A magical mix of tricks and talks

From using magic tricks in experiments to the special nature of the 'aha' moments caused by the tricks themselves, the wonder of magic and its role in science were examined in a series of talks at Goldsmiths, University of London.

The day was organised by Dr Gustav Kuhn, who started off as a magician and later moved into psychology. He said he was quite shocked at the lack of academic literature on magic and psychology – things he sees as inherently linked. In his studies he has looked into how one of magicians' most important techniques, misdirection, is perceived by humans and the mechanisms behind this.

After publishing this work and a framework paper on the links between science and magic, the field became much more popular with academics with a surge, around 15 years ago, in the number of published works on the subject. Indeed, all of the speakers at the event showed that science and magic fit together.

Thomas Strandberg (Lund University) carries out research largely into choice blindness, offering up considerable opportunity to use magic as a tool. The phenomenon describes situations where humans will defend and justify a choice they believe they have made – even if they didn't make it. For example, some of the early work on choice blindness involved giving participants the choice of two pictures and by sleight of hand the participant was given the one they turned down. Researchers found that when asked why the subject chose that picture, they will justify their choice.

Strandberg and his colleagues wanted to see if this phenomenon transfers to political and moral beliefs. In a simple but smart experiment they stopped subjects on the street and asked them to fill out a survey that asked them to rate their agreement with moral statements. Upon turning to the second page of the survey a clever little bit of magic removed the original moral statements (using some adhesive on the back of the clipboard) to reveal a new set of moral statements – which completely opposed those they initially rated their agreement with. When asked to read through their answers participants still justified their choices – some even gave anecdotal reasons, for example 'I was speaking with my mother about this the other day…'.

Having a 'eureka' or 'aha!' moment is quite a strange psychological phenomenon when we look at it more closely. Dr Amory Danek (University of Illinois) has used magic to look into this 'insightful problem solving' – when the solution to a problem suddenly comes to mind seemingly out of nowhere. These moments require that a person change their fixed way of thinking, whether this be in reassessing the nature of objects as in some magic tricks or in something as mundane as using a tool for a different purpose. Danek said that to do this a person must overcome something in their knowledge that they would never usually question: a conceptual change. In some of her work Danek showed participants short filmed magic tricks three times and asked them to come to a solution on how they were done. Magic tricks are the perfect stimulus for insightful problem solving – magicians create false assumptions in their tricks, and to overcome these assumptions one must be flexible in one's thinking and challenge previously held ideas about the nature of things. Danek is aiming to combine behavioural and neuroimaging experiments in order to identify brain regions that are used when we are confronted with stimuli that violate one's expectations.

The day also included fascinating discussions on the potential use of artificial intelligence in creating optimised versions of magic tricks, and two keynote speeches from Peter Lamont and Ronald Rensink on the potential for developing a science of magic as a whole.

The wonder of magic and its role in science were examined in a series of talks at Goldsmiths, University of London

Could magic to be used to influence thoughts you feel you have total control over? Jay Olson (McGill University) has carried out some fascinating research into free will using magic as part of the study. He asked whether, using the magician's technique of forcing, a person's seemingly free choices could be manipulated without their knowledge. Using a dummy MRI scanner Olson convinced his participants they were lying in a machine that could read and influence their thoughts. He asked his 55 participants to think of a number between one and 100 which the machine would 'guess'. In the next room was a printer (which was not even plugged in) which 'printed' the number they were thinking of. Olson said participants were convinced the machine was working – however, he had influenced which number was chosen using a technique used by mentalists.

Second the subjects were told the machine would plant a number in their minds – using the same clever technique – and participants believed this was really happening. Some even reported feeling warm sensations when the machine was working to 'affect' their thoughts. Using the Sense of Agency Rating Scale, the researchers found people felt more control in the first condition and much less in the second. They felt as if they had made a free choice of number in the first condition but had actually been influenced – using just a little bit of magic.

Olson said this showed it was possible to make people believe they didn't have control over their own thoughts, and from this he would be able to answer questions in the future around why we feel we have control over our thoughts when we actually may not.

Chris French (Goldsmiths, University of London) gave a fascinating talk about magic and the paranormal – revealing some interesting facts on paranormal belief among magicians themselves (surprisingly high, given the number of famous sceptics in the magical community). He also told the fascinating story of James Randi's project Alpha – where he used two magicians to convince a group of researchers they were psychics, which many fell for.

A touching talk by Yvonne Farquharson demonstrated how magic can be used in a clinical setting. Farquharson is Managing Director of Breathe, an arts health research not-for-profit, which came into being through Guy's and St Thomas' Charity. She and her colleagues teamed up with magicians from the Magic Circle to help young children with hemiplegia. Children with the condition, which leads to partial or full paralysis of the hand and arm on one side, are required to carry out lots of exercises to help with their dexterity. As Farquharson pointed out, these exercises are boring to most of the children. The magicians were advised by occupational therapists which fine motor movements needed to be practised, and the magicians incorporated this into a set of magic tricks. These tricks were then taught to the children in a fun 'magic summer camp' held over several weeks.

In a video we saw the young children, who previously had trouble zipping up tops or undoing buttons, carrying out these tasks – one remarking 'This is so easy!'. Not only was their dexterity improved but seemingly their confidence and self-esteem. The project is now being rolled out to help adolescents with mental health and anxiety problems. Now that's magical.

The workshop was funded by the Experimental Psychology Society and organiser Gustav Kuhn said he hoped one of the outcomes of the event would eventually be the establishment of a Science of Magic Association, which would aim to organise and run similar conferences in future and support the collaboration between science and magic. **ER**

THE FORWARD VIEW ON MENTAL HEALTH

An independent report by the Mental Health Taskforce, chaired by the Chief Executive of Mind, Paul Farmer, has set out recommendations for mental health care in the NHS. In the wake of this report, Prime Minister David Cameron called for greater focus on mental health in society and committed £1.2 billion extra per year to be spent on mental health by 2020

The report, *The Five Year Forward View for Mental Health*, recommends that there should be round-the-clock care available for people facing a mental health crisis. It calls for an integrated physical and mental health approach, including increased access for 30,000 more women a year to access specialist perinatal care.

Turning to prevention, the Mental Health Taskforce to the NHS in England calls for better access to mental health care for children, and the provision of support for those with mental health problems to gain, or stay in, employment. In addition the report looks at other societal issues known to affect mental health, for example building an evidence base for specialist housing support for vulnerable people with mental health problems.

Meanwhile a survey by the British Psychological Society, in conjunction with the New Savoy Partnership, has revealed that many psychologists are struggling with the issues they aim to treat: 46 per cent of psychological professionals said that they felt depressed and 49.5 per cent reported feeling they were a failure. One quarter said they had a long-term, chronic condition and 70 per cent reported finding their job stressful.

We spoke to Chartered Psychologist Anne Cooke from Canterbury Christ Church University, editor of the Society's report *Understanding Psychosis and Schizophrenia*, for her view on these developments and the future of mental health services in the UK. She praised the Mental Health Taskforce report for its focus on prevention as well as treatment. 'I also welcomed its emphasis on alternatives to hospitalisation for people in acute crisis, although I was disappointed it didn't mention the huge potential of non-medical crisis houses – I have argued elsewhere that we need one in every town.'

Though Cooke agrees that the funding proposed by the government may help a little, she said the sources of strain on psychologists and therapists are multiple. 'Over 40 per cent in the recent BPS and Savoy Partnership survey named managerial fixation on targets as a reason for their stress.' She also suggested a need to tick boxes and 'fit' people into diagnostic criteria could lead to problems: 'Without the potential for flexibility, both client and therapist may go away disappointed.' The emphasis on 'brands of therapy with their various techniques also risks devaluing those aspects of psychological care that we know are often the main "active ingredients": listening, time, compassion, care, adaptability', she added.

The social causes of psychological distress, which are numerous, are impossible to treat with individual therapy, Cooke said. 'Whilst major causes of mental ill-health, poverty and inequality, are growing exponentially, our current technocratic zeitgeist encourages us all to see our problems as individual and psychological rather than social. Psychologists need to broaden our focus and draw attention, for example, to the psychological impact of current policies.'

Cooke and fellow clinical psychologist Jay Watts recently published an article in *The Guardian* discussing these issues and have been inundated with messages from those who do not feel safe to speak out. Cooke said: 'I understand the pressure to present a front of success, competence and ever-greater achievement in stretched times, to pretend we are okay, fine, good. Yet I also believe we must fight for and model an insistence upon organisational structures which make the intense emotional labour that our role requires sustainable... that recognise and contain workforce distress and try to refuse or relieve contextual pressures which cause it.' **ER**

I To read the Mental Health Taskforce report see tinyurl.com/gvc4or3

Our science in Scotland

Dr Sue Northrop, Vice Chair of BPS Scotland, reports from the BPS Scotland Annual Scientific Meeting 2016

Professor Peter Kinderman, President Elect of the British Psychological Society, opened BPS Scotland's 2016 Annual Scientific Meeting in February. He outlined three key ways that the Society makes a difference: through theory, science and knowledge; professional practice; and our value base. Professor Kinderman said that whilst the Society has an important role in supporting the membership, it also has a contribution to make in promoting the voice and impact of psychology to tackle the issues of our time. It was important that members actively set the Society's agenda and he urged members in Scotland to speak out about the issues that mattered to them.

The first speaker was Professor Rosalind Searle, sponsored by the Division of Occupational Psychology Scotland. Her talk – 'Trust matters – strategic choice to preserve or break and repair trust' – highlighted the impact of trust and its violation in organisations. Using data from two distinct studies, Professor Searle outlined the impact of austerity, downsizing and major change on a range of public and private organisations. She examined the need to focus on the choice made by leaders – whether to try and preserve employee trust, or breach it and try to subsequently repair. Professor Searle showed how a choice to work in ways that build trust enabled one organisation to manage a downsizing process in a positive way. Line managers actively supported for people to talk about change, making it their priority. The emotional and relational aspects of change were recognised and supported. Despite major change, this organisation went on to increased employee trust levels.

Managing trust is critical to recruitment, retention and performance and is affected by various factors including the size of organisation, status in the hierarchy and sector. System factors such as procedural fairness and how things are done can have a major impact on trust, as can working with change as a collective as well as an individual process. Managing trust is a strategic choice that leaders make and one that has a significant impact on all organisations, their staff and their efficiency.

The second speaker, Dr Anne Douglas, was sponsored by the Division of Counselling Psychology Scotland, and she spoke about the role of clinical psychology as a discipline in designing, managing and evaluating an NHS Mental Health whole-system response for asylum seekers and refugees of all ages in Glasgow. The service was developed following the 1999 Immigration Act when Glasgow becoming a dispersal city for asylum seekers and refugees. She developed an integrated service model, focusing on liaising with a wide range of services, removing barriers to accessing mainstream services and providing expertise to deliver therapy for those with problems related to complex trauma and also culturally complicated presentations. People using the service were dealing with

Drivers for driving changes

A new report has found the majority of older drivers to be in favour of tighter rules on checking the health and suitability of over-70s to drive, even if those checks could take them off the road. The Institute of Advanced Motorists worked with University of Warwick academics Dr Carol Hawley (Warwick Medical School) and psychologist Professor Elizabeth Maylor to survey more than 2600 drivers and former drivers on their opinions, habits and motoring history.

The Keeping Older Drivers Safe and Mobile survey and subsequent report, found over half of over-70s said they self-regulate to stay safe, by avoiding driving in challenging situations, such as busy traffic, after dark or in rush hour. While mature drivers travel significantly fewer miles than other age groups, 84 per cent of them rated their driving ability as 'good to excellent' and only 6 per cent had ever considered giving up driving.

Hawley worked with Maylor for access to the Warwick University research volunteer panel, which provided nearly all of the respondents. Of those questioned 94 per cent agreed that GPs should be required to inform patients if their medical condition may affect their fitness to drive, and half agreed that a flexible licensing system should be introduced that could restrict types of roads and conditions for some older drivers.

Despite that, a very high proportion of respondents were in favour of measures to increase their safety on the roads. Hawley said: 'Almost 60 per cent of those questioned said drivers should retake the driving test every five years after age 70; 85 per cent said drivers should pass an eyesight test every five years once they have reached 70; and more than half said that drivers aged around 70 should be required to have a medical examination.'

Respondents wanted certain rules to extend further than older drivers – 84 per cent agreed that all drivers should pass an eyesight test every 10 years after first passing, regardless of their age. Researchers also found 82 per cent said that driving was very or extremely important to them, a figure that increases for women. Independence and convenience were cited as the main reasons for wanting to continue driving.

The report concluded that 'the vast majority of respondents agreed that doctors should be required to inform patients if their medical condition may affect their fitness to drive. This raises an important issue, as the literature highlights the complex nature of medical conditions, how they impact on driving performance, and the difficulty professionals face in making judgements over safety and when to advise an individual to stop driving… It is recommended that health professionals are made aware of the importance of advising their patients about driving.' ER

a range of issues including displacement, one aspect of which Dr Douglas described as 'cultural bereavement' – mourning the loss of all aspects of their home environment and culture. Many people had experienced major past trauma and were now also having to cope with the stress of the asylum process.

The new service, now called COMPASS, offers a culturally relevant model of therapy for asylum seekers and refugees. It also provides training and capacity building for other professionals and voluntary organisations. The direct service it delivers has included group work on establishing safety, groups for mother and babies, groups for parents and children in schools and also for unaccompanied young people. There is also a 'User Group', which gives asylum seekers and refugees the potential to influence the things that matter to them. Compass also has a dedicated Art Therapy and Occupational Therapy Service. Regular training placements are also offered to postgraduate trainees.

Developing the service has drawn on a wide range of psychological skills such as research, consultation, creating system change, dealing with conflict, legal report writing and advocacy so it is not solely therapy. The work demonstrates the role that psychology can play in creating new services and supporting wider system change.

AWARD FOR BRAIN INJURY WORK

Dr Jill Winegardner is to receive the Practitioner of the Year Award from the British Psychological Society's Professional Practice Board.

Six years ago Dr Winegardner came to Britain to work in the National Health Service as she was no longer able to do the kind of brain injury rehabilitation she wished in the USA. She was appointed lead clinical psychologist at the Oliver Zangwill Centre for Neuropsychological Rehabilitation in Ely, Cambridgeshire, where she still works.

Before coming to Britain Dr Winegardner founded and directed the Cleveland Metro Brain Injury Rehabilitation Programme in Ohio. After working there she moved to Nicaragua to help establish the field of neuropsychology in that country before moving to California to work in brain injury rehabilitation there. She still supports a rural health charity in Nicaragua.

Dr Winegardner said:

'I am delighted to accept this award. My work at the Oliver Zangwill Centre has taught me the value of working in a solid team, and I think this award reflects the integrity and creativity of my team, including our founder Professor Barbara Wilson, without whom this would not have been possible. I am grateful to my NHS Trust, Cambridgeshire Community Services, for supporting the holistic neuropsychological rehabilitation here that is not possible in the US. Although I miss the California coast, I was happy to trade it to work in a health system founded on principles of access and fairness to all.'

Professor Jamie Hacker Hughes, President of the British Psychological Society, commented: 'California's loss is our gain – and we're very happy to have Dr Winegardner with us and very grateful too for all her work at the Oliver Zangwill Centre. Many congratulations to her on this award.'

I We will be interviewing Dr Winegardner in a future issue

Lifetime achievement award

Professor Robin Morris is to receive this year's Lifetime Achievement Award from the British Psychological Society's Professional Practice Board.

Professor Morris has had a distinguished career nationally and internationally, for the last 26 years working at the Institute of Psychiatry, Psychology and Neuroscience (IoPPN) as head of clinical neuropsychology in the Maudsley and Bethlem Hospitals and then in King's College Hospital, London. He is also lead for neuropsychology in the newly formed Neurosciences Clinical Academic Group in the King's Health Partners Academic Health Sciences Centre.

Combining clinical work and research, he has applied his expertise in neuropsychology to researching a range of neurological and psychiatric disorders, including, more recently, people with dementia and cerebrovascular disorders. His work in the IoPPN has also encompassed epilepsy, attention deficit hyperactivity disorder, psychosis and eating disorders.

His research interests have included developing cognitive neuropsychological models in complex areas such as the 'self' in relation to memory processes and integrating neuropsychological and psychosocial frameworks concerning how to better understand neuropsychological disability.

Professor Morris has been awarded numerous competitive research grants, authored more than 250 scientific papers, supervised many PhD students and trained around 80 clinical psychology trainees in clinical neuropsychology. He said: 'In receiving the award I am profoundly grateful for the generosity and support of my colleagues and students. I also feel very fortunate to have worked with many people at the forefront of neuropsychology, both in developing theories about how the mind and brain work, but also in finding new ways of helping people with neuropsychological conditions. I am looking forward to the next stage of my career, with neuroscience continuing to expand very rapidly and the likelihood of many new developments.'

Professor Jamie Hacker Hughes, President of the British Psychological Society, commented: 'I am delighted – particularly as a (much less eminent) neuropsychologist myself – to be able to offer my congratulations, on the Society's behalf, to Robin on such a well-deserved Lifetime Achievement Award. His achievements in this field have already been immense and I wish him much further continuing success in the future.'

I We plan to hear more about Professor Morris's work with dementia in a future issue

Exploring psychologies of ageing

Elizabeth Peel, Carol Holland and **Michael Murray** report from a British Psychological Society seminar series

Three universities, Worcester, Keele and Aston, came together between May 2015 and February 2016 to explore psychologies of ageing: the range of social, critical, cognitive, biological and community psychology perspectives adopted when researchers and practitioners focus on the topic.

The first seminar of the series, hosted by the Association for Dementia Studies at the University of Worcester, discussed 'Ageing in Context: Identities and Diversities' with delegates including academics, healthcare workers and service users. Social research, recognising diversity in ageing across genders, sexualities, illnesses, contexts and lifespan trajectories (e.g. Peel & Harding, 2016), was to the fore. What does a recognition of different identities mean for ageing well? And how does psychology, health and social care best engage with identities and diversity within an ageing population?

Professor Dawn Brooker, Director of the Association for Dementia Studies, opened with a talk focused on maintaining personhood in advanced dementia through understandings of identity. She discussed the policy narrative around dementia, which has shifted from one that positioned dementia as 'the death that leaves the body behind' to notions of 'living well with dementia'. Bringing person-centred dementia care approaches alive through vivid personal illustrations based on life-story work, Brooker highlighted the importance of cohort effects in maintaining personhood, identity and sense of self (Brooker & Latham, 2015).

The second speaker was Christine Bryden, a key figure in the dementia self-advocacy movement (Bryden, 2015) who was diagnosed with younger onset dementia in 1995. She discussed her perspective on receiving a 'toxic dementia prescription' – a diagnosis that communicated hopelessness and helplessness. The moving talk offered a framework for those with dementia to find meaning, highlighting the key components of identity, connectedness, security, autonomy, meaning, growth and joy.

The final speaker, Professor Sue Wilkinson, discussed the challenge of identity in making advance decisions to refuse treatment (AD: see also the December 2015 issue). One in three of us will lose 'mental capacity' by the end of our lives: ADs allow an individual to make decisions about future health care in advance of that. Professor Wilkinson focused on the challenges to personal identity posed by chronic disorders of consciousness, and by dementia, around issues of biographical continuity and rupture. She also discussed how a particular notion of identity is not universally shared, and how the concept may be shaped by, for example, gender, sexuality, ethnicity and religion.

As well as smaller group discussion there were 10 poster presentations addressing many different diversity and identity issues impacting older people, such as lesbian, gay, bisexual and trans issues in dementia (see tinyurl.com/hdnwfhx), visual impairment and intergenerational practice. For instance, Daniel Herron's research at Keele focused on understanding the subjective experiences of people with learning disabilities and dementia, and Jennifer Bray and Karan Jutlla's research at Worcester considered awareness of dementia in black and ethnic minority communities. Taken together, this first seminar foregrounded chronic and long-term conditions that disproportionately affect older people, while moving beyond a traditional emphasis on the ageing individual, to explore the relational and social contexts of dementia care and end-of-life decision making.

The second seminar, hosted by the Aston Research Centre for Healthy Ageing, focused on 'Positive Ageing: Lifestyles and Living Well'. How do active or 'healthy' environments interact with personal variables such as coping styles, cognitive health, mobility and co-morbidities? The seminar examined the underlying issue of whether positive ageing and prevention of frailty, cognitive decline and dependency is all about reducing illness risk and neuropathies.

Dr Anne Hendry, National Clinical Lead for Integrated Care from NHS Scotland, provided the first talk. She discussed initiatives implemented via a plan for active and healthy ageing, in particular the Reshaping Care for Older People programme. This was underpinned by an ambitious shift towards more preventative, anticipatory and coordinated care and support at home, delivered with local people and communities. A key thread throughout the day, and emphasised in this opening talk, was the malleability of frailty and the potentials for reversibility, leading to concepts of anticipatory care, prevention strategies and lifestyle issues such as physical movement and exercise (see tinyurl.com/h3hlr4s).

Next up was Dr Anna Phillips (University of Birmingham), who examined the impacts of stress on health in older age. Stress and depression can worsen immunity, particularly among older adults, as illustrated by the varying response to vaccination or in wound healing, for example after surgery. Caregiving was highlighted as a source of chronic stress that has increased detrimental effects when combined with increased age. Dr Phillips outlined both positive and negative psychological and social factors that can boost or harm immunity, and she demonstrated that being even just a little more physically active can result in a positive response (Heaney et al., 2014).

Dr Sarah Bauermeister (University of Leeds) then discussed experimental research focused on cognitive variability and physical predictors of falls in older adults. Certain physical measures, such as poor grip strength, impaired balance or gait speed, are associated with falls. Focusing on more psychological measures, Bauermeister reported on her findings that deficits in executive function and greater 'cognitive variability' – the variation in trial to trial (or moment to moment) reaction time for a single person in a given cognitive task – were associated with a higher likelihood of falling. However, we were again shown evidence that both the physical and cognitive predictors of falls

can be positively affected by physical fitness and activity intervention (Bauermeister & Bunce, 2014).

The last speaker was Professor Eef Hogervorst (Loughborough University), who discussed the healthy lifestyle issues that can reduce dementia incidence. For example, she illustrated the dementia risk factors such as obesity, diabetes and high cholesterol that we may be familiar with, but also issues such as poor oral health and periodontitis. Hogervorst discussed current interest in the '5:2' concept, whereby people eat far fewer calories than normal for two days in each week, suggesting its positive effect on insulin control. The links between diet and exercise were discussed, with resistance exercise being positively supported in terms of links with cognition (e.g. see Hogervorst et al., 2012). Hogervorst also led a 'cooking for cognition' practical workshop, which demonstrated how combining some of the ingredients that have been associated with a reduced dementia risk (e.g. turmeric, olive oil and tempe) can be used in tasty meals (e.g. Soni et al., 2015). A concurrent workshop, facilitated by Maria Parsons of the Creative Dementia Arts Network Oxford, explored using creative arts to maintain the health and wellbeing of people with dementia: activities such as singing, dancing, reciting poetry or taking photos can help when words begin to fail us.

At the 'Lifestyles and Living Well' seminar, poster presentations included Emma Broome's PhD research at the University of Nottingham looking at factors that enable high-quality arts programmes in care homes, and two presentations on mild cognitive impairment from Heather Yemm at Worcester and Danielle Clarkesmith and colleagues at Aston. ARCHA research on autobiographical memory training, older drivers' behaviour, rehabilitating word-finding difficulties, assisted living, and mobile diet diary app use also featured.

The final seminar, hosted by the Keele Initiative on Ageing, spotlighted 'Ageing in Place: Independence and Communities'. This seminar explored ways of enhancing community participation among older people, and involved delegates from local authorities, housing agencies, community organisations and advocacy groups. Many older people have lived in their neighbourhoods for a large part of their lives, yet social exclusion from social and civic activities can negatively impact people as they age. The first speaker, Guy Robertson from Positive Ageing Associates, overviewed some emotional and psychological aspects of 'positive ageing' (Robertson, 2014). His interactive talk also focused on dispelling harmful 'myths' about ageing.

Older people's sense of self is strongly rooted in place. In the second talk, Professor Judith Sixsmith (Northampton University) described how on the one hand, the provision of home and community supports can enable people to successfully 'age in place' by improving physical and mental health, supporting social participation and enhancing independence; on the other hand, ageing in place can be an ideal forced on older people who are not fully integrated into the development, content and delivery of place-based supports. Using the case study of a community-based participatory research approach with low-income minority ethnic older people in British Columbia who were being re-homed by a non-profit housing provider, she emphasised the 'brokering' role of academics in building community partnerships, and developing shared interests and common goals, which then generate synergistic outcomes. By detailing the methodology (which included experiential walks with residents wearing 'GoPro' cameras) she demonstrated how research can be used to co-create meaningful housing solutions for older people transitioning into affordable housing.

Next up was Swansea University's Dr Charles Musselwhite, who explored auto-mobility, community connections and independence in later life. Drawing on a critical gerontological perspective, he discussed his research on older people giving up driving. Contrary to the notion that people's health and wellbeing deteriorate when they give-up driving, Dr Musselwhite found that older people can successfully give up driving with little or no ill effects. In part, he suggested, this is due to informal support networks and availability of services and shops, but moving beyond 'auto-mobility' is also due to changes in perception about different modes of transport and changing where activities are located. He also suggested that car-linked independence was a misnomer, and that the affective and interdependent aspects of travels are important in this context.

The seminar series was rounded-off with a talk from Paul McGarry (Manchester City Council) about the policy, practical, and fiscal challenges in building an age-friendly city. He situated the Manchester case study in a national UK context which, since 2010, has not had a national ageing strategy. Through the development of an age-friendly city network, innovative partnership working has attempted to 'age-proof' universal services and promote innovative local initiatives such as the 'Valuing Older People Cultural Offer' in Manchester. McGarry discussed strategies for engaging people in times of austerity and budgetary cuts, and the advantage of applying an 'ageing lens' to services and city infrastructure. Establishing an 'age-friendly night club' in Manchester was symbolic of many of the initiatives he discussed to engender interdependence and community for those in later life.

Poster presentations at this final seminar included the effects of reading poetry (Richard Seymour, Keele), empowering older people in care settings (Peter Kevern, Staffordshire), structured autobiographical memory (Fiona Leahy, Aston) and intergenerational practice (Katie Wright-Bevans, Keele). There was also a display of some of the work from the New Dynamics of Ageing research programme (Beech & Murray, 2013).

There were numerous suggestions from those involved in the seminar series about future events, including isolation, ageist language, psychological interventions for dementia, involving older people in research, and facilitating the move from research to practice. Two hundred people were involved in this BPS-supported seminar series, we hope the conversation continues.

References

Bauermeister, S. & Bunce, D. (2014). Aerobic fitness and intraindividual reaction time variability in middle and old age. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*. doi:10.1093/geronb/gbu152

Beech, R. & Murray, M. (2013). Social engagement and healthy ageing in disadvantaged communities. *Quality in Ageing and Older Adults, 14*, 12–24.

Brooker, D. & Latham, I. (2015). *Person-centred dementia care* (2nd edn). London: Jessica Kingsley.

Bryden, C. (2015). *Nothing about us without us: 20 years of dementia advocacy.* London: Jessica Kingsley.

Heaney, J.L.J., Carroll, D. & Phillips, A.C. (2014). Physical activity, life events stress, cortisol, and DHEA in older adults. *Journal of Aging and Physical Activity, 22*, 465–473.

Hogervorst, E., Clifford, A., Stock, J. et al. (2012). Exercise to prevent cognitive decline and Alzheimer's disease. *Journal of Alzheimer's Disease & Parkinsonism, 2*, e117.

Peel, E. & Harding, R. (Eds.) (2016). *Ageing and sexualities: Interdisciplinary perspective*. Farnham: Ashgate.

Roberston, G. (2014). *How to age positively.* Bristol: Positive Ageing Associates.

Soni, M., White, L.R., Kridawati, A. et al. (2015). Phytoestrogen consumption and risk for cognitive decline and dementia. *Journal of Steroid Biochemistry and Molecular Biology*. doi:10.1016/j.jsbmb.2015.10.024

5 minutes with...

Anna Sallis, Behavioural Insights Research Advisor at Public Health England

A recent trial involving more than 1500 GP practices found that writing to GPs about their antibiotics prescribing resulted in 73,000 fewer prescriptions over six months. The trial (see tinyurl.com/hwoagnr), a collaboration between Chief Medical Officer Dame Sally Davies, Public Health England (PHE), and the Behavioural Insights Team, was part of the government's plans to slow the growth of antimicrobial resistance. We spoke to Anna Sallis, a health psychologist at the PHE Behavioural Insights Team, for more on the trial and what the future holds for the team.

Why did you have an interest in working in the Public Health England (PHE) Behavioural Insights Team?
The potential to design and conduct robust behaviour change interventions that can have an immediate and widespread impact on supporting healthy choices attracted me.

I trained as a health psychologist whilst working as a government social researcher and later as a Senior Psychologist at the Department for Work and Pensions. My work involved applying health psychology theory and evidence to policy in health and work, sickness absence and welfare reform. Before this I worked at the Maudsley Hospital evaluating staff prevention and management of violence training.

Around the time I qualified in 2011, the Cabinet Office Behavioural Insights Team was becoming big news across government. This opened up many opportunities to apply behavioural science to policy, and I moved to the Department of Health to help set up their internal Behavioural Insights Team. Soon after this team was established and we had plenty of trials up and running, I moved on to become the expert adviser to the new PHE Behavioural Insights Team. I'm also on the British Psychological Society's Behaviour Change Advisory Group, and am Policy Officer for the BPS Division of Health Psychology.

Can you give me a little background in how this trial on social norms feedback came about?
PHE leads implementation streams of the cross-government UK Five Year Antimicrobial Resistance Strategy with a remit to facilitate a reduction in total antimicrobial prescribing in primary care to 2009/10 financial year levels. Members of the research team had been involved in numerous policy trials demonstrating the impact of both behaviourally informed letters and social norms feedback on both health and economic outcomes. We know that social norms act as a marker for social comparison against which individuals evaluate the appropriateness of their own behaviour compared to others. Observed discrepancies then motivate the individual to change their behaviour to be in line with their peers.

Anna Sallis has been part of the government's plans to slow the growth of antimicrobial resistance

Although medical practices have access to their own and others' prescribing data, we do not know how many practices actively look at this and how much attention is paid to the information. Feeding back this data directly to named prescribers using a high-profile messenger (England's Chief Medical Officer, Dame Sally Davies) highlights not only how GPs compare with others, but also that others can and do use it to monitor prescribing behaviour. To move the intervention from a passive letter to an active intervention, we included 'behavioural instruction' in the form of three simple, concrete actions that the Chief Medical Officer recommends GPs take in order to reduce their prescribing levels (give patients advice on self-care instead, consider offering a delayed prescription instead, and talk to other prescribers to ensure they are also acting).

What's the future of the antimicrobial resistance work the team is doing?
We have a range of projects under way to deliver aspects of the UK Five Year Antimicrobial Resistance Strategy. These include translating the positive evidence from our social norms feedback randomised controlled trial (RCT) into routine practice, and we have been working with NHS England and the NHS Business Services Authority to send out similar letters in winter 2015/16 to all GPs in practices with high antibiotic prescribing rates.

We are currently implementing a cluster RCT with over 200 GP practices to test the impact of two interventions aimed at reducing patient demand for antibiotics and increasing GP commitment to not prescribing antibiotics when they are not clinically indicated. I am also leading a review of primary care antimicrobial stewardship policies and programmes; the aim of the review is to classify the interventions into the Behaviour Change Wheel set out by Susan Michie and colleagues, to identify gaps and opportunities for policy.

We are also involved in wider PHE work contributing to projects led by others, including the evaluation of evaluating the impact of Antibiotic Guardian (a pledge-based campaign aimed at both public and healthcare professionals to raise awareness of antimicrobial resistance), interviewing community pharmacists about antimicrobial resistance and designing an intervention to reduce inappropriate antibiotic prescribing in out-of-hours services.

Starting a conversation on A-level psychology

Two university lecturers have written for The Conversation discussing concerns over whether the current A-level psychology exams and syllabuses, taught to students since September, are already out of date.

University of Sheffield Psychology lecturer Dr China Mills, and Dr Jenny Slater, a Lecturer in Education and Disability Studies at Sheffield Hallam University, also suggested that government policy focusing on 'nudge' techniques and 'fixing' certain behaviours affects psychology syllabuses. They suggested A-level psychology courses tend to focus on 'problems' in individuals and largely ignore societal effects on behaviour – they also link to articles from *The Psychologist*, including a letter from members of the British Psychological Society urging the psychological community to take societal factors in mental health into account: particularly austerity measures.

Dr China Mills

In their article (tinyurl.com/hplxdbu) Mills and Slater attempted to answer questions on sample psychology A-level exam papers published by AQA – the largest exam board. The question they focus on is: 'News correspondents in inner cities have remarked upon how young males frequently carry weapons and engage in threatening behaviour. Using your knowledge of evolutionary explanations of aggression, account for these high levels of aggression in young males.' Their answer asks critical questions about evolutionary theories and points to alternative evidence of the causes of aggression, including research showing that austerity can be linked to mental ill health and potentially feelings of powerlessness which may lead young men to carry weapons. They also suggest racial discrimination within the police may lead young black and Asian men to feel anger at the levels of poverty and discrimination they are facing.

Dr Jenny Slater

However, their answer would receive few marks according to the AQA marking criteria, which suggests the question should be marked thus: 'Male aggression derives from need to acquire/defend resources such as mates or territory (in the city) and/or to establish status (in groups of peers or between gangs); male aggression derives from sexual jealousy of other males who may have sex with or steal their mates.'

The authors point out they do not wish to criticise teachers who have to teach this curriculum but write: 'Rather we hope to start a conversation between students, A-Level teachers, and university teachers, lecturers and professors that could change the very terms by which we understand what psychology means, is, and does.' **ER**

Club drug use in LGBT populations

New guidance has been published to address the needs of lesbian, gay, bisexual and trans people, particularly about club-drug use and high-risk sexual behaviours among these populations. The document, *Club Drug Use Among Lesbian, Gay, Bisexual and Trans (LGBT) People*, is aimed at clinicians, policy makers and commissioners, and guides improved service and treatment planning for these populations.

The report points to increasing evidence that in three distinct areas gay men, in particular, bear a disproportionate burden of ill health: sexual health, mental health, and the use of alcohol, drugs and tobacco. Produced by the NEPTUNE project, it describes patterns of club-drug use among these populations and also looks at the factors that may impact on the use of substances in LGBT populations.

NEPTUNE – the Novel Psychoactive Treatment UK Network – was set up to provide guidance on the clinical management for the harmful effects of novel psychoactive substances and so-called club drugs. Its chair and Consultant Psychiatrist at CNWL, Dr Owen Bowden-Jones, said: 'Lesbian, gay, bisexual and trans people are entitled to quality services provided in a safe and appropriate environment, and to good health and wellbeing. It is the responsibility of policy makers, commissioners and front-line health staff to meet the needs of these populations and to strive for health equality.'

The document makes it clear that it should not be used to sensationalise drug taking among the LGBT community or risky sexual behaviours. While rates of drug use are higher than in the general population, most do not use substances, while among those who do use substances, most do so in ways not linked with significant harm. Barriers to accessing health care are also key, with LGBT people less likely than the general population to seek help from health or social care services, or to reveal their sexual identity. The report also points to other areas of ill health where the LGBT population bears a greater burden compared with the wider population, such as mental ill-health.

Researcher Dr Dima Abdulrahim from CNWL, who co-wrote the document, said: 'The evidence strongly suggests that harm-reduction measures and treatment interventions must tackle drug use together with sexual health and mental health, the areas where LGBT populations bear a disproportionate burden of ill health.' **ER**

NEPTUNE is funded by the independent charity the Health Foundation; the full report can be found at tinyurl.com/jgo25b8