Welcome to the School of Psychology Newsletter, Winter 2019

Welcome to the Winter Edition of the School of Psychology newsletter for 2018. We have all had an extremely busy and productive semester with a lot of activity within the School itself. As with the start of every academic year we’ve welcomed our new cohorts of undergraduate and postgraduate students with social events in the School (page 7). We have also bid a fond farewell to a number of academics who have taken on fresh challenges elsewhere, while at the same time welcoming new members of staff to the School (page 5).

Our major public engagement event of the year, the Anderson Lecture, took place in October. Professor Lisa Feldman Barrett addressed a capacity audience at the Kings College conference centre on her research within the field of emotion (page 7). We’ve also had substantial grant success over the last 6 months (page 9) and seen our first cohort form the MSc in Foundations of Clinical Psychology graduate and enter the workforce (page 6).

Also in this edition of the newsletter, we continue to feature the work of one of our PhD students (page 4) and highlight the experiences of some recent visitors to the School who have spent some time working in our labs (page 8). We wrap up things by highlighting recent publications and other success stories from the last 6 months.

Wishing you a very happy start to 2019!

Dr Lynden Miles, Director of Communications.
Neural mechanisms of long-range spatial vision: an investigation of perceptive, integrative and association fields across the lifespan

Seeing the world around us appears to be as easy as opening our eyes. However, the brain faces an enormous challenge in delivering this vivid, three-dimensional, colourful, rich percept from the 2-D (flat) inputs it receives from each eye. To solve the problem, the visual system processes the inputs in multiple, increasingly complex levels of analysis. In this 32-month BBSRC funded project, Dr Martinovic (Principal Investigator), Dr Chakravarthi (Co-Investigator) and Dr Reuther (Research Fellow) aim to determine how these different levels of analysis relate to each other and how this relationship changes with ageing.

The project will use multiple techniques, behavioural, electrophysiological (EEG) and computational, to assess this relationship. The strength of its approach is that it will use the same experimental setup to probe multiple levels. Specifically, the main interest is in determining the relationships between the levels involved in a) detecting object features, the so-called perceptive fields, b) integrating these features together, the integration fields, and c) combining these features into contours, the association fields. In all of these fields, distant objects can affect each other. The project will examine how such long-range interactions take place and determine how similar or different they are at the different levels. With this approach the project can determine not only the relationship between these ‘fields’ but also the neural mechanisms through which they interact. Both quantitative and qualitative predictions regarding the visual system will emerge from the project, which would enable the development of precise models of object recognition, a primary goal of research on perception.

Importantly, the project will trace whether and how these mechanisms change over age. It is known that normal ageing substantially affects visual perception. Well known are the changes in the eye itself, such as the lens turning yellow. Far less known is how the brain itself changes over time. The project’s approach will shed light on whether more noise develops in the brain with age or rather if the way neurons in the brain interact with each other (through mutual inhibition) changes.

With these approaches, the project hopes to deliver new insights into how the visual system works. Excitingly, the results of these studies may also be used to develop better visual environments in a variety of settings. For example, the project incorporates focus groups with older adults to find out what they find easy and difficult in their environments, regarding things they interact with ranging from their phones and TVs to bathrooms. The researchers plan to engage bathroom designers in Aberdeenshire to develop designs that make it easier to see in the bathroom, even when visual aids such as glasses or contacts are removed and the bathroom gets fogged up with steam (see picture for an example – note how key elements remain visible when outlined in colour).

FIND OUT MORE:
www.abdn.ac.uk/psychology/people/profiles/rama
www.abdn.ac.uk/psychology/people/profiles/j.martinovic

Example stimuli showing the effects of enhancing the visibility of bathroom features
**Cultural differences in body language**

Globalisation means that people from different cultures are increasingly likely to interact with one another either in person or via video link. Effective cross-cultural interaction requires not only understanding spoken language but also decoding nonverbal cues, such as facial expressions, eye gaze, hand gestures, posture and voice tone and loudness. Despite nonverbal behaviours being a fundamental element of human communication, they vary in their usage and meaning across cultures. The same nonverbal behaviour can be interpreted or valued differently in different cultures. For example, eye contact shows attentiveness and sincerity in western cultures, whereas it is thought to be disrespectful and rude in many East Asian cultures.

This project will establish how cross-cultural differences in expressing and decoding nonverbal behaviour influence interpersonal communication. It aims to achieve two goals: 1) identifying the common and culture-specific nonverbal behaviours produced by English and Mandarin speakers during face-to-face communication; and 2) establishing how English and Mandarin speakers interpret nonverbal behaviour in the other culture. The findings of this project will provide a unique opportunity to understand the impact of completely different social and cultural norms on the production and comprehension of nonverbal behaviour in human interaction. Outcomes of the proposed project can produce significant societal impact through enhancing the public awareness of cross-cultural differences in nonverbal behaviour. This will improve British and Chinese people’s ability to “read” each others’ nonverbal behaviour, which will allow greater levels of trust to be built between UK-China communication partners and avoid conflict due to misunderstandings of nonverbal behaviour.

This project was conducted by Dr Mingyuan Chu, in collaboration with Prof Xiaolin Zhou at Peking University.

FIND OUT MORE:
www.abdn.ac.uk/psychology/profiles/mingyuan.chu

**Spatial Associations with Number**

Number can be represented in many ways. Arabic or Roman symbols, written or spoken words, finger positions, or beads on an abacus can all convey the same quantity but in very different formats. However, the dominant view in psychology is that our internal representation of magnitude (or, put simply, how we think about quantities) is shared between different number formats. One source of evidence for this comes from the pleasingly named “SNARC” (or Spatial Numerical Association of Response Codes) effect. This is the finding that people are faster to respond to small quantities with their left hand and to larger quantities with their right hand. For example, when making odd versus even decisions to a series of numbers, we are faster to respond with our left hand to the numbers 1-4 and with our right hand to the numbers 6-9. This has been attributed to a notation-independent “mental number line”, as it occurs for visually presented digits, written words, and spoken numbers.

In this project, we investigated whether the SNARC effect arises for representations of quantity in their rawest form; in other words, differing numbers of visually presented objects. We presented people with pictures of between one and nine triangles, and asked them to indicate whether the triangles were presented pointing upwards, or downwards. Across three experiments, we found no evidence that participants were faster to respond to small quantities with their left hand and large quantities with their right hand; in other words, we did not find a SNARC effect. As a result of this finding, we concluded that the spatial-numerical associations that people hold may be restricted to higher level representations of number such as digits. This could reflect the external representations of number that people experience on a day-to-day basis (e.g., rulers, numbers on a QWERTY keyboard).

This project was conducted by Dr Sandie Cleland, in collaboration with our undergraduate students Kathryn Corsico and Kirstin White.

FIND OUT MORE:
The paper resulting from this project is freely available here: https://psyarxiv.com/24y6k
Interpersonal synchrony and mental health

Second year PhD student Cathy Macpherson talks about her research on how the science of coordination dynamics can give insight into people’s mental health.

My PhD project seeks to examine the influence of mental health status on interpersonal coordination. Coordinating with others is an integral part of our social world, allowing us to engage in a range of activities from ballroom dancing, to simply walking and talking. Coordination also appears to influence the degree to which we connect socially with others - a large body of empirical evidence now exists highlighting a bidirectional relationship between interpersonal coordination and a wide range of social outcomes, including rapport, liking and helping. Recently, research has suggested that the beneficial outcomes of coordination also extend towards influencing functional outcomes such as group productivity.

Within the literature on interpersonal coordination, however, it has been observed that some individuals coordinate to a much greater degree than others. For example, differences in the social motives of an individual can have a profound impact on the extent to which an individual will coordinate with another. Such an influence has also been highlighted in the field of mental health. Here, individuals suffering from a number of mental health disorders (e.g. social anxiety disorder, autism spectrum disorder) have been shown to present with deficits in the emergence of interpersonal coordination. It is currently unclear, however, whether the symptoms associated with these disorders may influence interpersonal coordination within a non-clinical population.

This is an important question to tackle, given that deficits in coordination can be associated with poor social functioning and other adverse outcomes. In the first year of my PhD we found results to suggest that normal variation in mental health does appear to influence the way in which we coordinate with others. Further, our analyses suggest some interesting differences regarding the influence of specific sets of symptoms (e.g., anxiety, depression). Now, I am examining whether the actions of your interaction partner may change the way in which the influence of mental health status on coordination manifests. For example, preliminary analyses suggest that gaze direction of an interaction partner changes the patterns of coordination that emerge.

My PhD is funded by The Carnegie Trust, and my supervisors are Dr Lynden Miles and Dr Dannette Marie from the School of Psychology, at the University of Aberdeen. Recently, I also received a Postgraduate Study Visits Award from The British Psychological Society, to allow me to visit Macquarie University in Sydney, Australia in February 2019. This trip offers me an exciting opportunity to work with some of the leading scientists in this field, and to apply the latest techniques in order to collect and quantify interpersonal dynamics data.

FIND OUT MORE: If you would like to learn more about my research, I can be contacted at r05mm17@abdn.ac.uk.
**Introducing our new staff**

**Dr Evelyn Janetta**

Dr Evelyn Jannetta received her Doctorate in Clinical Psychology from the University of Edinburgh in 2009. She has worked in clinical practice since then in a range of physical health settings and additionally in an adult mental health role more recently. She has specialist experience in the areas of chronic pain and respiratory conditions.

Evelyn is currently employed part-time as a clinician in the Respiratory Service in NHS Grampian where she also delivers education and training within medical settings. This has included aspects of the theory-practice link in developing understanding and application of psychological approaches in patient populations. Prior to training as a clinical psychologist, Evelyn worked in a range of educational settings including a tertiary level institute and an American university campus in Japan.

For her clinical psychology doctorate, Evelyn undertook qualitative research into the expectations of gene therapy treatment for cystic fibrosis. For her current MSc dissertation, she is undertaking research into the role of health literacy in patients with chronic obstructive pulmonary disease (COPD).

**Dr Jason Bohan**

Dr Jason Bohan joined the School of Psychology in August as a Senior Lecturer (Scholarship). As our brand new Director of Teaching & Learning, Jason is responsible for the management and overseeing of all teaching and learning within the School.

He completed his PhD at Glasgow University utilising eye tracking and ERP methodologies to investigate shallow processing in reading. He has a broad range of research interests including factors that enhance student learning, such as blended learning and development of graduate attributes. At Glasgow University he was employed to coordinate the first year student experience in psychology where he was responsible for the educational experience of over 600 students annually, and later managed a student advising system supporting over 15,000 students within the College of Science.

Beyond the university, Jason is a keen hill walker, runner, and part-time bird-watcher, making Aberdeen an ideal home to enjoy his hobbies.

**Anderson Lecture 2018**

It was our great pleasure to welcome Professor Lisa Feldman Barrett to the University of Aberdeen as our School of Psychology Anderson speaker this year. Her talk - ‘Emotions: Separating Fact from Fiction’ - was sold out, and members of the public, students, and academics all enjoyed hearing her dispel some common myths about emotions. Afterwards, audience members had a chance to chat with her informally while enjoying some snacks and refreshments. Her talk stimulated much discussion, and it was wonderful to see so many people engaged and interested!

Professor Feldman Barrett is a Distinguished Professor of Psychology at Northeastern University in Boston, with appointments at Harvard Medical School and Massachusetts General Hospital. She is currently blazing a trail in the field of emotion theory and research, providing a compelling alternative to some of the more classical approaches to research in this area.

You can view Professor Feldman Barrett’s Anderson lecture here: www.youtube.com/watch?v=Y0voA2xc18&feature=youtu.be

Find out more about Professor Feldman Barrett here: https://lisafeldmanbarrett.com/
MSc Foundations in Clinical Psychology

Testimonies from the first cohort of graduating students who have moved onto a range of posts including as Support Workers, Assistant Psychologist and Trainee Psychological Therapist

Breige YORSTON
graduated with a MSc
(with distinction)

Since leaving the University of Aberdeen I have started a second Honorary Assistant Psychologist contract within the NHS, meaning I now work with both the Adult Mental Health Primary Care Team and with the Forensic department at Royal Cornhill Hospital. Teaching on paediatric clinical psychology on the course gave me the confidence to apply to volunteer at a camp in Ireland for children affected by serious illness. I have since volunteered at two camp sessions and will likely be returning to volunteer at more sessions in 2019. I will also soon be commencing work with Barnardo’s as a project worker where I will be based in a primary school, working with children and their families to promote school engagement. Teaching on systemic approaches on the MSc course will likely prove to be very useful in this latter role.

Claire DOUGLAS
graduated with a MSc
(with distinction)

The course has been immensely helpful in aiding me to secure the posts I have today. Although the field I am currently working in outlines an undergraduate qualification is sufficient to secure paid employment, my postgraduate qualification has helped me secure a post with the Scottish Association for Mental Health and an NHS Assistant Psychologist post. In terms of the future, I am hopeful that this MSc is beneficial in my application for doctoral training (DClinPsy) – I have no doubts that the learning and skills I developed on this course I will take forward into future employment and training.

Jonathan SPRY
graduated with a MSc
(with distinction)

By studying and completing the MSc Foundations of Clinical Psychology course, I acquired a variety of core clinical skills through a range of assignments, presentations, workshops, seminars, experiential exercises, guided role-plays and reflective tasks. Through interactive learning and studying clinical case studies, I developed a strong understanding of the application of psychological assessment, formulation, and treatment across a range of clinical presentations. Acquiring this level of knowledge and experience from the MSc course has been both invaluable and instrumental in pursuing the MSc in Psychological Therapy in Primary Care course, as I am currently contemplating a career as a Clinical Associate in Applied Psychology for NHS Scotland.

Breige YORSTON
graduated with a MSc
(with distinction)

Claire DOUGLAS
graduated with a MSc
(with distinction)

Jonathan SPRY
graduated with a MSc
(with distinction)
Welcome Events

At the beginning of each academic year the School of Psychology hosts a number of social events to welcome the new cohort of students. Over a drink and some nibbles, staff and students get together to meet and informally chat about life in the School and just to get to know each other a little before the more serious business begins. This year we held two events. First, during Fresher’s week, we invited the new Level 1 cohort to a welcome and ‘meet and greet’ event. We were delighted that well over 100 students chose to join us to learn a little more about the School, and meet not only each other but many of the academic staff as well. The following week we held a separate reception for our new postgraduate students. With our increasingly large and diverse postgraduate population, this event provided another ideal opportunity to speak with prospective supervisors and share experiences with fellow students. Enabling interaction between staff and students of all levels outside the classroom context helps build an inclusive and engaging community within the School and the many benefits this brings.

Marie DVORAKOVA – graduated with a Postgraduate Certificate

I left the University in January 2018, following acceptance of a place on a training course for psychological therapists. I found the MSc teaching to be particularly helpful in allowing me to gain a better understanding of clinical practice and what therapeutic work with clients might be like. Talking to various professionals from the area gave me a better insight into what the day-to-day work of a Clinical Psychologist is like, as well as into the different career opportunities that are available.

For more information about the course please see: https://www.abdn.ac.uk/study/postgraduate-taught/degree-programmes/1099/foundations-of-clinical-psychology/ or contact Dr Ceri Trevethan, Programme Co-ordinator: c.trevethan@abdn.ac.uk
Reports from visiting scholars

Science, Whisky and Scotland by Dr Alexandra Hering, University of Geneva, Switzerland

My name is Alexandra Hering, I am a research and teaching fellow at the University of Geneva in Switzerland. This spring and summer, I had the opportunity to visit the School of Psychology at the University of Aberdeen to conduct a study together with Dr Katharina Schnitzspahn. An early career award that I received from the School of Psychology supported my visits.

During my visits, we worked together with Dr Jasna Martinovic and Francesco Pupillo on a study examining the influence of mood on prospective memory. Prospective memory describes the ability to realize intentions in the future, for example to visit Balmoral Castle (the Queen’s Scottish residence!) when being in Scotland during summer. Of course, different moods in everyday life affect our memory for intentions. Imagine how difficult it can be to prepare for an exam when being newly in love or being sad over a break up. The study also uses EEG (electroencephalography) measures to capture neural mechanisms underlying performance and their modulations by different types of mood.

I visited Aberdeen in May and July. First, we set up the experiment and implemented our procedure in the EEG lab. During the second visit, we started the data collection. I was impressed by the helpfulness and support of the colleagues who introduced us to the lab and the hard work and effort put in by Francesco. By the end of my time in Aberdeen, the study was running very well and I look forward to analyzing the data.

Besides the scientific work, I also had the opportunity to enjoy Aberdeen and Scotland. To be honest, these were already my fifth and sixth visit to Aberdeen, the city got me somehow over the last years. As an undergraduate student, I worked as a student intern on a research project during summer. This year I also had the opportunity to see more from the countryside and visit different whisky distilleries and castles.

The early career award allowed me to start a first independent collaboration with excellent researchers. Moreover, I could combine my (scientific) work with pleasure and benefited hugely from the friendliness of the colleagues in Aberdeen.

I am very happy that I got this opportunity and I look forward to coming back at some point.

From US capital to Aberdeen by Laysa Hedjan, American University, Washington, D.C.

My name is Laysa Hedjar and I am a PhD student at the American University in Washington DC. For the summer of 2018, I was awarded an EPS study visit grant to work with Drs Jasna Martinovic and Søren Andersen. The aim of our project was to investigate the neural correlates of human perception of contrast and luminance using EEG (electroencephalography). Our visual system is optimized in many ways to capture differences in the environment. The “contrast asynchrony paradigm” (www.shapirolab.net) is a display of two flashing circles, one on a dark background and one on a bright background. Even though the circles are flashing together (bright at the same time and dark at the same time), we perceive the circles as flashing out of phase. This is because the contrast between the two circles and their backgrounds is different – when one has high contrast, the other has low contrast. We wanted to see if this “contrast marker” would be evident with EEG using an adaptation of the original asynchrony paradigm. Finding a correlation between cortical activity and our stimulus would tell us about how and where contrast is processed in the visual pathway.

My time at the University was well-rounded and productive. Drs Martinovic and Andersen are knowledgeable in their fields and provided guidance and support at all stages of the project. I gained experience using EEG, learning how to use the recording software and properly run participants, and practicing the steps for data analysis. Fellow postgraduate and undergraduate students were also inviting and helpful when I had particular questions. The students and faculty in the department were of a high calibre – I had many intelligent discussions with them and they were all passionate about their own work. Overall I was impressed and pleased with my stay and definitely look forward to upcoming research from the School of Psychology.

https://www.researchgate.net/scientific-contributions/213698886_Laysa_Hedjar
Recent Activities

PhD students

This autumn we welcomed six new PhD students to our School, supported by a variety of funding sources.

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<th>STUDENT NAME</th>
<th>FUNDING</th>
<th>FIRST SUPERVISOR</th>
<th>SECOND SUPERVISOR</th>
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<tr>
<td>Ana Rozman</td>
<td>BBSRC Eastbio</td>
<td>Jasna Martinovic</td>
<td>Louise Phillips / Ines Jentzch (St Andrews)</td>
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<td>Siobhan Caughey</td>
<td>Self</td>
<td>Neil Macrae</td>
<td>Arash Sahraie</td>
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<td>Dimitra Tsamadi</td>
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<td>Neil Macrae</td>
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<td>Jialing Ma</td>
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<td>Louise Phillips</td>
<td>Sandie Cleland</td>
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<td>Malgorzata (Gosia)</td>
<td>School Studentship 1+3</td>
<td>Bert Timmermans</td>
<td>Madge Jackson</td>
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<td>Zsofia Stefan</td>
<td>School Studentship 1+3</td>
<td>Agnieszka Konopka</td>
<td>Soren Andersen</td>
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RESEARCH FUNDING AND AWARDS

1. **Dr. Mingyuan Chu** has successfully secured a Carnegie Incentive grant (£9,852) on “Establishing how cross-cultural differences in nonverbal behaviours influence face-to-face communication”.

2. **Dr Agnieszka Konopka** has successfully secured a Carnegie Incentive Grant (£5,134) on “Informativity in language production: a cross-linguistic investigation”.

3. **Dr Jacqui Hutchison** has successfully secured a Royal Society Partnership grant (£3000) on “Can we break the mould of stereotypes” in collaboration with Portlethen Primary School, Aberdeen, U.K.

4. PhD student **Francesco Pupillo** has successfully secured a BPS Cognitive Conference Bursary (£339) to present his work on the influence of mood on prospective memory in young and older adults at the BPS Cognitive Psychology Section Conference in Liverpool, U.K. in August 2018.

5. **Dr Anna Nowakowska** and **Dr Louisa Lawrie** have been awarded Associate Fellowship status of the Higher Education Academy.

6. PhD student **Cathy Macpherson** (page 4) was awarded a BPS Postgraduate Study Visit award (£1250) to spend a month conducting research in the School of Psychology at Macquarie University in Australia.

Public engagement

Laura Cowie was funded by the Carnegie Trust to work on a project looking at aging and theory of mind over the summer with Prof Louise Phillips and Louisa Lawrie. As part of the award she presented a poster to the board of the Carnegie Trust in September.

Dr Devin Ray’s recent publication: “On Being Forgotten: Memory and Forgetting Serve as Signals of Interpersonal Importance,” (Ray, Gomillion, Pintea, & Hamlin, 2018, Journal of Personality and Social Psychology) has received wide press coverage. Some highlights include:


The School of Psychology was pleased to join in the University-wide celebrations of National Coming Out Day on October 11th. Many staff proudly displaying rainbow and trans pride flags on their windows, doors, and even clothing! National Coming Out Day is observed around the
Recent Activities ctd.

world on the as a celebration of the LGBT+ community and in recognition that the process of coming out can still be very difficult, and indeed, for many people, can still be very dangerous. As a Stonewall Diversity Champion and Athena SWAN award holder, The School of Psychology supports and welcomes all our staff, students, and visitors, regardless of their sexual orientation or gender identity.

Dr Amy Irwin presented an overview of Human Factors in Industry to a professional audience as part of the University ‘Business Breakfast’ programme. Attendees included professionals from the oil and gas industry, human factors consultants and engineers. The workshop included a case study assessment based on a healthcare incident.

Dr Doug Martin gave a talk at the Gordon Schools in Huntly: “How do society’s stereotypes form and change (or not change)!”

Dr Amy Irwin hosted the Safety Snapshot photo exhibition in November. The event was held as part of the ESRC festival of social science and was well attended with plenty of networking and chat about safety and human factors going on.

Publications

Key: Current academic staff, research fellows/assistants, postgraduates, undergraduates


Cauvin, S., Moulin, C., Souchay, C., Schnitzspahn, K., & Kliegel, M. (2018). Laboratory vs. naturalistic prospective memory task predictions: young adults are overconfident outside of the laboratory. Memory. DOI: https://doi.org/10.1080/09658211.2018.1540703


Schenk, T., & Hesse, C. (2018). Do we have distinct systems for immediate and delayed actions? A selective review on the role of visual memory in action. Cortex, 98, 228-248. DOI: https://doi.org/10.1016/j.cortex.2017.05.014


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Keeping Up With The News
For more information about what we are up to in the School please visit our website, follow us on Facebook and Twitter, or get in touch with us via e-mail or phone.

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