

The Doctoral
College
Festival of
Postgraduate
Research

Abstracts booklet



University of Brighton
Doctoral College

15 -19 May 2017

Festival Schedule 2017

Monday 15 May, Falmer

10.30-11.00	Opening of the festival. Tea and coffee	Asa Briggs Foyer, CL
11.00-12.30	Keynote lecture: Dr Patricia Fara: <i>A Lab of One's Own: Science and Suffrage in World War One</i>	C218, CL
13.30-14.30	Early Career Researchers discussion panel	115, MFH
14.30-15.30	Communicating with the Media discussion panel	101, MFH

Tuesday 16 May, Eastbourne

10.00-12.30	Work in Progress Presentations (1)	G5, Aldro
10.00-12.15	Work in Progress Presentations (2)	G2, Aldro
13.30-15.00	Managing your Wellbeing as a Researcher workshop	G2, Aldro
15.15-16.30	Tours of Sport and Exercise Science Laboratories	Welkin Labs

Wednesday 17 May, Falmer

10.00-11.30	Planning your Career outside of Academia workshop	E512, CL
12.00-13.00	Dare to do it differently: creative methods workshop	138, MFH
13.00	Research Poster Competition opens	Asa Briggs Foyer, CL
14.00-15.30	Keynote lecture: Prof Steve Fuller: <i>Do we really need more academic research? A hundred year update on Max Weber's 'Science as a Vocation'</i>	Asa Briggs Hall, CL
16.00-17.00	Three Minute Thesis live final	Asa Briggs Hall, CL
17.00-18.30	Drinks reception and announcement of 3MT winners	Asa Briggs Foyer, CL

Thursday 18 May, Grand Parade and Moulseccomb

11.00-12.30	Work in Progress Presentations	202, Grand Parade
13.30-15.00	Managing your Wellbeing as a Researcher workshop	202, Grand Parade
10.30-12.00	Managing your Wellbeing as a Researcher workshop	503, Watts
13.15-14.15	Tours of the Vehicle Simulation Suites and Security Laboratory	Cockcroft & Watts
14.30-17.15	Work in Progress Presentations (1)	310, Watts
14.30-17.30	Work in Progress Presentations (2)	G30, Mithras

Friday 19 May, Falmer

11.00-12.45	Work in Progress Presentations (1)	B503, CL
11.00-12.45	Work in Progress Presentations (2)	B408, CL
14.00-15.30	Keynote lecture: Prof Matthew Weait: <i>Do you know who I am? Law, confession, and the 'normal' body</i>	C218, CL
15.45-16.15	Opposites Attract Collaboration Challenge: Presentations and awarding of the David Arnold Memorial Prize	C218, CL
16.15-16.45	Closing reception and announcement of prize winners	Asa Briggs Foyer, CL

Venue key: CL = Checkland Building, MFH = Mayfield House

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Follow **Brighton Doctoral College** on **Twitter** for news, events and support for research students and their supervisors.

@PhD_Brighton

Tweet about the festival!

#UoBPGR17

See the full festival schedule online:

<http://bit.ly/UoBPGR17>

Welcome to the Festival of Postgraduate Research

Welcome to the Doctoral College's **Festival of Postgraduate Research**. This year, for the first time, we are devoting a whole week in May to celebrating doctoral research at the University of Brighton.

The festival, held at all campuses, draws together events from the annual conferences including the research poster competitions and research students' work in progress presentations, and introduces a range of exciting new elements.

We are delighted to welcome three keynote speakers to the university: **Dr Patricia Fara (Cambridge)** who opens the festival with an exploration of the limits still faced by women in science; **Prof Steve Fuller (Warwick)** who offers a hundred year update on Max Weber's famous lecture, 'Science as a Vocation'; and **Prof Matthew Weait (Portsmouth)** who assesses the impact of the law on people whose bodies it has identified as being dangerous, deceptive and risky.

We are also thrilled to be welcoming back three Doctoral College alumni to offer their perspectives and advice on life after the PhD. Workshops on careers, wellbeing, creative methods, and media savvy feature in the programme, while laboratories at Eastbourne and Moulsecoomb open up their doors to offer a glimpse at the wealth of facilities we have at Brighton and an insight into research being conducted there.

Further highlights include outputs from the teams participating in our interdisciplinary collaborative challenge, **Opposites Attract**, and the display of research photographs and posters at Falmer. If there's an absolute must-see, it's surely the **Three Minute Thesis (3MT)** competition when doctoral students take to the stage to explain their research in, you've guessed it, just three minutes! Audience members can vote for their favourite speaker while the judges' winner will go on to represent the university in the national 3MT competition hosted by Vitae.

Full details of the festival programme along with booking links, online displays and voting for the poster and photo competitions are on our blog: <http://bit.ly/UoBPGR17>

In this booklet, you'll find the abstracts of research students' work in progress presentations.

The festival has been organised by a staff and student committee and we've been working hard for several months to build this week-long programme. Our aim has been to create a fun, lively and inspiring festival that brings the research community together, promotes interdisciplinarity and showcases the diversity and excellence of postgraduate research at Brighton.

We hope you'll join us in this celebration!

With best wishes,

The Festival Committee

Staff members

Fiona Sutton
Lorraine Slater
Lynne McChesney
Dr Mark Erickson
Prof Darren Newbury
Dr Susan Sandeman

Student members

Helene Abiraad
Majed Al-Jefri
Myrsini Athinaiou
Merryn Haines-Gadd
Patricia Soares
Dora Souza Dias
Willem Stander
Adam Talbot
Omama Tariq
Jenny Venton
Heidi Von Kurthy
Helen Williamson

Eastbourne
Work in Progress
Presentations,
Tues 16 May

Session 1, Panel A, 10.00 - 11.00, Aldro G5		
10.00	Heidi Von Kurthy	Intra-related meanings within the practice of Embroidering
10.15	Jens Schneider	Gender transition from a doing perspective: meaningful activities of gender-variant people
10.30	Rebecca House	The experiences of bisexual men and women in sports clubs
10.45	Adam Talbot	Evictions in the shadows of the stadiums: Vila Autódromo, Social Movements and Rio 2016
Session 1, Panel B, 11.15 - 12.30, Aldro G5		
11.15	Judith Romhild Raviart	Writing a Cruise Blog: Blogging as a Qualitative Research Tool
11.30	Hanno Martens	The Tourism Destination Image Effects of Sport Events - A longitudinal Study of Germans visiting the Middle East
11.45	Felicia Munjaidi	Fifty Years of Politics, Policy, and Problems of Tourism Development in Zimbabwe Under different situations of fragility from 1965 to 2015
12.00	Mana Al Mashreef	Community Participation in Planning and Decision-making in Tourism Development in the Kingdom of Saudi Arabia (KSA)
12.15	Bashaer Alhay	The influence of computer mouse design on the posture, movement and muscle activity of the elbow and wrist joint
Session 2, Panel C, 10.00 - 11.00, Aldro G2		
10.00	Rebecca Relf	Heat Sensitivity and Alleviating Interventions for Female Breast Cancer Survivors
10.15	Kirsty Waldock	Optimising heat alleviating strategies for the elderly
10.30	Antonia Karanikolou	Omics biomarkers of blood doping and training
10.45	Lisa Schafer	Neuromuscular fatigue in High-Intensity Exercise
Session 2, Panel D, 11.15 - 12.15, Aldro G2		
11.15	Jay Beichman	How therapists make sense of pluralistic approaches to therapy: A qualitative interview study
11.30	Diana Ramsey	How do people with learning disabilities experience work?
11.45	Kitty Suddick	The acute stroke unit as transitional space: the lived experience of stroke survivors and healthcare practitioners
12.00	John Ling	Exploring resilience in families where a parent has had an acquired brain injury: a Q methodology study

Session 1: 10.00 – 12.30, Aldro G5

PANEL A

Chair: Hanno Martens

Heidi Von Kurthy

MPhil, School of Health Sciences

Intra-related meanings within the practice of Embroidering

I am an occupational therapist studying the phenomena of embroidering. Through engaging with an agential realist perspective I espouse the idea that phenomena are constitutive (the forming part) of reality. The primary ontological units are occupations as phenomena, which manifest as material discursive practices i.e. embroidery. Phenomena in the way that I have defined it does not refer merely to perception of the human mind – rather phenomena involves real physical, although not separate or fixed, entities or beings. Reality is not composed of things in or behind phenomena but things in phenomena. The world is a dynamic process of intra-activity and materialisation in the execution of unfixed causal structures with variable boundaries, properties, meanings and patterns of being. In this sense – the world is always re-working itself through the realisation of different agential possibilities. Moreover occupations are neither fixed nor given nor the mere end result of different processes. Occupations are practices that are produced and productive, generated and generative. In this sense research is not about finding the essence or property of things but understanding the differential patterns of mattering – diffraction patterns produced through complex agential intra-actions of multiple material-discursive practices of bodily production. I hope that my research will provide some insight into the possibilities offered through the therapeutic use of crafts such as embroidery. During my presentation I will give an overview of how I hope to develop my research within an agential realist onto-epistemological perspective.

Jens Schneider

MPhil, School of Health Sciences

Gender transition from a doing perspective: meaningful activities of gender-variant people

This study explores the lived experiences of gender-variant people regarding their gender transition process from a doing perspective. The study, which is set in the German context, investigates whether and how a doing perspective might offer new ways of looking at and thinking about the gender transition process. The doing perspective applied in this study contains all different forms of doing, including meaningful activities, and has a transactional relationship with the personal context of the individual. A broader perspective of gender diversity is used in order to take account of the individuality of people who express their gender identity outside the predominating binary gender system. Therefore, the umbrella term gender-variant people is applied. These people experience their gender identity and / or expression as divergent from their biological sex. Some of them use terms such as trans*, transgender, genderqueer, or gender non-binary to specify their gender identity.

This presentation is based on an in-depth literature review which explored various theoretical constructs in relation to gender, gender transition and doing. Research and theory inform us that gender is transacted through people's performance of (meaningful) activities which are themselves often socially influenced by our postmodern society. The study aims to find out what activities these gender-variant people chose in their gender transition process, why they chose these activities and how they performed these activities in order to live their lives.

Rebecca House

MPhil, School of Sport and Service Management

The experiences of bisexual men and women in sports clubs

The purpose of this presentation is to give an introduction of my research and receive feedback on the subject. While there has been some significant academic attention paid to the topic of homosexuality and sport, very little has focused on bisexuality. This subject, therefore, seems to be less researched and so requires examination in order to provide a fuller insight into the relationship between sport and sexualities. A qualitative research methodology will be used, specifically unstructured interviews, in order to gain in-depth understanding regarding the participants' experiences. The research will take a largely inductive approach but a theoretical framework/ frameworks will be applied after the results have been analysed. The sample will consist of bisexual men and women in Britain, of the age of eighteen or above, who have in the past or currently are participating in a sports club in Britain. The interviews have yet to be conducted, however, it is estimated that there will be between approximately twenty and twenty-five. My doctoral study has the potential to promote bisexuality visibility, contribute originality to the wider academic area of sexuality in sport and illuminate the presence of bisexual individuals in sport.

Adam Talbot

PhD, School of Sport and Service Management

Evictions in the shadows of the stadiums: Vila Autódromo, Social Movements and Rio 2016

Rio 2016 was hailed as a remarkable moment in Brazil's rise as one of the world's emerging economies. When the event arrived, however, it was plagued by accusations of corruption and human rights abuses. This presentation focuses in on evictions in one favela, Vila Autódromo, located directly next to the main Olympic park. Drawing on ethnographic fieldwork conducted in the year leading up to the Games, this presentation discusses how residents and activists promoted an alternative version of the favela to counter attempts at eviction, with limited success. This alternative vision emphasises community, culture and security, contrasting with mainstream perceptions of favelas as havens of violence and poverty. By emphasising these wider issues related to favelas and human rights, activism in Vila Autódromo came to represent a wider conflict between informal and formal communities in Rio de Janeiro.

PANEL B

Chair: Adam Talbot

Judith Romhild Raviart

MPhil, School of Sport and Service Management

Writing a Cruise Blog: Blogging as a Qualitative Research Tool

Blogs have been utilised in qualitative tourism research for quite some time. Methods range from content and narrative analysis, over participatory blog research, to using blogs to recruit participants for surveys. Furthermore, research blogs have been established to publish research findings or reflective notes on academic life. However, the extent to which blogging can be integrated into the qualitative tourism research process remains unclear.

Besides offering a straightforward way to publish text, pictures, video or audio files, blogs are more interactive than the average web page. In fact, blogs can be used to generate a community of interlocutors. The production of ideas takes place in a collaborative, participatory environment which blurs the boundaries between user and producer. It allows participants to reflect their point of view and to produce knowledge collaboratively. Yet, only few researchers incorporate this interactive function in the research process.

This presentation will outline how blogging may be used as part of the research process and highlights some of the practical, theoretical and methodological issues that arise from this. Some of the key ethical considerations of the method will also be discussed. These findings form the methodological foundation of a PhD, which seeks to understand sustainable consumers' attitudes towards social, economic, and environmental responsibility in their decision to take a cruise holiday.

Hanno Martens

MPhil, School of Sport and Service Management

The Tourism Destination Image Effects of Sport Events - A longitudinal Study of Germans visiting the Middle East

The presentation introduces a part-time PhD project that started in January 2016. The aim of the study is to explore how the tourism destination images of the Middle Eastern countries Bahrain, Oman, Qatar and the UAE amongst German tourists change through visitation of a sport event in those countries. The focus of this presentation is to introduce a critical evaluation on the role of sport events in destination marketing, specifically in a Middle East context.

Destination marketers put high hopes in the positive tourism destination image effects of sport events through tourist visits and international media coverage. However, researchers have identified that many host destinations do not manage and market sport events professionally. Challenges are developing or hosting a sport event fitting to the destination's portfolio, how to brand a sport event and the destination together, as well as leveraging of the positive effects. Furthermore, sport event research would profit from theoretical underpinnings and insights from other disciplines such as the concepts of leverage, image and branding from marketing and consumer psychology research.

Several countries in the Middle East, such as the UAE, Oman, Qatar and Bahrain are increasingly using internationally attractive sport events to increase their influx of tourists. In the presentation a typology of the intended roles of sport events in destination marketing is presented and applied to recent sport events in the Middle East.

Felicia Munjaidi

MPhil, School of Sport and Service Management

Fifty Years of Politics, Policy, and Problems of Tourism Development in Zimbabwe Under different situations of fragility from 1965 to 2015

A review of the literature indicates that there are many interpretations and misinterpretation about tourism development in Zimbabwe. This study critically examines and analyses different situations of fragility on tourism development in Zimbabwe- an industry that has probably experienced the most trying challenges in the colonial and post-colonial eras from 1965 to 2015 under war, sanctions, structural adjustment, and land reform programs. The main argument is that although the tourism industry faced a catalogue of hardships its survival demonstrates the resilience of a key service sector. The tourism industry has no doubt transformed tremendously, not just in ownership terms, but in the typology of product, market access and target. The extent to which that transformation has been successful and representative of a more permanent pattern remains open. Using archival research and semi structured interviews from an interpretative approach, a detailed case study of the Victoria Falls will account for the development of resilience based on the intervention and its ability to cope with challenges and bouncing back despite substantial adversity (Ruther, 1985). The concept of resilience in all its multi-dimensions would be useful in such an explanation. Holling (2003) state that resilience is a common characteristic of dynamic systems that persist over time and space regardless of difficult. The research findings show that tourism is important for the Zimbabwe economy and is one of the fastest growing industry in Sub Saharan Africa.

Mana Al Mashreef

MPhil, School of Sport and Service Management

Community Participation in Planning and Decision-making in Tourism Development in the Kingdom of Saudi Arabia (KSA)

The aim of the research is to explore the extent to which local communities participate in planning and decision-making in tourism development in the Najran region, KSA. This study has identified two fundamental research questions: How do local communities view tourism as a potential tool for social, cultural, environmental development in the Najran region? To what extent are local communities involved in decision-making process in tourism development in Najran?

A review of the literature reveals insight into local communities' involvement in planning and decision-making in tourism development. However, there are a lack of studies on this topic in Saudi Arabia, so in-depth research is required to understand the extent to which communities are involved in tourism development in Saudi Arabia. Qualitative methodologies will be used to answer the research questions. Although not fully decided, it is likely semi-structured interviews and focus groups will be used to collect

data from key stakeholders who are influenced by tourism development in the Najran region. In this research, it is recognised that positionality will be a key challenge to the researcher due to my employment in the Saudi Commission for Tourism and National Heritage (SCTNH) since its establishment in 2001 to date.

Bashaer Alhay

PhD, School of Health Sciences

The influence of computer mouse design on the posture, movement and muscle activity of the elbow and wrist joint

Aim:

- 1- The feasibility of an experimental set-up design intended to be used in a larger scale study.
- 2- The validity of the measurement tools FASTRAK and Electrogoniometer to identify the equipment to be used for a larger scale experiment.
- 3- The reliability of the range of motion (ROM) data of the elbow and wrist joint.
- 4- To determine a preliminary analysis about which computer mouse design has a significant effect on the posture of the elbow and wrist joints.

Methods: A validity study was done on an artificial rig designed to simulate elbow flexion/extension and supination/pronation through a range of known angles. One participant was used to test the experimental set-up during a hyperlink task. Fifteen participants took part in the reliability study and performed three trials with each computer mouse used and within two consecutive days.

Sample: Convenience sampling was used.

Results: It was found that the Electrogoniometer is a valid and a reliable measurement tool that can be used with future experimental work. Within-days reliability data provided more repeatable measurements for wrist flexion/extension, wrist radial/ulnar deviation and elbow flexion/extension. Evoluent mouse was found to have the least variations for the measurements taken for the wrist and elbow.

Conclusion: Only six studies were found on an experimental study design looking at mouse design and WRMSD. For future experimental work, participants will be given an extra period of time to become familiar with each mouse, to adopt a comfortable posture and build a technique in using each different mouse.

Session 2: 10.00 – 12.15, Aldro G2

PANEL C

Chair: Diana Ramsey

Rebecca Relf

MPhil, School of Sport and Service Management

Heat Sensitivity and Alleviating Interventions for Female Breast Cancer Survivors

Breast cancer is the most prevalent form of cancer in females worldwide, with one in eight individuals diagnosed with breast cancer in their lifetime. The survival rate has substantially increased with enhancements in technology and treatments now available. However, survivors are left with a multitude of negative side effects, with the most commonly reported being: persistent fatigue, reduced immune function, disturbed sleep, hot flashes and night sweats. All of these side effects contribute to a reduced exercise participation and quality of life. Hot flashes are extremely persistent among survivors, representing an excessive reflex response to changes in the temperature control circuit, triggered when core temperature exceeds the upper threshold of the thermoneutral zone. The mechanisms surrounding hot flashes are yet to be confirmed, although an evident symptom of thermoregulatory dysfunction and requires further investigation.

This PhD aims to identify whether female breast cancer survivors are more heat sensitive during exercise compared to healthy age-matched females and then how they might respond to a heat-alleviating intervention. Study 1 and 2 will aim to assess the validity and reliability of local sweat rate methods. Study 3 will be an exploratory case-study categorising hot flashes and the physiology associated with them and exercise in a 24-hour period. Study 4 and 5 will assess the acute physiological, psychological and inflammatory responses to exercise-heat stress of survivors compared to healthy age-matched controls. Finally, study 6 will evaluate different acute heat-alleviating interventions for reducing physiological and perceptual strain for the survivors when exposed to exercise-heat stress.

Kirsty Waldock

MPhil, School of Sport and Service Management

Optimising heat alleviating strategies for the elderly

The UK climate is changing, 2016 was the third consecutive warmest year since records began. The elderly are at an increased risk of suffering a major heat-related illness. The aim of this investigation was to develop an elderly specific guide for assessing heat illness risk in the UK. Eighteen participants (13 males and 5 females: age; 71 ± 4 years, mass; 78.1 ± 15.2 kg) were randomly assigned into three experimental groups; 15°C, 25°C or 35°C, 50% relative humidity. Participants completed a preliminary trial and three experimental trials within their selected environment. The data from the preliminary incremental cycling test was used to calculate individual exercise intensities equating to 2, 4 and 6 metabolic equivalents (METs) for the subsequent trials. In the main trials, participants completed 30 minutes of rest before 30 minutes of exercise. Physiological measurements were taken every 5 minutes and perceptual measurements every 10 minutes; heart rate, core temperature (T_c), skin temperature, rating of perceived exertion, thermal

sensation and thermal comfort (TC). Preliminary results demonstrate a significant increase ($P<0.05$) in T_c when exercise intensity is constant and environmental temperature increases from 15 - 35°C and 25 - 35°C. In spite increased thermal strain, there was no significant increase ($P>0.05$) in TC when completing exercise at 6 METs in 25°C compared to 35°C. Findings suggest that the elderly may have a decreased perceptual awareness of the environment which could heighten their risk of experiencing a heat-related illness.

Antonia Karanikolou

MPhil, School of Sport and Service Management

Omic biomarkers of blood doping and training

Despite being prohibited by World Anti-Doping Agency (WADA), blood manipulations such as blood transfusions are frequently adopted by athletes to enhance their sports performance. Direct detection of blood doping has only partially been successful due to the short detection window of the substances/methods, sample collection timing and the use of sophisticated masking strategies. In response, WADA introduced the Athlete Biological Passport (ABP) in 2009, which is a longitudinal and individual monitoring technique that tests chemical and physiological parameters in order to identify atypical variability of the response(s) in the athlete, highlighting a potential doping violation. Although the implementation of the ABP has been an encouraging step forward in the quest for clean/drug-free sport, this detection method remains imperfect. To reduce the risk of being detected by the ABP, athletes are now resorting to microdoses of blood doping to restrain abnormal fluctuations in the haematological parameters used as biomarkers of doping, thereby reducing the sensitivity of the ABP detection method. Recent studies from numerous laboratories have confirmed the potential of a transcriptomic microarray approach, which can assess distinct changes in gene expression after blood manipulations, to enhance the ABP. Future studies are needed that involve other state-of-the-art molecular methods, known generally as “omics” methods e.g. proteomic and metabolomic, in order to identify new and even more robust molecular signatures of blood doping, that can be used in isolation and/or in combination with the ABP to distinguish blood doping from normal confounders such as the effects of altitude exposure, gender or exercise.

Lisa Schafer

MPhil, School of Sport and Service Management

Neuromuscular fatigue in High-Intensity Exercise

Neuromuscular fatigue is widely accepted as a phenomenon affecting the ability to produce voluntary force. Evidence suggests that central and peripheral processes contributing to neuromuscular fatigue are dependent on exercise intensity and duration, at least partly due to intensity-specific energy demands and associated metabolic changes. Therefore, the aim of my core PhD studies are to investigate whether the loss of voluntary force and associated measures of peripheral fatigue during high intensity exercise are related to the use of an anaerobic capacity. Ten recreationally active male participants (age; 23 ± 4 years, mass; 77 ± 11 kg, $\dot{V}O_{2max}$; 52.2 ± 9.0 ml·kg⁻¹·min⁻¹) completed two high-intensity cycling bouts of 3- and 12-min duration to the limit of tolerance. Neuromuscular function was assessed before, immediately after, as well as 6, 15 and 30 min after test termination. Preliminary results indicate significant reductions in maximal voluntary contraction ($p<0.05$), evoked twitch forces ($p<0.001$) and doublet twitch forces at 10 Hz ($p<0.001$) and 100 Hz ($p<0.05$) immediately after test termination. Despite a rapid recovery of neuromuscular function within

the first 6 min, the ability to produce voluntary force may not recover completely within 30 min. A significant difference between exercise intensities could only be observed for doublet twitch forces at 10 Hz ($p < 0.05$). These initial findings provide a robust critical insight into the mechanism(s) underlying the neurophysiological limits of exercise tolerance and should offer practical information for the athletic population.

PANEL D

Chair: Heidi Von Kurthy

Jay Beichman

PhD, School of Applied Social Science

How therapists make sense of pluralistic approaches to therapy: A qualitative interview study

Using the method of thematic analysis (TA) I transcribed 12 interviews with 12 psychological therapists from different 'schools' (3 person-centred, 2 psychodynamic, 1 CBT, 1 person-centred / brief solution-focused therapy, 1 humanistic, 1 integrative, 1 humanistic-integrative, 1 transactional analysis, 1 pluralistic).

I am in the writing up stage of my research so this presentation will give a brief overview of: (1) the sociohistorical context in which pluralistic therapy was first articulated; (2) relevant literature which precedes this research; (3) the methodology and methods used; and (4) extracts, interpretations and discussion of the interview data. Throughout the presentation the importance of the understandings reached and how they might provide support and challenge for practice and policy are considered.

The themes I have identified from the interview data are: 'Debates About Pluralistic Therapy and Pluralism' (theme 4) which reflect conflicts both external to the profession and inside it that are focussed, for the most part, on issues concerned with the superiority/inferiority of different therapeutic approaches. I postulate that three major 'contentious issues' fuel these debates: 'Identity and Approach', 'Horses for Courses or One Size Fits All?: The Flexibility-Rigidity Continuum' and differences of opinion around the notion that 'It's the Relationship' (themes 1-3) and that there have been 'diplomatic attempts at resolution' - associated with aspects of pluralistic approaches - of these debates through 'The Practice of Metacommunication', toleration or not of different positions along 'The Uncertainty-Understanding Continuum', and 'Common Factors' (themes 5-7).

Diana Ramsey

MPhil, School of Health Sciences

How do people with learning disabilities experience work?

This research study aims to examine the experience of work for people with a learning disability including the impact of their learning disability on their work-life experience. Central to this research question is the desire to establish the voice of the individual with a learning disability about their experience of the phenomena of work, as this is a highly neglected area in previous studies.

This work in progress presentation will explore and examine themes, uncovered as part of the literature review related to the economic, political and health context; factors impacting work and the neglected voice of the experience of the person with a learning disability in employment.

Kitty Suddick

PhD, School of Health Sciences

The acute stroke unit as transitional space: the lived experience of stroke survivors and healthcare practitioners

This hermeneutic phenomenological study aimed to explore how the acute stroke unit experience, as the phenomenon of interest, was meaningfully lived from a human lifeworld perspective.

Eight participants: four stroke survivors and four healthcare practitioners: took part in semi-structured interviews on which detailed hermeneutic analysis was undertaken.

The stroke survivors experienced the ASU as a lived space in two differentiated forms. The ASU holding space, through the spatial practices of nurses, and others, including similar others (patients), was understood to provide them with protection and safe haven; holding them intimately but also at a distance, so that they could think, make sense, plan and work towards transition. The transitional space of the ASU was experienced by three of them in more disparate ways and represented how they transitioned their self, for protection, necessity, and for recovery.

The healthcare practitioners experienced the ASU as a space that they produced and appropriated for themselves and others. This was intertwined with their work as existential project; through their relationships with others, and their contribution to patients' transitional work; they were understood to experience authenticity and belonging. Amidst the day-to-day pressures on the unit, three of the health practitioners looked to navigate and survive the vulnerability they experienced in relation to their meaningful work.

Further synthesis of both horizontal perspectives elucidated three key areas of understanding: the spatiality of the lived experience of the acute stroke unit, suffering and thriving as a human being, and the intertwining of multiple selves in time and place.

John Ling

MRes, School of Health Sciences

Exploring resilience in families where a parent has had an acquired brain injury: a Q methodology study

Evidence is accumulating that some children whose parents have suffered an acquired brain injury (ABI) experience psychological distress including ambiguous loss, post-traumatic stress symptoms, anxiety and low mood. There is some limited evidence to suggest that this distress may become persistent and be related to later use of psychiatric services as an adult. Anecdotally, not all children's distress becomes

pathological, yet there is relatively little literature exploring how children adapt to the challenge of a parental ABI.

Children's experience of the adversity of parental ABI may be mediated by resilience. Resilience is viewed as an emergent property of the child's knowledge, skills and abilities; the relational milieu of the family and the socio-economic context including access to brain injury care and support services.

Families affected by significant brain injury will be recruited from branches of Headway, a charity for brain injury survivors.

A Q-methodological approach will be used to explore children's viewpoints of resilience building mechanisms. Participating children will be asked to sort a Q-Set of statements based upon the Resilience Framework (Hart et al 2007) and common themes from the literature around children's experience of parental brain injury.

Standardised measures of family functioning, brain injury recovery and symptoms will also be collected. It is expected that this study will contextualise children's viewpoints of resilience building mechanisms after parental ABI with patterns of their parent's functional recovery, brain injury problems and the family milieu.

Grand Parade
Work in Progress
Presentations,
Thurs 18 May

Session 1, 11.00 - 12.30, Room 202		
11.00	Merryn Haines-Gadd	Emotional Durability and Light: A journey from Products to Services
11.15	Peter Marsh	How models can translate the lived experience of Rheumatoid Arthritis into material and form
11.30	Shai Kassirer	Media Analysis of Hydro-Policies for Climate Resilience in Israel: Depoliticisation of Desalination Discourse
11.45	Colin Harding	Horace Nicholls: Artist, Journalist, Propagandist, Opportunist.
12.00	Tessa Lewin	Queer Visual Activism in contemporary South Africa
12.15	H Howitt	How We Fuck: Exploring the ways trans people navigate bodies in sex

Session 1: 11.00 – 12.30, Grand Parade, 202

Chair: Dora Souza Dias

Merryn Haines-Gadd

MPhil, School of Architecture and Design

Emotional Durability and Light: A journey from Products to Services

The lighting industry is shifting; a bulb, once a consumable, is now a long-life product. This has prompted lighting producers to consider alternative approaches to production concerned with life cycle thinking and emotion driven design practice; implored to not only enrich and enhance user experience but also provide more sustainable solutions as well. Emotionally Durable Design offers an opportunity in which to investigate this thinking in New Product Development (NPD); an approach to design, it examines the unspoken emotional experiences that occur between products and consumers to foster more durable, long lasting relationships to reduce consumption.

This paper outlines the methods implemented in the first 12-18 months of on-going practice based design doctoral research partnership between Philips Lighting and University of Brighton exploring the integration of Emotional Durability and Service Innovation into NPD.

This resulted in the development of an 'Emotionally Durable Design Framework' consisting of 9 themes: Narratives, Integrity, Identity, Evolve, Materiality, Relationships, Imagination, Conversations, and Consciousness; with a further 39 strategies that support the creation or evaluation of an Emotionally Durable product.

The project is currently exploring how the framework relates with consumer journey mapping and the 5-archetypal business models outlined by Bakker, et al. (2014): Classic long life, Hybrid Model, Gap Exploiter, Access and Performance. The study hopes to demonstrate and validate how Emotional Durable principles can benefit the design of lighting and other electronic products and which Product Service System models might be the most applicable for these concepts.

Peter Marsh

PhD, School of Architecture and Design

How models can translate the lived experience of Rheumatoid Arthritis into material and form

Using examples from research currently being undertaken in how models can translate the lived experience of Rheumatoid Arthritis, the importance of the iconic superstructure will be analysed when used as a means of translating and understanding text into three dimensions.

Gadamer described text as meaning which had 'undergone a kind of self-alienation through being written down' (2004, p.393) and it was the transformation back into meaning that he considered to be hermeneutic. The approach used in the current research is to first gain this understanding through meaning found within

the text, transcribed from interviews with people suffering from Rheumatoid Arthritis. Then, still involved in the dialectic movement between the text, participant and the researcher, to seek an alternative means of interpretation, models that convey sensory experience understood through a hermeneutic phenomenological process rather than an illustration of a subjective point of view.

A description of the mapping process from linguistic to concrete to abstract, transcription-analysis-model, will show how the translation from text to model applies theories drawn from cognitive science and linguistics. Avoiding direct anthropomorphic references, symbolic meaning is gained using form, texture and the cultural inferences of materials with the lines, balance, and composition referencing the prosody and intonation of the original, alongside the metaphorical expressions drawn from the text enriching and reinforcing the overarching thematic motivation, the 'tendency' (Adorno, 1957) of the piece.

Shai Kassirer

MPhil, School of Media

Media Analysis of Hydro-Policies for Climate Resilience in Israel: Depoliticisation of Desalination Discourse

According to NASA's research on climate change, during 1998-2012 the Eastern Mediterranean region suffered the longest and driest drought of the past 900 years (Cook et.al 2016). This fifteen years-long drought has increased existing regional tensions caused by already scarce water resources. In several countries, seawater desalination has become the primary response to the shortage. Today, over 40% of water consumption in Israel comes from desalination plants and governmental plans are aiming at 70% in the next few years. My PhD project explores the Israeli media coverage of the drought and the mediated public debate on how to prevent water stress, which ended with the implementation of desalination.

This presentation will focus on the theoretical framework of my research: using climate resilience perspective in communication research of environmental discourse. Originating from ecology in the early 1970s, the Resilience approach is a way of conceptualising and analysing systems and communities' reaction to external shocks and disturbances. Literally meaning 'springing-back', resilience is referred to as the ability to cope, recover and reduce vulnerability. When researching social-environmental systems, examination of the 'sources' of resilience and the nature of reaction to a disturbance is used to question dominant views, behaviours and policies connected to climate adaptation. Put simply, resilience asks: how does a system/community cope with environmental stress and how does this stress cause change? This presentation suggests that we then need to ask: how is this process mediated? Or, what is the media's role in shaping debates and discourses about resilience and adaptation?

Colin Harding

MPhil, School of Humanities

Horace Nicholls: Artist, Journalist, Propagandist, Opportunist

In 1917, Horace Nicholls was appointed Official Photographer to the Ministry of Information, documenting the impact of total war. He also recorded the personal impact of the war on him and his family. Every year, Nicholls compiled a photographic album for his wife as a Christmas gift. Together, these albums form a

record of one family's life over three decades. However, what is unique about Nicholls' albums is what they reveal about the relationship between his professional and personal life. This presentation will examine the overlap between Nicholls' public and private worlds as evidenced in his official photographs of sites of national mourning compared with his personal photographs commemorating his son, George, who died in the Battle of Arras in April 1917.

After the war, Nicholls photographed the Tomb of the Unknown Warrior and the unveiling of the Cenotaph. Alongside images of these symbols of national mourning, the Nicholls family albums contain images of George's grave, photographed by the Graves Registration Commission and during the 1920s by family members on visits to Beaurains Road cemetery in France. As Chief Photographer at the recently-established Imperial War Museum, one of Nicholls' first commissions was to photograph London's war memorials. One of his photographs shows Ealing War Memorial. Amongst the names engraved on the memorial is that of Nicholls' son - a poignant and vivid illustration of the link between the private and the public worlds recorded by Nicholls' camera.

Tessa Lewin

MPhil, School of Media

Queer love in South Africa, Over the Rainbow; 'there's a place where love ends and you need the money'

The notion of queer love in post-apartheid South Africa is very closely bound up in the myth of the rainbow nation (Munro, 2012). Tucker (2010) documents how queer activists explicitly adopted a strategy of linking racial discrimination with discrimination based on sexual orientation, to secure a series of legal and constitutional gains. With what has been described as the death of rainbowism, what now happens to queer love? I explore this question through the work of two queer South African artists: Athi-Patra Ruga and Dean Hutton.

This presentation draws on my doctoral research, which looks at Queer Visual Activism in the contemporary South African context. South Africa has a rich history of what might be called visual activism, from the artists and photographers that protested apartheid (see Hayes, 2011; Williamson, 1989), to those protesting Mbeki's denialist stance on HIV/AIDS, and specifically the lack of State provision of anti-retroviral drugs to HIV positive people (see Thomas, 2014; Allen, 2009). South Africa is also home to Zanele Muholi, the self-proclaimed 'black queer visual activist' who has been documenting and exhibiting her portraits of queer South Africans, to significant international acclaim (van der Vlies, 2013) since her first solo exhibition in 2004 (Muholi, 2014). Beyond Muholi's work, there are numerous other queer artists who are contributing to a vibrant contemporary culture-space.

H Howitt

MPhil, School of Applied Social Science

How We Fuck: Exploring the ways trans people navigate bodies in sex

According to the dominant discourse, to be trans is to experience a misalignment between the sexed physical attributes of the body, and one's internal sense of gender. Several axioms constitute clinical

diagnostic criteria, and are presumed present (and essential) in all trans people, resulting in a singular, narrow and static understanding of how to 'do' trans. These axioms include feeling 'trapped in the wrong body'; a strong desire to be the 'opposite' sex; and, crucially, a persistent discomfort of natal sexed attributes – specifically the genitals. Barely changed since their inception, these axioms constitute what trans is, and whilst some trans folk do experience their gender in this way, this framework eschews the stories of many.

Implicit in the medico-social understanding of trans is the troublesome relationship we, as trans people, have with sex. Not biological sex. Sex as in fucking; as in doin' it. This paper looks at how this relationship became reified over fifty years of medical discourse and explores the cultural shifts that challenge it. Examples which foreground and affirm diverse trans sexualities are found in small pockets of scholarship, alongside an ever-growing resource of zines, feminist pornography, and even the odd TV show. In this paper I question: if constructing our trans narratives no longer includes mandatory rejection of our bodies, then in what ways might we experience sex and sexuality? This forms the basis of my PhD research project, in which I seek to explore the range of tools and practices trans people use to mediate sexual embodiment within a creative, practice-based methodology.

Moulsecoomb
Work in Progress
Presentations,
Thurs 18 May

Session 1, Panel A, 14.30 - 15.45, Watts 310		
14.30	Stuart Hill	Why do businesses adopt ethical assurance in the context of statutory compliance? Fair pay, the voluntary living wage and small employers in the city of Brighton and Hove
14.45	Anita Nusselt	From cross-industry research to disruptive user innovation
15.00	Jo Wilding	The Business of Asylum Justice
15.15	Elona Hoover	Nurturing collective ethical politics: re-imagining practices of commoning through human-non-human relations
15.30	Tania Wiseman	21st century later life
Session 1, Panel B, 16.00 - 17.15, Watts 310		
16.00	Zhandos Tauanov	Synthesis of fly ash-derived synthetic nanocomposite zeolites and utilization for the removal of Hg from water
16.15	Flavia Bonalumi	Modified p(HEMA) cryogels as potential cell carriers for liver tissue engineering
16.30	Megi Kamenica	In situ metal ion detection
16.45	Gigliola Brintazzoli	Technology, care and a sense of home: Understanding older people's domestication of Telecare
17.00	Ayad Al-Thuwaynee	Combustion Synthesis of Ferric Oxide (Fe ₂ O ₃) Nanoparticles
Session 2, Panel C, 14.30 - 16.00, Mithras G30		
14.30	Fatimah Algarni	Investigating Behaviours and Attitudes towards use of Social Media as a Learning Technology among Higher Education Students in Saudi Arabia
14.45	Alanoud Alsalem	Information needs and information seeking behaviour of Saudi students in UK
15.00	Duaa Alkubaisy	A Framework Managing Conflicts between Security and Privacy Requirements
15.15	Myrsini Athinaiou	Cyber Security Risk Management for Health-based Critical Infrastructures
15.30	Majed Al-Jefri	Using Machine Learning for Automatic Identification of Evidence-Based Health Information on the Web
15.45	F.Sharmila Satthar	Exploiting Inheritance-Based Lexicon for Sentiment Analysis
Session 2, Panel D, 16.15 - 17.30, Mithras G30		
16.15	Sandra Young	Characterising trophic interactions from the linguistic evidence base in the biodiversity literature
16.30	Almas Baimagambetov	Automated Visualization of Grouped Networks
16.45	Bahar Khayamian Esfahani	Skin Cancer Prevention In Young Males; Fostering Persuasion Towards Sun Protection Behaviour Using A Gender-Aware HCD Approach
17.00	Jenny Venton	A poroelastic model of spinal cord cavities
17.15	Madeleine Conaghan	Reducing the Drivers Cognitive burden

Session 1: 14.30 – 17.15, Watts 310

PANEL A

Chair: Azhar Gawarir

Stuart Hill

PhD, Brighton Business School

Why do businesses adopt ethical assurance in the context of statutory compliance? Fair pay, the voluntary living wage and small employers in the city of Brighton and Hove

Driven by a huge rise in pay inequality and the persistence of low pay, the last four decades have seen a major growth in income inequality in the United Kingdom – creating a divide harmful to the individual, society and the environment. Despite the statutory interventions of the National Minimum Wage and the recent National Living Wage which prescribe minimum rates of pay across the country, some employers have adopted voluntary ethical assurance approaches to pay. One such approach, the Living Wage, sees employers commit to a minimum rate of pay which endeavours to reflect the actual cost of living – to date, a rate higher than those of both the National Minimum Wage and the National Living Wage.

This presentation provides an update of this doctoral student's research which examines why businesses adopt ethical assurance in the context of statutory compliance. The research focuses on the Brighton and Hove Living Wage as a geographically bounded campaign which has been running for a substantial period of time, has a significant number of employers signed-up and has clear leadership through the Brighton and Hove Chamber of Commerce. Accounting for ninety-seven percent of private businesses and employing half of employees in the region, small organisations have been chosen for this research because a disproportionately high number of these have signed-up to the local Living Wage despite research showing that it is smaller-sized organisations that typically experience greatest difficulty when adopting a higher minimum rate of pay for their employees.

Anita Nusselt

PhD, Brighton Business School

From cross-industry research to disruptive user innovation

Organisations are required to monitor global technological developments and to inquire internal strategies on the basis of ever-increasing and accelerating technological changes. Therefore, the analysis of cross-industry trends is taking an increasingly position in order to implement disruptive and innovative technologies, even in front of its competitors. For this reason, the question arises as to the role of a technology management department (TMA) in order to provide innovation-boosting impulses that secure innovation or technology leadership.

The aim of this doctoral research is to investigate scientific phenomena in a TMA by international firms and to propose organisational recommendations. Among other things, the research question is to be answered to what extent absorptive capacity is applied by cross-industry trends. The comparisons of the sectors such

as automotive, for example, are intended to demonstrate the synergetic influence among each other and provide the basis for industrial cooperation. The thesis will complement the existing organisational theory and bridge the gap resulting from the study of the literature on the research fields of disruption, innovation, technology management and organisational learning.

The research strategy of the triangulation approach from the field of empirical social research was chosen to represent epistemological and ontological paradigms of interpretivism. During a one-year participating observation in a TMD of an automobile group, processes were investigated in-depth. Through the method of qualitative field research, 23 experts from several industrial sectors have been interviewed. The evaluation of the data using NVivo allows to discover and evaluate connections and new insights.

Jo Wilding

PhD, Brighton Business School

The Business of Asylum Justice

People seeking asylum in the UK face a hostile and cynical procedure. High quality legal representation may be crucial to their chances of obtaining refugee status. Yet legal aid cuts and other changes appear to have reduced access to such representation. Need, demand and supply are little understood in the context of publicly funded asylum legal services. Likewise there is limited understanding of how representatives balance quality with financial viability. This presentation features a case study of one not-for-profit organisation providing legal aid asylum representation. It concludes that quality and financial viability are maintained through careful recruitment of practitioners, significant cross-subsidy by charitable funding, and internal subsidy in the form of practitioners carrying out unpaid work. Demand far exceeds capacity so the organisation has chosen to prioritise the most vulnerable clients' cases. These require the most work and take the longest to complete (and be paid for) but also offer the possibility of a higher rate of pay. This case study suggests that "demand" needs to be considered in two parts: Potential-Client demand (the number of people seeking the organisation's services) and In-Case demand (the demand for services on a case which has been opened). It provides a valuable illustration of the filtering process from need to supply, via the two stages of demand. Policy on legal aid has been heavily influenced by theories of supplier-induced demand and rational economic actors. This research suggests that those theories are flawed in relation to asylum legal aid.

Elona Hoover

MPhil, School of Environment and Technology

Nurturing collective ethical politics: re-imagining practices of commoning through human-non-human relations

In the context of the dramatic impacts of our technological, economic and productive systems on both humans and non-humans across the planet, there has been a renewed emphasis on practices of collective organisation and mobilisation, from physical and online cooperatives, to 'occupy' movements, community gardens and collective space-making initiatives. Many initiatives within this renewed enthusiasm for collective politics and practice have adopted discourses of the 'commons'.

This project responds to the urgent need for critical examinations of collective practices and politics within increasingly popular commoning initiatives in urban spaces. Although these initiatives have been adopted as key sites for resisting privatization and addressing social and environmental concerns, assumptions about horizontality in decision-making structures, inclusivity and openness are often not translated into practice, and both scholarship and practice tend to focus on the individual, human, subject as the main site of political and ethical agency.

My research will address two gaps in current research by researching collective subjectivity within 'actually existing commons' through collective practices, considering the potential role of non-humans in such practices. Second, it will critically examine the often overlooked normative dimension of commoning, which presents it has having an inherently 'ethical' logic (e.g. versus capitalist logic). In doing so, I will think 'with' writing and scholarship in the (overlapping) areas of affect theory, posthumanism and material feminism, 'more-than-human' studies, and postcolonial and indigenous scholarship. My methodology will be ethnographic and experimental, collaborating with two commoning initiatives to create, practice and reflect on new forms of 'being in common'.

Tania Wiseman

PhD, School of Environment and Technology

21st century later life

New ageing populations are emerging in the UK, people are surviving into later life in greater numbers than ever before and many of those people are healthy (ONS 2014), which is a new phenomenon. This research considers theory and research from subjects that often consider later life to be problematic, but reads them from a more optimistic perspective. Leisure research and theory, gerontology, sociology, public health, epidemiology, and UK office for National Statistics reports all contribute to creating a new perspective on later life.

The stories about leisure in late life presented in this research were constructed through immersion in the contributions of individual Mass Observation Archive correspondents writing about everyday life from 2000-2016. Current and remembered stories about everyday life are woven together using direct quotes to create stories that illustrate everyday leisure in 21st century late life in the UK. Creative non-fiction is an important narrative form (Gutkind 2012) which is used in leisure studies research (Humberstone 2011, Smith 2013), and aims to present qualitative findings in an engaging and emotive way (Caulley 2008).

Finding a comfortable lifestyle is an art, and taking the lead from those that have gone before is not possible for this 'new' cohort. So looking to the side, at peers to find out about later lives in the 21st century is one way of imagining this new phase of life. With varied stories of later life for inspiration we can begin to imagine our own later life stories.

PANEL B

Chair: Myrsini Athinaïou

Zhandos Tauanov

PhD, School of Pharmacy and Biomolecular Science

Synthesis of fly ash-derived synthetic nanocomposite zeolites and utilization for the removal of Hg from water

Coal fly ash (CFA) derived synthetic zeolites have become popular with recent advances and its ever-expanding range of applications, particularly as an adsorbent for water and gas purification and as a binder/additive in the construction industry and agriculture [1-4]. Among these applications, perpetual interest has been in utilization of CFA derived synthetic zeolites for removal of heavy metals from wastewater [5-6]. We herein focus on utilization of locally available CFA for efficient adsorption of mercury from waste water.

To this end, we optimize the experimental condition to produce synthetic zeolites from Kazakhstan's CFAs with conversion into zeolite at 65-80%, which has remarkably high magnetite content. In particular, the effect of synthesis reaction temperature, reaction time, and loading of adsorbent were systematically investigated and optimized. All produced synthetic zeolites and the respective CFAs were characterized using XRD, XRF, TGA, PSA, FTIR, TEM, and porosimetric instruments to obtain microstructural, mineralogical, and morphological data. Further, the synthesized zeolites were studied for their adsorption properties for removal of mercury. A comparison of adsorption capacity and its relationship to physical and chemical properties were analyzed and interpreted.

Flavia Bonalumi

MPhil, School of Pharmacy and Biomolecular Science

Modified p(HEMA) cryogels as potential cell carriers for liver tissue engineering

Background: Macroporous polymers synthesised by cryogelation have properties which make them suitable for liver tissue engineering. We have previously shown that antibody bound cryogels may be used to remove biotoxins related to life threatening anthrax infection. It may also be possible to manipulate the properties of these materials for bioartificial liver.

Aim: To investigate the effect of changes in cross-linker, freezing temperature and short- peptide RGD covalent binding on the mechanical and cell supporting properties of p(HEMA) cryogels.

Methods: Cryogels were synthesized using variable gelation temperature (-12C,-20C); cross-linker (PEGDA and N,N'-MBA); and RGD-PEGDA incorporation. Porosity, elastic modulus and swelling were examined by SEM, textural analysis and equilibrium drying. HepG2 cell studies were carried out using MTT, fluorescent labelling and confocal microscopy.

Results: Cryogels were synthesised with an open porosity of up to 100um and variable porous and

mechanical structure depending on cross-linker and cryogelation temperature. Metabolising HepG2 spheroid formation was evident after 72h particularly in the RGD bound cryogels.

Conclusion: Modified p(HEMA) cryogels made using variable synthesis parameters have physicochemical properties promoting HepG2 adhesion and growth. Further studies are required to further optimise parameters and model functional cell growth over time.

Megi Kamenica

MPhil, School of Pharmacy and Biomolecular Science

In situ metal ion detection

The interest of lithium for decades has been enormously accumulating because of its uses in medicinal and technology applications. Much information exists on the uses of lithium, however scientists are lacking the determination methods for such a significant element. Pillar[n]arenes will be used as chemical sensors with a particular focus on electrochemical method. The molecule which acts as the recognition point for the analyte can either be incorporated in a solid matrix or attached to a gold surface. It can also be used directly in aqueous samples. This project will focus on creating Li⁺-selective ionophores for an ion-selective electrode opposed to an optically-based method which is not selective enough for the response of metal cations. To function in a biological environment the electrode will have to resist biofouling – the build-up of biomolecules such as proteins – on the active surface. This will be achieved by incorporating a filter into the electrode that only allows hydrated ions through. Computer modelling will be used to design derivatives that are predicted to have greater selectivity for Li⁺. This prevents the need for a second generation of electrochemical sensors. The larger pillar[6]arene derivatives will be tested for the first time to determine responses to transition metal cations found in marine environments. The increasing presence of Li⁺ in seawater is becoming more relevant globally, therefore while the synthesis of pillar[6]arene derivatives is being developed the existing Li⁺ sensor will be redesigned to be robust enough for marine environments.

Gigliola Brintazzoli

PhD, School of Applied Social Science

Technology, care and a sense of home: Understanding older people's domestication of Telecare

Ageing in Place and Telecare solutions are being proposed as solutions to the ageing population and the increased demands for care as people live longer, often with chronic health conditions. This quasi-ethnographic study, which involved undertaking semi-structured interviews, opportunistic conversations and observations with 16 older Telecare users over a period of six months, has sought to understand the process by which older people came to acquire and use Telecare and if and how their experiences of using Telecare had changed the experience of, and meanings associated with, 'home' and 'care', in particular. The main findings of the domestication theory showed that, while sharing similar reasons for registering for Telecare, participants differed regarding the specific Telecare devices used. Telecare was perceived by participants as 'human'; however, only a few older adults revealed that they felt at ease discussing Telecare with others. These findings suggest an incomplete 'conversion' to Telecare, possibly because of feelings of stigma, ambivalence and resistance/acceptance embedded in Telecare. 'Home', which ingrained meanings

of attachment to the dwelling in itself and to significant cherished objects, which symbolised memories of the past and 'care', delivered at home' were both transformed by the introduction of Telecare. This new care technology entered the households and redefined the meaning of 'home' as a site of care as well as modifying the boundaries between private and public spaces. It also had practical implications for policy makers and practitioners, highlighting how older users negotiate the adoption of new care technologies.

Ayad Al-Thuwaynee

MPhil, School of Computing, Engineering and Mathematics

Combustion Synthesis of Ferric Oxide (Fe₂O₃) Nanoparticles

Metal oxides have been studied and gain considerable attention by many materials scientists due to their magnetic, electrical, optical, catalytic and mechanical properties these properties make the metal oxides useful in technological applications. Among them iron oxide nanoparticles have been used in diverse applications, including as catalysts, optical magnetic recording, gas sensors, electronic device, magnetic resonance imaging, hyper thermic malignant cell therapy, and targeted drug delivery. Combustion synthesis is the simplest and most economic method for nanoparticle production. Most importantly combustion synthesis has proven to be an easily scalable process that can achieve high product yields and high, continuous production rates. Diffusion flames are most commonly deployed by the scientific community for producing nanoparticles from flames. However, premixed flame is promising one step process that provide better control on flame configuration and its characteristics, enabling the studies to decouple and study the above research challenges associated with flame. There are number of challenges associated with the combustion synthesis of nanoparticles to achieve good control of particle size, size distribution, phase and composition. In the present work, iron oxide nanoparticles will be synthesised in a low-pressure flame reactor based on the gas phase.

This research work to undertaken to understand and establish the effects of precursor concentration, temperature, and residence time in premixed flames on iron-oxide to achieve desired end particle morphology, phase and composition and properties. Also, to compare the diffusion flames and premixed flame nanoparticle synthesis methodologies in order to establish the efficacy of the two methods in achieving controlled particle synthesis with defined magnetic properties. The prepared sample will characterized by x-ray diffraction (XRD), STEM.

Session 2: 14.30 – 17.30, Mithras G30

PANEL C

Chair: Duaa Alkubaisy

Fatimah Algarni

MPhil, School of Computing, Engineering and Mathematics

Investigating Behaviours and Attitudes towards use of Social Media as a Learning Technology among Higher Education Students in Saudi Arabia

Since their introduction a few years ago, social media sites and apps have proliferated the mainstream media and become an integral part of the lives of people across the world, drawing them to the allure of social connectivity and digital information-sharing. Researchers argue that the lives of millennials today are dependent on technology and social media to the extent that their social and cultural practices might be completely different should their digital access be revoked, and that learning today is “an intensely social activity”. This has led to the development of newer learning theories like connectivism to explain the learning styles of neomillennial students in the digital era. This creates interesting opportunities for educational institutions where they can reconsider, reimagine and redesign their pedagogies to encourage more active learning. Yet, educational systems continue to struggle to adapt to the connectivist model and social media-based learning, partly because they have not caught on to the possibilities offered by these and partly due to lack of research, particularly on conservative countries like Saudi Arabia. This research aims to fill some gaps in this area by investigating the current and potential uses, and implications of integrating social media into higher education in Saudi Arabia. It uses a sequential explanatory mixed-mode design focussing on students, teachers and administrators belonging to three key Universities in Saudi Arabia to achieve this. In doing so, it expects to contribute to the literature in terms of institutional, instructional and student usage of social media as a learning technology and lay the groundwork for policy development among higher educational institutions in Saudi Arabia.

Alanoud Alsalem

MPhil, School of Computing, Engineering and Mathematics

Information needs and information seeking behaviour of Saudi students in UK

Studies show that international students bring a range of benefits to the host country, both financial and non-financial. But these benefits can only be realized completely if the students are able to leverage the advantages offered by the host country’s educational system to enhance their own knowledge and abilities. To this end, there has been extensive research on understanding the information seeking behaviour and attitudes of international students so that Universities can cater to their information needs efficiently. However, one area of research that continues to lag behind is the study of information seeking behaviour of students from countries like Saudi Arabia. Due to the closed and conservative nature of the society, researchers often rely on theoretical underpinnings and extrapolations to predict the behaviour of students, particularly female students, from these countries. As a result, the findings are generally restricted and present a myopic view of the situation. This research aims to fill this gap to an extent by investigating the

information seeking behaviour of Saudi Arabian students in the UK in terms of their information seeking strategies, influencing factors, sense-making and barriers. It also aims to specifically evaluate the hitherto under-explored role of cultural and pedagogic traditions in influencing the information seeking behaviour of Saudi Arabian students in the UK. The study utilises a qualitative methodology consisting of real-time observations of students and follow-up interviews. It is expected that the findings would help to inform educational policy debate regarding campaigns and measures aimed at the Saudi Arabian student community, and help decision makers design better systems and policies aimed at students from the country.

Duaa Alkubaisy

MPhil, School of Computing, Engineering and Mathematics

A Framework Managing Conflicts between Security and Privacy Requirements

In order to develop efficient and effective framework for managing any conflict between security and privacy Non-Functional requirements (NFRs) and to reduce risk impact in software system, the goals set by the stakeholders need to be ascertained, and then the modeling language, tools, implementation and validation procedures need to be altered accordingly. Overall, this research is aimed for constructing of a framework for identifying and analyzing discrepancies between security and privacy (NFRs) in the context of system development and design. To protect sensitive assets and confidential data, organizations perform security risk management. There is a variety of approaches that support risk management in such context. Most focus on two dimensions: the understanding of security risks (risk management dimension) and the analysis of security countermeasures/solutions (security dimension). However, increasingly organizations need to ensure that their software systems and the way they store and share data is compliant with privacy laws and regulations. This creates the need to consider a third point of view (the privacy dimension) since from a requirements engineering perspective, conflicts among NFRs especially in security and privacy domains are inevitable.

Myrsini Athinaiou

MPhil, School of Computing, Engineering and Mathematics

Cyber Security Risk Management for Health-based Critical Infrastructures

An adequate security recovery systems design is central to the cyber-physical security of health critical infrastructures. Evidence suggests that critical infrastructures have interconnections, forming systems that generate behaviours that allow the propagation of attacks and have detrimental effects on the recovery process in terms of security. These factors may limit the cyber-physical security capabilities for the protection of health critical infrastructures. Hence, this research aims to develop a methodology to increase the capability of secure recovery of cyber-physical systems in health-based critical infrastructures. The in development methodology consists of a modelling language that is grounded on a domain specific ontology. It is expected that the final output of this research will be either a systems risk management theory or a series of work-intensive steps to be executed in order the recovery capability for security to be increased at a cyber-physical level in health-based critical infrastructures. Thus, supporting the health mission attainment through time-efficient secure risk management of cyber-physical assets.

Majed Al-Jefri

MPhil, School of Computing, Engineering and Mathematics

Using Machine Learning for Automatic Identification of Evidence-Based Health Information on the Web

Automatic assessment of the quality of online health information is a need especially with the massive growth of online content. In this paper, I present an approach to assessing the quality of health webpages based on their content rather than on purely technical features, by applying machine learning techniques to the automatic identification of evidence-based health information. Several machine learning approaches were applied to learn classifiers using different combinations of features. Three datasets were used in this study for three different diseases, namely shingles, flu and migraine. The results obtained using the classifiers were promising in terms of precision and recall especially with diseases with few different pathogenic mechanisms.

F. Sharmila Sathar

PhD, School of Computing, Engineering and Mathematics

Exploiting Inheritance-Based Lexicon for Sentiment Analysis

Sentiment analysis is the computational study of people's opinions, appraisals, emotion toward entities, events and their attributes as expressed in the text. This is important when a company or service provider wants to tailor their product to user needs. There are different techniques have been used for sentiment analysis approaches. We aimed to make a use of both linguistic context features used in lexicon based approaches and corpus-based learning from examples and developmental methodology used in machine learning approaches for Sentiment Analysis. In order to do that, we exploited inheritance-based lexicons to model a sentiment analysis system. Moreover, our approach used lexical items not just in isolation, but in context, which allowed us to take into account more complex linguistic constructions. We then used a corpus-based machine-learning methodology to refine this model with examples derived from corpus data. We did this by using a non-monotonic inheritance-based architecture to represent both the lexical algorithmic component and the example-based refinements. This presentation aims to present a modelling of sentiment analysis using inheritance-based lexicon.

PANEL D

Chair: Majed Al-Jefri

Sandra Young

MPhil, School of Computing, Engineering and Mathematics

Characterising trophic interactions from the linguistic evidence base in the biodiversity literature

The biodiversity literature is notoriously heterogeneous and extensive, complicating its analysis on a large scale. This is an issue considering the importance of understanding ecosystems and biodiversity trends on a worldwide scale for climate, habitat and species monitoring and modelling purposes. There is already much research as regards name extraction and disambiguation in the field of biodiversity, however the automatic extraction of semantic relationships between species, such as trophic interactions ('what eats what'), is a largely unexplored area. In computational linguistics a corpus analysis tool called the Sketch Engine has been developed with a feature (Word Sketches) which produces a one page statistical overview of a word's grammatical and relational behaviour in a simple and easy to digest way. The research here aims to adapt the Word Sketch tool to identify and group references to species and the trophic interactions between them. This research intends to harness the power of Sketch Engine to give a high-level view of the behaviour of words, while integrating some of the functionalities of name and relationship extraction and disambiguation. This means that corpus analysis, which can identify syntactic, grammatical and terminological features of taxa names and trophic interaction indicators, will be used in combination with current taxonomic tools/databases to annotate the literature in order to develop an ontology or other forms of knowledge representation. This will help biodiversity experts to identify previously unknown/undiscovered relationships and patterns between different lineages of organisms, and provide an 'evidence-based' approach to biodiversity discourse based on the historical literature.

Almas Baimagambetov

MPhil, School of Computing, Engineering and Mathematics

Automated Visualization of Grouped Networks

Graphs (or 'network diagrams') are widely used to visualize interconnecting data. Application areas include crime control, bioinformatics, social network analysis and classification systems.

The term 'grouped network data' refers to the data items in networks, where each item may also belong to groups. This type of data can be visualized by using a combination of closed curves (an Euler diagram) and graphs (items connected by lines). Visualizing the groupings using closed curves can be a highly effective technique due to the human brain processing visual information significantly quicker than textual information. Furthermore, it is the combination of graphs and closed curves that allows data analysts to identify patterns and unveil new information, which cannot be expressed with either closed curves or graphs on their own.

As the amount of data increases, manual analysis and subsequent drawing of closed curves and graphs quickly become more difficult. Automated layout tools can be of great benefit to data analysts to support

them with these tasks when they wish to visualize grouped network data. However, visual tools for interrogating such data are seriously lacking, while existing attempts to automatically lay out closed curves and graphs in combination yield suboptimal results. Hence, the overall aim of the project is to significantly improve the analysis of grouped network data through automated visualization.

Bahar Khayamian Esfahani

PhD, School of Computing, Engineering and Mathematics

Skin Cancer Prevention In Young Males; Fostering Persuasion Towards Sun Protection Behaviour Using A Gender-Aware HCD Approach

The purpose of this research is to increase sun protection behaviour in young males aged 18 to 24. In addition, the research aims to understand how sun protection behaviour is shaped and influenced, to develop possible insights and design interventions that change young male's behaviour in this particular health problem. In this research, the transformation of sun protection behaviour occurs as a result of the strategic implication of adopting gender-aware human-centred design (HCD) approach to develop design interventions based on addressing young male's needs. Initially, HCD provides guidance to explore the elements that fulfil the needs of young males through understanding the underlying meanings of young males' attitude, behaviour, motivations and experiences on the beach where the behaviour occur.

For this purpose, the methodological approach taken in this research is an interpretive methodology based on understanding the underlying meanings of young male's actions and experience regarding their sun protection practices situated on the beach. The research methods adopted in the research are referred to the study of human behaviour in everyday context including observations, interviews and participatory design sessions. These methods reveal different levels of knowledge about young males and the way they approach the world. In this context, different levels of knowledge will reveal layers of young male's experience through spending considerable time in the field that facilitates an explicit and empathetic understanding of their needs through the researcher's interpretation of young male's behaviour in their natural setting. In this manner, the concept of masculinity has been instrumental in identifying the major contributing factors that influence young male's sun protection behaviour through understanding how and why young males behave in a particular way with low levels of sun protection.

Jenny Venton

PhD, School of Computing, Engineering and Mathematics

A poroelastic model of spinal cord cavities

Syringomyelia is a rare medical condition, characterised by large, fluid-filled cavities in the spinal cord. Cavities often develop following injuries or other neurological conditions that affect the free movement of cerebrospinal fluid (CSF) around the spinal cord. Whilst the exact mechanism of cavity formation remains elusive, most research to date agrees that this disturbed CSF flow around the spinal cord is at least partially responsible and has been associated with the tissue oedema that often precedes cavity formation.

To study the effect disturbed CSF flow has on the spinal cord, a poroelastic finite element model of the cord cross section has been built to simulate the circumstances preceding cavity formation. A poroelastic model

allows both the tissue stresses as well as pressure of the extracellular fluid within spinal cord tissue to be calculated. Tissue stresses and internal fluid pressures resulting from simulated disturbed CSF flow will give an indication of whether a cavity is likely to form in these circumstances.

Results from initial simulations show that regions of oedema may increase the likelihood of a syringomyelia cavity developing when the external CSF is disturbed. The results of these simulations will contribute towards the understanding of the pathology of this rare condition.

Madeleine Conaghan

PhD, School of Computing, Engineering and Mathematics

Reducing the Drivers Cognitive burden

This PhD looks to identify and reduce the cognitive demands placed on the driver from the dashboard and centre console through Human Factors Design. This research is conducted through three research studies that build on each other, these include:

Study 1. Glance and interaction analysis: The quantity and nature of the glances and interactions with the dashboard and centre console were recorded in a real-world driving study. Two cameras were placed in Thirty-two drivers own vehicles for a period of 48 hours where the glances and interactions were recorded. Drivers were also asked to fill in a journey diary which recorded their journey variables.

Study 2. Cognitive demand measurement: This study looked to objectively measure the level of cognitive demand placed on the driver from the information and locations that were identified in Study 1 through a lab based study. Thirty-two participants drove a simulated course for approximately 20 minutes whilst completing a series of secondary tasks where Electroencephalography (EEG) was used to record their brain activity. During the simulation, continuous assessment of driving performance, reaction time and indicators of cognitive burden were collected. Following the driving exercise, participants were asked to complete a survey for self-assessment of secondary task difficulty.

Study 3. Reduction through design: The final study looks to build on the knowledge from the previous studies and follows the design process to reduce the cognitive load through design. The proposed solutions will be measured for effectiveness using the objective measures highlighted in Study 2.

Falmer

Work in Progress

Presentations,

Fri 19 May

Session 1, 11.00 - 12.45, Checkland B503		
11.00	Heather Baid	Sustainability in critical care practice
11.15	Denise Harris	The meaning and perceived function of supervision in an NHS organisation
11.30	Liz Blackburn	Health care professional views on the provision of online support for burn patients
11.45	Barbara Seebacher	Findings from my PhD project: How to use motor imagery for walking rehabilitation in people with multiple sclerosis
12.00	Ieva Satkeviciute	Vinblastine-induced axonal transport disruption: A model of neuropathic pain without significant ongoing activity
12.15	Patricia Soares	Homozygosity for the FCER2 rs28364072 variant is associated with an increased use of leukotriene receptor antagonists
12.30	George Goodwin	Investigation into the peripheral mechanisms of neuropathic pain
Session 2, 11.00 - 12.45, Checkland B408		
11.00	Bruno De Oliveira	An exploration of homeless people and stakeholders 'lived experience' of recent UK welfare reforms: A photo-elicitation approach
11.15	Anannia Admassu Sahle	Perception and practices of childhood migration and education among communities in Northeastern Ethiopia
11.30	Catherine Manning	Judgemental and developmental mentoring: a comparative study of mentoring for student teacher in post-compulsory education
11.45	David Glynne-Percy	Triggering and sustaining serious leisure engagement in middle childhood as a route to resilience
12.00	Josie Maitland	Mixed methods study of school staff experiences of an academic resilience approach: A whole systems perspective
12.15	Anne Rathbone	Transformation through participatory research with young learning disabled adults – achievable or just talk?
12.30	Mariana Lima	'Blue carbon' in seagrass meadows: Impacts of recent climate change on carbon sequestration, biomass and greenhouse emissions

Session 1: 11.00 – 12.30, Checkland B503

Chair: Omama Tariq

Heather Baid

PhD, School of Health Sciences

Sustainability in critical care practice

This constructivist grounded theory study is based upon the following research questions:

- How is sustainability constructed by practitioners working in critical care?
- What are the social processes involved in making sustainability issues a component of critical care practice?

Qualitative, in-depth, semi-structured interviews of 11 participants were initially completed through an online or telephone call. Constant comparison analysis occurred within and between the interviews in keeping with grounded theory methods. Participants indicated for them, sustainability meant being able to sustain the resources needed for critical care practice into the future including financial, environmental and social resources. The ongoing data analysis has subsequently led to the concept of satisficing being auditioned as the central organising phenomenon which could help to explain sustainability in critical care practice. Recently, participants have been provided with a summary of the data analysis to date along with focused questions to check out the extent to which satisficing fits and resonates with their own experiences. The purpose of this presentation is to discuss the developing theory based upon satisficing as a core concept along with the other major categories of stewarding and influences on resource use decisions. The presentation will also be an opportunity to receive feedback from the audience on if and how the developing theory relates to Charmaz's (2014) criteria of a grounded theory including credibility, originality, resonance and usefulness.

Denise Harris

PhD, School of Health Sciences

The meaning and perceived function of supervision in an NHS organisation

The focus of this study is the activity of supervision, including clinical supervision, within an NHS organisation.

Existing studies on the topic of supervision have identified a wide range of understanding of supervision purpose and practice. There is a tendency for those studies to assume that it is possible to define or describe supervision as an objective concept, ignoring the findings that supervision is understood differently even within individual professions. The studies have generally focused on the processes and structures that support supervision practice and not considered the organisational factors that mediate on supervision relationships.

I have used a social constructionist epistemology and broadly ethnographic approach to explore this topic. The data collection methods included individual interviews and focus group discussions.

Analysis of the data has provided two main themes:

- Supervision advantages and contradictions
- Organisational mediation

These are then followed by a 'consequential' theme:

- Understanding and using supervision

I have used Foucault's (1975) concept of power/knowledge as a lens to inform the study.

This presentation will include the following aspects:

- An overview of the themes
- Discussion of the implications for the understanding and use of supervision within an NHS organisation
- A reflection on my ongoing research journey

Reference

Foucault, M., 1975. Discipline and Punish: The Birth of the Prison. Translated by A. Sheridan., 1977. London: Allen Lane, Penguin

Liz Blackburn

MRes, School of Health Sciences

Health care professional views on the provision of online support for burn patients

The provision of support for burns survivors has traditionally been via charity funded and regionally run burn support groups. The National Burns Care Standards (2013) outline the importance of burns support groups and the availability of them to both burn survivors and their families, however no online support exists in burns in the UK. This study will use a grounded theory design to explore how health care professionals working within burns consider online support as part of a service to facilitate follow up and support as part of a recovery programme. Little research is found in the online support for burns, therefore building theory about online support and the processes involved in developing such a service and the meaning that holds for health care professionals who might run that service is important. Participants are being recruited via the British Burn Association (a non-profit charity) with up to ten participants being recruited or until sufficiency of the concept is reached. Data will be collected by interview either via telephone or Skype taking a semi-structured, open and in-depth approach. Data will be transcribed verbatim, coded and categorised in order to make comparisons between data and to identify underlying concepts. The aim is to build a substantive theory on health care professionals' understanding of the place for online support in longer term rehabilitation for burn patients.

Barbara Seebacher

PhD, School of Health Sciences

Findings from my PhD project: How to use motor imagery for walking rehabilitation in people with multiple sclerosis

Multiple sclerosis (MS) is a chronic inflammatory neurologic disease which can lead to a multiplicity of

symptoms. A majority of patients have walking impairment and fatigue. For the treatment of patients, many established physiotherapy approaches exist. Within the last two decades, motor imagery has increasingly been used in neurorehabilitation, but rarely in people with MS. Motor imagery is the internal simulation of movements leading to similar activations of the brain's sensorimotor network as real movements. In my PhD project, I investigated the effects of cued and non-cued motor imagery on walking, fatigue and quality of life in people with MS. For the rhythmic auditory cueing, I used music or metronome cues with or without verbal cueing. Based on the results from my studies, I explored the mechanisms, which appeared to have contributed to the observed improvements in walking, fatigue and quality of life in participants. My presentation will illustrate the practical implications of these findings. Using practical examples, I will outline in what ways therapists may use motor imagery and rhythmic auditory cueing to treat walking impairment and fatigue in people with MS.

Ieva Satkeviciute

PhD, Brighton and Sussex Medical School

Vinblastine-induced axonal transport disruption: A model of neuropathic pain without significant ongoing activity

Axonal transport disruption is a major component of neuropathic pain regardless of its aetiology. Local treatment of rat nerves with low doses of the anti-mitotic agent vinblastine causes axonal transport disruption along intact axons and allows examination of the role of axonal transport in the absence of inflammation. In this study, we have investigated the contribution of vinblastine-induced axonal transport disruption to the development of evoked neuropathic pain behaviours. We have also assessed levels of ongoing activity from primary sensory neurons as well as evidence for increased dorsal horn excitability. Comparisons have been made to the nerve inflammation (neuritis) model. Both vinblastine treatment and neuritis caused the development of mechanical and cold allodynia, and heat hyperalgesia that peaked on day 3-5 post-surgery. Burrowing behaviour was decreased at day 5 in both groups compared to saline treatment. Ongoing activity did not increase following vinblastine treatment, whereas 25% of C-fibre neurons fired spontaneously on day 4-5 following neuritis. C-fos expression was upregulated in the ipsilateral dorsal horn in both neuritis and vinblastine-treated groups following repeated A-fibre sciatic nerve electrical stimulation. In summary, axonal transport disruption, with or without inflammation, causes similar patterns of neuropathic pain behaviours. The increase in activity-dependent c-fos expression in both models is consistent with a central mechanism, such as central sensitisation. It is widely accepted that an afferent barrage is necessary to maintain such mechanisms; however, the lack of significant ongoing activity following vinblastine treatment suggests an alternative pathway.

This work was supported by the NC3Rs.

Patricia Soares

PhD, Brighton and Sussex Medical School

Homozygosity for the FCER2 rs28364072 variant is associated with an increased use of leukotriene receptor antagonists

Introduction: Asthma is a chronic respiratory disease characterised by hypersensitive airways. A polymorphism in the FCER2 gene has been shown to be associated with asthma-related hospitalisations and uncontrolled asthma in children treated with inhaled corticosteroids. However, the role of this variant on prescribing is unclear.

Objectives: The aim of this study was to investigate the role of the FCER2 rs28364072 variant on healthcare utilisation.

Methods: A secondary analysis of BREATHE, a cross-sectional study of gene-environment associations with asthma severity was undertaken. Data were collected on participants with asthma, aged 3-22 years, between 2003 and 2005, in Tayside and Fife, Scotland. Collaboration with the Health Informatics Centre, Dundee, enabled BREATHE to be linked to 9 years' routine data: accident & emergency, community prescribing and hospital admissions. Associations between genetic variation and prescribing were explored. Data were analysed using generalised linear models with random effects for participants.

Results: Data on 949 individuals was analysed. A significant association was found between the homozygous variant in the FCER2 gene and prescribing of anti-leukotriene antagonists (AA vs. aa – IRR: 3.85, 95% CI: 1.43-10.34; Aa vs. aa – IRR: 4.96, 95% CI: 1.77-13.86). No association was found with asthma exacerbations, inhaled corticosteroids or long-acting β 2-agonists prescribing, separate or combined.

Conclusions: Individuals homozygous for the rs28364072 variant have a greater risk of long-term prescribing of anti-leukotriene antagonists, which may result from poorer asthma control when these children are treated with inhaled steroids.

George Goodwin

PhD, Brighton and Sussex Medical School

Investigation into the peripheral mechanisms of neuropathic pain

Nerve inflammation (neuritis) disrupts the transport of proteins along the nerve, and this mechanism may contribute to the development of neuropathic pain. At the site of disruption, C-fibres (pain transducing axons) fire in response to mechanical stimulation, most likely due to the accumulation of mechanosensitive ion channels. Vinblastine (which also causes C-fibre mechanical sensitivity) disrupts protein transport in the absence of inflammation, and therefore allows this mechanism to be examined in isolation. In this study, we have examined the mechanisms which lead to the development of mechanical sensitivity.

In adult rats, the sciatic nerve was treated with vinblastine (n=36), complete Freund's adjuvant (for neuritis; n=12) or saline (n=6). On different days post lesion induction electrophysiological experiments (in-vivo and ex-vivo) were carried out. Mechanically sensitive units were profiled and characterised using a force

feedback controlled stimulator (to generate force discharge relationships). Pharmacological agents were applied to mechanically sensitive hot spots, to elucidate the identity of the ion channels. The expression of Transient receptor potential (TRP) channels was determined at the treatment site by immunohistochemistry.

Mechanically sensitive units from neuritis and vinblastine treated nerves showed clear force discharge relationships ($r^2 > 0.37$), which were attenuated after the application of mechanosensitive ion channel blockers. In neuritis nerves, Intra-neural injection of a TRPV1 agonist caused mechanically sensitive units to fire spontaneously (median rates; pre 0.02 hZ, post 0.23 hZ, $n=4$). Further to this, there was an increase in TRPV1 labelling at the treatment site, strongly suggesting a role for TRPV1 in the development of mechanical sensitivity in neuritis nerves.

Session 2: 11.00 – 12.45, Checkland B408

Chair: Willem Stander

Bruno De Oliveira

MPhil, School of Applied Social Science

An exploration of homeless people and stakeholders 'lived experience' of recent UK welfare reforms: A photo-elicitation approach

This research aims to explore the lived experiences of homeless people under recent welfare reforms in the UK. It aims also to have an understanding of how welfare reforms have impacted the delivery of services of key stakeholders. This research will be investigating issues that have impacted homeless people such as what is that like to experience applying for housing and benefits. It will also explore the impacts of welfare reform on key stakeholders such as what is like to provide services to people who have had, their welfare support reduced or ended. The literature below suggests a fertile context for this research which will lead to a valid contribution to knowledge. This research is a step forward as much more empirical and theoretical work is needed. The literature suggests that there is the harmful impact of austerity policies on people experiencing homelessness and on services providers (De Agnostini, Hills, Sutherland, 2014; Roberts and Soederberg, 2014; Moffatt, Lawson, Patterson, Holding, Dennison, Sowden and Brown, 2015).

Anannia Admassu Sahle

MPhil, School of Education

Perception and practices of childhood migration and education among communities in Northeastern Ethiopia

This research is aimed at investigating how childhood migration and education is perceived and practiced by children, families and communities in the Northeastern Region of Amhara Regional State in Ethiopia. In this regard, it will explore whether the cultural and social environment and the context of globalization have an influence over decisions made by children to pursue their education or migrate. Furthermore it will examine if intergenerational and peer relations and globalization have a positive and/or negative impact on the perceptions and practices of children's education and migration. Along with these, the prospects and

challenges of the implementation of the current educational and social protection policies for children will be examined. Based on the principle that children should be considered as ‘social actors’ who could express their views, this research will generate data about children’s agency and their perceptions regarding changes in the intergenerational and peer relationships over the and space, the impact of globalization the interconnectedness between the school and the family. Hence, the research will show the key factors that underpin similarities and differences in the way children and adults perceive and practice childhood migration and education and if they believe or appreciate education as something, which has relevance to contribute towards the improvement of their future lives. This research will, therefore, contribute to existing knowledge by bringing in fresh perspectives about the persistence of the problem childhood migration and the value accorded to education in the study areas.

Catherine Manning

PhD, School of Education

Judgemental and developmental mentoring: a comparative study of mentoring for student teachers in Post-Compulsory Education

Mentoring programmes can now be found in many different settings in the UK and across the world, but how do people understand and enact mentoring? Who are mentors and how do their previous experiences impact on the way they practice? Who are mentees and how do their backgrounds shape the way they perceive and interact with a mentor? What are the consequences of mentoring? This is a comparative study of mentoring for student teachers in Post-Compulsory Education in England and Norway. It draws on biographical interviews and audio recordings of mentoring meetings. I will share some initial findings from my study which aims to explore the questions above. My research focuses on two particular approaches: judgemental and developmental mentoring. We will discuss these and consider how mentoring is viewed and enacted by student teachers and mentors in England and Norway.

David Glynne-Percy

MPhil, School of Health Sciences

Triggering and sustaining serious leisure engagement in middle childhood as a route to resilience

The pupil premium launched in 2010 was the Coalition’s flagship attempt to bridge the nation’s chronic educational attainment gap between the poorest and richest pupils. It amounts to a grant of £1320 per every Free School Meal (FSM – being the government’s indices for comparative disadvantage) pupil per annum in primary school and £935 in secondary schools. In 2014 David Cameron admitted the “unacceptable” fact that Britain has the lowest rate of social mobility in the developed world. Two years later, Theresa May laid out her policy to make Britain “the world’s great meritocracy” and underlying the crucial importance of education in this process she promised to safeguard the pupil premium during her the length of premiership. In the meritocracy surge the secretary of education (2016) said that Britain would become a world leader in teaching “character and resilience.”

Whilst there is there is ample evidence that the effective mastery of social and emotional skills (SEL) is

essential in achieving good life outcomes, the Social Mobility Commission (2015) admitted that little knowledge was known on the quality or process of such programme implementation.

This presentation questions policy initiatives on character formation and explores the potential of engagement through activity. It will reveal emerging findings from documenting twenty success stories of introducing and sustaining a disadvantaged child in Key Stage 2 to an extra-curricular activity and seeks to understand the uniqueness and potency of experiential learning, in shaping pathways to resilience, that are absent in the pedagogic transference of knowledge of current interventions.

Josie Maitland

MPhil, School of Health Sciences

Mixed methods study of school staff experiences of an academic resilience approach: A whole systems perspective

Whilst schools aim to provide equal opportunities for all children, in reality, some minority groups have very different experiences of the system that negatively affects their academic achievement and life outcomes (Sutton, 2009; EHRC, 2010; DfE, 2015).

Previous research into school initiatives that aim to tackle inequality have found that resistance to change, particularly amongst staff, is a significant challenge to the efficacy of these programmes and that such resistance is complex and not fully understood (Hynds, 2010). In addition, a systematic review of existing resilience interventions (Hart and Heaver, 2015) found that few of the approaches could be considered to be sustainable, considering their cost and reliance on external support.

The Academic Resilience Approach (ARA), has been developed by Williams and Hart (2014), as a whole school self improvement process aimed at students achieving good educational outcomes despite adversity. The approach provides free web based tools to review current school practice and support strategic changes to planning and practice. ARA is currently being systematically evaluated in a county wide implementation involving a number of schools in Durham.

This mixed method, systems orientated study aims to articulate and analyse staff perceptions of what factors enable or constrain AR implementation and what structural and perceptual changes might occur in the school.

Anne Rathbone

PhD, School of Health Sciences

Transformation through participatory research with young learning disabled adults – achievable or just talk?

This presentation presents a co-produced participatory action research project with a group of learning disabled people (the co-researchers) who are members of community partner Arts Connect. This study is building from a conceptual view of resilience that advocates for changing, as well as beating, the adversities

stemming from unjust structures, policies and processes (Hart et al, 2016 under review). The research questions (initiated by the author and refined with the co-researchers) are:

- What are the challenges that we face (*as learning disabled people*) and how can we be more resilient?
- What can we learn from the Resilience Framework and what can we teach people about it from our experience?
- What can our experience teach others who want to do research together as a team?

The co-researchers aim to become more resilient, teach others about resilience, share their research with others creatively and to learn new skills along the way.

The presentation focuses in particular on the theories and debates in relation to empowerment and social transformation, and how these relate to participatory research approaches and methods. Building on the academic discourse and including findings from the research, it will outline some opportunities that the concepts of empowerment and personal and social transformation represent. It will also discuss the barriers to their meaningful achievement and how these barriers might be overcome.

Mariana Lima

MPhil, School of Environment and Technology

'Blue carbon' in seagrass meadows: Impacts of recent climate change on carbon sequestration, biomass and greenhouse emissions

Blue carbon research has been pointed out as a promising alternative to mitigate the effects of climate change. Carbon captured by seagrass ecosystems can persist stored in their sediments for long periods of time, up to millennia, contributing significantly to the net removal of global atmospheric CO₂. However, land use change, erosion, and anthropogenic degradation processes have potentially threatened the environmental role of these coastal ecosystems. Sustainable management of blue carbon coastal wetlands is key to avoid the turnover of their carbon rich sediments into potential carbon sources. In order to better understand the efficiency of seagrass meadows as carbon sinks, recent studies have been estimating their carbon storage and sequestration rates worldwide, although the main focus still predominantly remains in tropical regions. Organic carbon storage and sequestration rates in tropical seagrass meadows have been related to species productivity and filtering capacity, as well as environmental factors such as ecosystem composition, sediment characteristics and eutrophication processes. The purpose of this study is to provide an overview of the blue carbon research developed in temperate seagrass ecosystems to date, as well as present comparable carbon storage and sequestration data for seagrass meadows located in the UK. This study hopes to answer how temperate seagrass carbon sequestration rates have responded to recent historical climate change, therefore providing a helpful source of information to corroborate the implementation of protection and conservation projects for these coastal ecosystems.



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Live final of the
Three Minute Thesis (3MT)
competition
Wednesday 17 May
4 – 6pm

Three Minute Thesis challenges doctoral students to present a compelling spoken presentation on their research topic and its significance in just three minutes, using only one slide.

Join us at Falmer as our brave and brilliant students take to the stage to explain their research as the clock ticks down! Vote for your favourite in the People's Choice award while our judges select winners in the pre- and post-transfer categories.

The competition runs 4 – 5pm and will be followed by a drinks reception. Prize winners will be announced at 6pm.

Our 3MT champion will go forward to represent the University of Brighton in the semi-final of the national competition hosted by Vitae.

Good luck to all speakers!

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