies, if we are serious about trying to fathom complex psychological phenomena we need to strategically deploy contrasting methodologies. Laying limitations upon like limitations is a recipe for weakness; in our attempt to build gemstones, we risk producing only cleavable sheets of mica. The psychological world is complex. We need to study it with a fearless and creative approach to the methodologies which will reflect it in the truest light.

Elizabeth Worster, Hannah Pimperton and Mairéad MacSweeney

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Eye movements during visual speech perception in deaf and hearing children.

Deaf children find it very difficult to learn to read. Speechreading (lipreading) correlates positively with reading in deaf children and adults (e.g. Mohammed et al., 2006) and is a positive longitudinal predictor of later reading outcome (Kyle & Harris, 2010). However, little is known about the strategies deaf children use when watching visual speech. In the current study we asked whether better speechreaders look more at the mouth during visual speech perception than poorer speechreaders. We collected eyetracking data from 33 five-to-eight year old deaf children and a comparison group of hearing children during a speechreading task. In the speechreading task the children watched videos of silently spoken sentences and repeated, in sign or speech, what the speaker said. The proportion of time a child spent looking at the mouth during speech positively predicted the number of words they could repeat. In addition, many children watched the mouth during the speech but shifted their gaze to the eyes when the model was not speaking. The extent to which the children used this communicative 'social tuning' pattern positively predicted their speechreading performance. This suggests that those children with good understanding of turn-taking also have good speechreading skills at the lexical level.

Karen Lillie

UCL

**Articulating Sociological and Historical Approaches:
A Proposed Way to Critically Revisit Questions about Global Class Formation**

This research seeks to explore and potentially challenge existing work that positions elite educational institutions as actors in the formation of a global elite class through the examination of one economically elite, international secondary school in Switzerland. Blending sociological and historical approaches fruitfully and critically investigates how the school's dynamic role over time interacts with current students' meaning-making processes and productively contests assumptions about whether elite institutions consciously engage in strategic performances that facilitate processes of global class formation.

Although important work has already begun to critically examine global class formation in elite school settings, essential questions remain which if engaged with will contribute to deeper understandings and theorizations. My research thus aims to advance this area of the field by asking 1) whether a shared sense of culture emerges amongst those attending the school; 2) if the school can be understood as a strategic actor in class formation if historical documents reveal a more haphazard institutional trajectory than that which is presented by the current leadership; and 3) whether the school can exchange economic capital for social and cultural capital that can then be translated from any given national socioeconomic order to a transnational one.

Session 3

Annie Brookman-Byrne

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Inhibitory control in adolescent science and maths reasoning

According to traditional views of learning in science and maths, naïve theories are replaced in the face of new evidence. However, recent neuroimaging research with adults suggests that old theories remain even when new ones are learnt: areas of the brain associated with inhibitory control (anterior cingulate cortex and dorsolateral prefrontal cortex) are more active when solving counterintuitive problems. Inhibitory control is therefore thought to enable the suppression of naïve theories or misleading perceptual cues. The relationship between inhibitory control and reasoning about counterintuitive science and maths concepts in adolescence is largely unknown. Adolescence is a particularly important time for science and maths reasoning as pupils are taught increasingly complex concepts and work towards their compulsory exams in these subjects. I will present findings from a behavioural study and a neuroimaging study (fMRI) that indicate that both response inhibition (where an action must be suppressed) and semantic inhibition (where meaning must be suppressed) play a role in effective science and maths reasoning in adolescence. Poor counterintuitive reasoning in science and maths appears to partly reflect poor inhibition as opposed to simply a lack of knowledge or understanding. Educational implications of these findings will be discussed.

Gill West

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Procedural learning and language-related attainment in children

Impaired procedural learning has been suggested as a possible cause of developmental language disorder (Nicholson & Fawcett, 2007; Ullman & Pierpont, 2005), but research has so far delivered inconsistent results. The majority of studies use extreme group designs, frequently with small sample sizes and unreported task reliability.

In the first of two studies, we tested a large representative sample of children on a range of procedural learning (Serial Reaction Time, Hebb Learning and Contextual Cueing) and declarative learning tasks and language related attainment measures. We assessed the reliability of all tasks. Attainment correlated with verbal explicit learning, but the procedural learning tasks, of a similar length to those in the literature, were found to have poor reliability and failed to correlate well with each other, or with attainment.

In the second study, children completed an extended 1000 trial serial reaction time task. Attentional variability was assessed throughout. Latent variable path analysis showed that attention during the task accounted entirely for the relationship between procedural learning and attainment.

These findings highlight the importance of establishing task reliability, as well as considering the potential effects of individual differences in basic cognitive processes such as attention in all investigations of procedural learning.

Maria Nolan

SOAS

Privacy and Domesticity among Young Urban Chinese

The aim of my research is to conduct the first anthropological investigation of a phenomenon, *zhai*, in contemporary urban China. A popular word on the Chinese Internet and among young urban Chinese within the past 10 years, *zhai*, which can be literally translated as 'residence', refers to a tendency towards spending the majority of one's time at home. While taking *zhai* as its focus, this project explores notions of privacy and home among youth in Beijing, through extensive fieldwork in the online and offline environments they inhabit. Alongside striking changes that have taken place in the Chinese urban landscape in recent decades, profound shifts have occurred in the structures and practices of home, with the emergence of enhanced domestic lifestyles centred on notions of privacy, comfort and security (see e.g. Zhang, 2008). This research examines the ways in which these changes have influenced perceptions of and attitudes towards home among urban youth, the role of new media technologies in shaping home life, and the appeal of being *zhai* in one of the world's most populous capital cities.

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Brenda Hayanga

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The efficacy of social isolation and loneliness interventions for Black and Minority Ethnic individuals aged 65 and over living in the UK

This study aims to investigate whether social isolation and loneliness interventions are effective for older community-dwelling black and minority ethnic (BME) individuals. The different life-course trajectories of these individuals mean that some may suffer from multiple forms of disadvantage thereby increasing their risk of experiencing this problem, yet few studies have explored this issue. Given that the number of older BME individuals is set to increase in the coming decades, more needs to be done. A mixed method approach is adopted and conducted in three iterative phases. Qualitative interviews will first be used to explore social isolation and loneliness in older BME individuals. The findings from the interviews will then be used to shape the research questions of a systematic review of social isolation and loneliness interventions. Finally, the results of the systematic review will form the basis of biographical narrative interviews to be held with older BME individuals. Not only will the use of these diverse methodologies in this iterative fashion make a methodological contribution, the combined findings will add to the sparse literature in this area and provide a richer understanding of what, why and how interventions work to prevent or alleviate this issue in older BME individuals.

Raffaella Fryer-Moreira

UCL

Cosmologies of Crisis: an ethnography among the Guarani-Kaiowá

Environmental degradation in Brazil has led to a severe humanitarian crisis among indigenous groups who depend on these ecosystems to survive. Among the Guarani-Kaiowá of Mato Grosso do Sul the situation is particularly severe, as large-scale agricultural industries have appropriated traditional indigenous land, replacing diverse ecosystems with vast monocultures of soya and corn.

The local cosmologies of this indigenous group articulate complex relations between people, land, and ecologies, and as these relations change - through extensive land dispossession and environmental destruction - new cosmologies emerge which seek to make sense of the crisis they face. My research proposes to examine the ways in which this crisis is locally understood, how these new relations between land, identity, and environment are being re-cast, and how these communities find ways of surviving in the context of ecocide and genocide. I hope to use my research to draw insights on how people cope with extreme environmental and humanitarian crises, and reflect on broader questions of how human beings in other places might find ways to survive in a world undergoing dramatic environmental change.