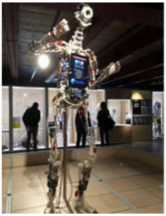
December 2017: Merry Christmas from the BEAM Lab!

On a very chilly 8th December, current and former members of the lab got together for a Christmas outing to see the fun and thought-provoking 'Robots' exhibition at the Museum of Science and Industry, followed by a very nice lunch at Dukes 92 in Castlefield. We are looking forward to continuing our work and starting some exciting new projects in 2018.



COMMUNICATION

December 2017: NCCPE ENGAGE Conference

Ellen gave a joint presentation with Matthew Sullivan (Manchester Metropolitan University) titled 'Emerging and unexpected benefits of long-term collaboration' as part of a workshop on 'Rethinking Engagement for Health' at the ENGAGE conference in Bristol on 6th December 2017. The conference was organised by the National Coordinating Centre for Public Engagement and included interesting discussions about patient-researcher relationships and the various ways in which we can learn from each other. The conference also showcased different perspectives and methods of engaging the public in research and we hope to apply some of these in our future work.

Emerging and unexpected benefits of long term collaboration
Models of Engagement

December 2017: Funding for autism engagement and awareness

Emma and Ellen, together with members of Autism@Manchester, have been awarded £1100 to run two autism events on 26th March and 21st May 2018. The project, titled "Engaging the autistic community and raising awareness about the women within it", aims to enhance connections between researchers and the autism community, and to raise awareness of women with autism who are an under diagnosed section of the population. Funding was awarded from the Faculty's "Social responsibility - engaging our communities" fund and from the Division of Neuroscience and Experimental Psychology, University of Manchester.

November 2017: ESRC IAA funding success – Dance and Parkinson's

Jude and Ellen have been awarded a Research into Practice grant via the ESRC Impact Accelerator Account for a collaborative project on dance for Parkinson's. Starting in January 2018, we will be working with co-investigators Matthew Sullivan (Manchester Metropolitan University) and Gayathri Ganapathy (Equilibrium Dance and Arts), as well as the English National Ballet. The project aims to develop and trial a therapeutic dance programme to improve movement and communication for people with Parkinson's.

November 2017: Parkinson's events

Jade spoke at the Parkinson's UK Greater Manchester Information and Awareness Day on 4th November, giving an overview of the lab's various projects relating to Parkinson's. Her presentation received positive feedback and comments on Twitter. Jade was also invited to give a talk at the "Positively Parkinson's" event on 17th November, hosted jointly by Parkinson's UK and her alma mater, the University of Lincoln's School of Psychology. She spoke about some of the lab's recent work as well as her planned PhD project to a mixed audience of academics, nurses, and people with Parkinson's.

Action Observation
Watching
Copying
Imagining

October 2017: Manchester Science Festival

As part of the Manchester Science Festival, A Masterclass in Movement was presented by the Body, Eyes and Movement (BEAM) lab in collaboration with Dr Gayathri Ganapathy of Equilibrium Dance and Arts at Manchester Museum on 25th October. The event aimed to encourage children and adults to think about why we dance and how it affects the brain and our emotions. We began by asking the audience to think about why we dance, and what happens in our brain when we dance. This was followed by an introduction about how the brain controls our movements with information from the senses, and the importance of action observation and imitation.

Two activities were designed for everybody to join in. The first involved looking around at the animal exhibits in the museum and imagining how they move, then putting their movements into a sequence and acting them out as a group. The second activity was performed in pairs, with one person acting as the 'dancer' and the other person acting as the 'mirror', trying to copy their partner's movements as accurately as possible. This demonstrated how we learn by watching and imitating others. Participants also rated how they felt before and after the activities to explore how dance can effect emotions.

Manchester Science Festival
A Master-class in Movement

October 2017: Parkinson's UK Research Support Network

Jude gave a talk at the Parkinson's UK Research Support Network conference on 15th October about our new project on the effects of dance for Parkinson's. This included plans for our pilot study, in which we are measuring responses when people with Parkinson's watch different forms of dance, and was co-presented with Dr Gayathri Ganapathy, who provided an interactive demonstration of movements based on classical Indian dance. The conference was attended by more than 130 delegates, with many more watching the live broadcast around the world. We hope to be able to share results of the pilot study soon.

October 2017: Acquired Brain Injury rehabilitation seminar

On 4th October Martin hosted a seminar at the Head Forward Centre (a charity that delivers social rehabilitation for Traumatic Brain Injury Survivors), named "the Self as the core of the rehabilitation pathway: from individual difference to social achievements" and gave a talk about time experiences in Acquired Brain Injury.

October 2017: New guidelines for autism research

The Autism@Manchester group has published co-developed guidelines to help researchers and people with autism to work together effectively.

September - October 2017: Exploring Somatic Sensation

Ellen and Jude have been working with the Loop Dance company on a project titled 'Exploring Somatic Sensation', which applies neuroscientific methods to investigating reactions of audience members during immersive dance performances. The aim of this work is to identify what makes a performance engaging, and how the immersive dance experience affects audiences physically and emotionally. We have been recording spontaneous movement and heart rate to explore physiological responses, and will be analysing how these relate to people's reported experiences.

September 2017: British Association for Cognitive Neuroscience

Ellen gave a presentation on "Observing affordances and transitive actions in Parkinson's disease" at the BACN meeting in Plymouth on 7th September, as part of a symposium on "Cognitive neuroscience of object affordance and its clinical implications". It was great to also hear about work examining how these processes may (or may not) be affected in autism, as well as work on apraxia, attention and affordances and testing the direct and indirect pathways.

September 2017: European Conference on Visual Perception and British Congress of Optometry and Vision Science

Sabrina presented her findings on a study titled 'Do Symmetry and Closure have bidirectional links?' at the ECVP on 30th August and at the BCOVS on 4th September. The study examined how perception of symmetry and closure might be related, and found that these two aspects of visual perception benefit each other, suggesting that altered perception in one will affect the other.

July 2017: Parkinson's PPI workshop

Jade, Ellen and Jen hosted a workshop jointly organised by Parkinson's UK at the University of Manchester as part of Jade's Research Involvement Award. The workshop provided an opportunity for Jade to present her PhD research plans to a group of Patient and Public Involvement volunteers affected by Parkinson's and related impulse control disorders. The volunteers' discussions afterwards helped to shape ongoing research plans and identify any barriers that may prevent people with Parkinson's participating in the proposed research.

July 2017: Experimental Psychology Society conference

Jade presented a poster on "Continuous force measurement of response activation and inhibition in Parkinson's disease" at the latest EPS meeting on 12-14th July.

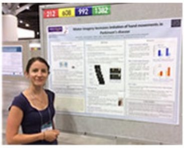
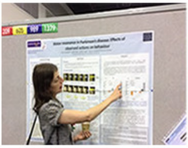
June 2017: MRC CiC funding success

Ellen, Emma and Jude have been awarded an MRC Confidence in Concept (CiC) grant with co-investigators from Manchester Metropolitan University and Lancaster University. The grant will fund a feasibility study of a home-based therapy for Parkinson's disease, which uses action observation and motor imagery to practice functional actions.

June 2017: International Parkinson's Disease and Movement Disorders Congress

Ellen and Jude attended the 21st International Parkinson's Disease and Movement Disorders congress in Vancouver to present our latest research on action observation and motor imagery in Parkinson's.

This was a great opportunity to share our findings with researchers from around the world, as well as clinicians and healthcare professionals. We learned about new research in areas related to our work, such as co-speech gestures, motivation, functional action training and dance therapy. We also heard about the latest developments in other fields of Parkinson's research, including stem cell techniques, physiotherapy and exercise, and the use of technology for monitoring symptoms.

May 2017: Research in Imagery and Observation (RIO) group meeting

Jude and Ellen presented some of the latest findings from our Parkinson's research at the annual RIO group meeting, which took place at the University of Roehampton on 18-19 May. The RIO group brings together researchers investigating action observation and motor imagery from different disciplines (neuroscience, clinical and sport). The meeting provides a unique environment in which to share knowledge and ideas, and was interesting and productive as always.

University of Roehampton
London
Quantitative measurement of imitation

May 2017: ESRC funding success

Emma and Ellen have received a 3 year ESRC grant to look at time perception in autistic adults, starting in September 2017. The work will be in collaboration with Dr Luke Jones and Dr Daniel Poole.

May 2017: BEAM Lab visits Siobhan Davies exhibition at the Whitworth

We recently visited an exhibition by the Siobhan Davies Dance group at the Whitworth Gallery in Manchester. The exhibition, titled "material/rearranged/to/be", is a live installation that explores how observing dance and movement makes us feel. Following on from our recent research workshop on dance for Parkinson's (21st April), we also invited people with Parkinson's to join us, and there were some interesting discussions that will further inform our research in this area.

April 2017: Dance for Parkinson's Research Workshop

On 21st April we hosted a research workshop to explore the potential benefits of dance for people with Parkinson's disease. The workshop was attended by researchers, practitioners and people with Parkinson's, and included presentations, interactive demonstrations and group discussions. The workshop generated some interesting ideas for future research and we received a lot of positive feedback about the event. Read a brief report about the workshop (PDF)

April 2017: PPI funding success

Ellen, Jen and Jade successfully applied for a Research Involvement Award from Parkinson's UK. Parkinson's UK are now helping to set up a PPI focus group about Jade's PhD project which will take place at the end of June.

Work experience: BEAM Lab and Whitworth Gallery

Read about Psychology student Amy Matthews' experience (PDF) of working on a science-art project for primary school children with the BEAM Lab and Whitworth Gallery.

March 2017: Visit to Parkinson's UK Trafford

Jude visited the Trafford branch of Parkinson's UK on 14th March to give an update on our Parkinson's research, along with researchers from the INVEST project. We were made to feel very welcome and members were interested to hear about our findings and planned work. We hope to return and give a further update in the future.

February 2017: Machine Learning Workshop

PhD student Andrius Vabalas gave a presentation at the inaugural machine learning workshop series in the School of Electrical and Electronic Engineering. His presentation was on 'Support Vector Machine Method and Its Application for Single Subject Prediction of a Clinical Disorder'.

December 2016: Dance and Parkinson's - seed funding

Jude and Ellen have been awarded seed funding from the Manchester Institute for Collaborative Research on Ageing (MICRA), in conjunction with Manchester Metropolitan University, to develop a research proposal on dance for Parkinson's. We look forward to working on this exciting project with collaborators Matthew Sullivan (MMU) and Gayathri Ganapathy (Equilibrium Dance & Arts).

December 2016: Winter graduation

Congratulations to Jade Pickering (MSc) and Stacey Humphries (PhD), who celebrated their graduations on 14th December. Jade is now working towards her PhD in the BEAM lab and Stacey has obtained a post-doctoral scholar position at the University of Pennsylvania, USA.

December 2016: An undergraduate's experience of an EPS studentship in the BEAM Lab

Tasnim Eljabri was awarded a studentship from the Experimental Psychology Society to work on a summer placement on multisensory integration.

READ: How a Summer Studentship Turned into an Eye-Opening Learning Experience (PDF)

Joint UoM-MMU Health Research Accelerator Award

Along with colleagues from Manchester Metropolitan University, Ellen, Emma and Jude have been awarded a small grant to investigate technology applications for action observation therapy in Parkinson's. The project, starting in January 2017, will explore patients' views on using mobile technology for home-based training.

World Parkinson Congress 2016

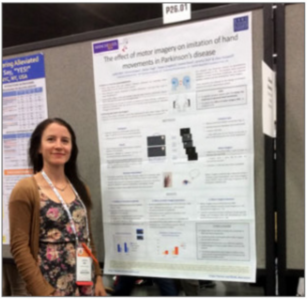
The 4th World Parkinson Congress took place on 20-23 September in Portland, Oregon, and was attended by over 4000 delegates from 67 countries.

In addition to updates on drug development, genetics and stem cell therapies, an increasing focus on non-medical approaches to improving symptoms and quality of life in Parkinson's was evident, including interesting presentations on exercise and dance therapies. The congress also showcased the latest developments in healthcare technology for Parkinson's (e.g. mobile apps for monitoring symptoms).

The WPC was an inspiring event at which people with Parkinson's were well represented among both attendees and presenters, providing a unique opportunity for sharing perspectives and generating research ideas. Alongside a comprehensive scientific programme there were thought-provoking art exhibitions (including the *Parkinson's Quilt Project* and *This is Parkinson's* photography project) as well as an incredible evening of music and performance from people with Parkinson's.

4th World
Parkinson
Congress
Portland, Oregon, USA

PARKINSON'S QUILT PROJECT
WORLD PARKINSON CONGRESS


P26.01
The effect of motor imagery on imitation of hand movements in Parkinson's disease

Opportunities and challenges of using wearable technology to facilitate clinical trials in PD
Alberto J. Espay, MD, MSc

July 2016: Congratulations to Psychology student, Jordan who completed his undergraduate project in the BEAM lab and was awarded the Lynn Young prize in Psychology.

Jordan said: "The project in particular was a real highlight of my studies. I was able to bring a patient's outlook to the research and I can definitely see the benefits that this will have for others who will be able to gain independence and improve their day to day lives once the final application is ready."

May 2016: Emma gives a tour round the BEAM lab using a 360 degree camera

Click here to see the lab tour and listen to Emma talking about research in the BEAM lab. The films was made by Bernadette Tynan as part of her Masters project.

April 2016: Two undergraduate Psychology students share their thoughts on work experience in the BEAM lab

Between November 2015 and April 2016, Audrey Poh and Iqra Shabbir assisted on a collaborative project between the BEAM lab and Women Asylum Seekers that explored imitation through dance and drama. Click here here to read about their experience on the project.

April 2016: BEAM lab hosts the Research in Imagery and Observation (RIO) Group 10th Anniversary Meeting

On 6th and 7th April 2016 the BEAM lab and Manchester Metropolitan University jointly hosted the 10th anniversary meeting of the RIO group (http://riogroup.weebly.com/).

The RIO group brings together cognitive, neuroscience, clinical and sports researchers to share the latest research findings in action observation and motor imagery. There was an interesting variety of talks and posters from all disciplines including a strong representation from the BEAM lab, presenting our work on imitation and imagery in healthy adults and Parkinson's disease. Keynote lectures were given by Dr Beatriz Calvo Merino (City University) on the role of expertise in action observation and embodiment, and Prof. Giovanni Buccino (Università Magna Graecia) on the involvement of the basal ganglia in motor resonance.

Workshop: Action observation and imitation in Parkinson's disease

On 8th April we also hosted a workshop linked to our ESRC-funded project on imitation in Parkinson's disease. We were joined by over 40 guests from a diverse range of backgrounds, including researchers, physiotherapists, dance practitioners and people with Parkinson's. The aims of the workshop were to disseminate our latest findings on imitation and action observation in Parkinson's and to generate discussion and ideas for future research.

As well as presenting our own findings, we enjoyed hearing about related work including the use of action sounds as a cue for walking (Dr Will Young, Brunel University) and an overview of action observation therapy in neurorehabiliation (Prof. Giovanni Buccino). There was also an interesting talk on physiotherapy for Parkinson's by Dr Emma Stack (University of Southampton), and an interactive demonstration of the effects of dance on mood by Dr Peter Lovatt (University of Hertfordshire) – aka 'Dr Dance'!

Welcome
Purpose of Workshop

April 2016:

Emma features in a short film discussing the similarities between our brains and computers

Read "Your brain the supercomputer here"

April 2016: autism@manchester launch a series of short films

To coincide with World Autism Awareness Week (2nd - 8th April), autism@manchester is launching a series of short films featuring autistic adults sharing their experiences of being autistic and their thoughts on autism research. The films are part of a Wellcome Trust funded project between academics within autism@manchester and a local support group, salfordautism. Films and a 2 question survey can be found here: https://sbli.ls.manchester.ac.uk/local/autism/

January 2016: WAST & BEAM lab video

Watch the video about our project connecting the science of imitation with Women Asylum Seekers

January 2016: Autism workshop project

Read the blog post about our Wellcome Trust funded autism workshop project

December 2015: PhD success for Briony, Dan, Steve and Lizzi

Briony Banks has successfully defended her thesis. Well done Briony!

Daniel Poole, Stephen Jachim and Elizabeth Lewis all successfully defended their thesis in the same week. Well done guys!

November 2015: Exploring imitation through dance and drama: An imitation of WAST

'An imitation of WAST', a theatrical performance exploring imitation through dance and drama, was performed at the Z-Arts centre in Manchester on 16th November. This was the culmination of our art-science project, 'Imitation, dance and understanding: Connecting scientists and Women Asylum Seekers Together (WAST)', which introduced women asylum seekers to the work of the BEAM lab.

Caribbean
Mali

'An imitation of WAST' was performed to a diverse audience including representatives from community organisations, local arts venues and family members, as well as academics, following an introduction from Rachel Calam, head of the School of Psychological Sciences. The women from WAST used dance and drama to express ideas about imitation based on their recent visit to the BEAM lab, including a traditional story with imitated actions and a display of dances from different cultures that had been learned through imitation.

It was an interactive show that had the audience imitating movements using glow-sticks and coming down onto the stage to learn a Caribbean dance at the end.

It was a very stimulating and enjoyable event, and encouraged the audience to think differently about science and imitation.

"It was excellent – great mix of science and arts plus real energy"

"...made me think about what connects us as humans and what happens when we are unable to imitate"

November 2015: BEAM at the Science Spectacular "Move like me"

The Science Spectacular event took place on 31st October at the Manchester Museum and Whitworth Hall as part of the Manchester Science Festival.

This was a free family day for adults and children of all ages where scientists demonstrated their research through interactive demonstrations and activities.

Visitors to our stall learned about imitation by copying a partner's actions while their movements were recorded using a motion tracker, or seeing whether it was easier to do a puzzle after watching someone else or by reading instructions.

It was a busy and successful event. Both children and adults found the activities enjoyable and interesting, and hopefully we have made people think more about imitation and how they use it in everyday life.

The University of Manchester
SCIENCE SPECTACULAR
We copied eachother it was cool

November 2015:

Find Emma and Ellen on the "Make a difference" tumblr.

October 2015: Science art masterclass in partnership with the Whitworth art gallery

Emma and Ellen ran a week long science-art masterclass for local school children aged 9-10 years with Steven Roper from the Whitworth art gallery and local artist Antony Hall. See here for more details about the event.

October 2015: Visit to the BEAM lab by WAST (Women Asylum Seekers Together)

A group of women from WAST (Women Asylum Seekers Together) visited the BEAM labs on 12th October as part of a science-art engagement project.

The project, titled ?Imitation, dance and understanding: Connecting scientists and Women Asylum Seekers Together (WAST)?, involves BEAM scientists working with Bassajamba, a social enterprise aimed at engaging under-represented groups in science, and a choreographer. The project links imitation in scientific study and artistic expression, focusing on the role of imitation in social understanding and empathy.

During the visit, the group was introduced to the lab?s research areas and measurement techniques, and had the opportunity to try out motion tracking and eye tracking equipment and see data from their own movement. Following on from the lab visit, the women will take part in a series of workshops with a choreographer and a technician, applying what they have learned to develop a set of imitative dance movements that will be used in a theatrical production.

Comments from the women showed that they found the experience interesting and enjoyable, and most of them had not previously experienced a scientific research environment.

"[imitating] just makes you feel that we are all human beings; whatever another person does you can also do?"

"I found it very interesting"

"I wasn?t quite sure what to expect? I really enjoyed it"

"the way it was organised? was really good"

August 2015: Ece Bayram from Turkey writes about her research visit to Manchester

As I was planning a project for my thesis on verb and noun naming in Parkinson?s disease patients I came across this lab through my readings. Dr Poliakoff was kind enough to have me for the summer where I worked on the collected data of Parkinson?s disease patients for a study on gestures.

Throughout the three months I?ve spent here, I analysed the data based on our hypothesis about nouns containing various amounts of action. As it?s shown that Parkinson?s disease patients tend to produce less verbs with high action content compared to low action containing verbs, we predicted to see the same result for the nouns as well. As we?re still analysing the speech samples we?ll work on this matter after my departure as well.

It?s been a very educational summer for me and I believe it has prepared me to work on my thesis project. I got to discuss my thesis project with the lab members and get their feedbacks to improve it. In addition to that, I was also introduced to a person with Parkinson?s disease to discuss the feasibility of my project, which helped me shape the tasks I had in mind better.

It?s been great being part of this lab and working with these people even for a short time! I?m hoping to collaborate more with the BEAM lab on different Parkinson?s disease projects after we?ve finished the study we?ve worked on this summer.

July 2015: Sam Rintoul, a student on the BSc Psychology degree shares his thoughts on work experience in the BEAM lab

An insight into the research process: Work experience in the BEAM lab
Sam Rintoul, BSc Psychology

From January 2015 to June 2015 I carried out a work placement in the Body Eyes and Movement Laboratory (BEAM Lab), working on research into imitation in Parkinson's disease. The main objective for my participation was to aid in the creation of the experimental stimuli. These were a series of video clips displaying hand movements, which participants would aim to imitate.

Firstly, I was introduced to past and current research by taking part in an experiment with a similar paradigm, and reading research papers published by the BEAM Lab. Then, working with Dr Bek I helped to plan the filming and production of stimulus videos. Finally, with the experimental stimuli created, the study was able to move into a pilot trial phase. In this phase of the project, I again became a participant and was also able to provide constructive feedback towards the new protocol.

One of the most valuable facets of the placement at the BEAM Lab was the exposure to scientific research from a researcher's point of view. Previously, most of the experiences I have had with research were from a participant's perspective, however this placement gave me the opportunity to follow the progress of a project from planning to piloting.

The most salient message I have taken from this placement is that the sheer amount of time and effort that goes into research is immense. I learnt that every single aspect of each section of the experiment had to be checked, double checked, discussed and reviewed. From my previous experience of 'research' (in timetabled labs) students were given a paradigm and an experiment and then wrote a report, all within four weeks. However, from experiencing this project, I now appreciate why (in order for results to be reliable and valid) research takes such an incredible amount of time and effort.

From a student's point of view the experience I have gained from the BEAM Lab is invaluable. It has given me a closer look at the inner workings of scientific research, and also developed my own analytical and research based skills. This will be particularly of use as I come to plan my final year project, and also look to post-graduate study.

June 2015: Stewart Mostofsky's visit to Manchester

The BEAM lab were pleased to welcome Professor Stewart Mostofsky (Kennedy Krieger Institute, Baltimore) for a 3 day visit. A workshop on sensorimotor integration in autism was held in honour of his visit and Stewart gave an invited talk for autism@manchester. Stewart has a great passion for music and is pictured outside the Hacienda apartments.

June 2015: Andreea Mocanu and Lizzie Driscoll complete their work experience in the BEAM lab

As part of a joint venture between the BEAM lab and the Whitworth Art Gallery, two 2nd year Psychology students - Lizzi and Andreea - have been designing some activities to explore the science of perception using an artistic approach. Here is what they say about their experience:

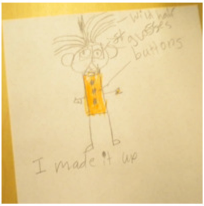
Andreea Mocanu:

"This placement involved working on a project which aims to organise a one-day science masterclass for primary school children at the Whitworth Art Gallery (the newly refurbished building located in Whitworth Park!).

> In a fun and interactive manner, children will be introduced to various aspects of perception, and how our brain can influence this process. Assisted by artists working at the gallery, the children will be able to create their own artwork, rate and rank paintings and objects, be presented with famous visual illusions, and learn that our eyes are just the ?door? towards the intricate, yet fascinating world of perception.
>
> Throughout my placement I had the opportunity to pay frequent visits to the art gallery (we particularly focused on the exhibition of portraits), organise meetings, learn about new areas of research, and collaborate with the primary co-ordinator of the gallery.
>
> At the moment, the project is in its exploratory phase. However, a recent trial workshop conducted by Lizzie has shown encouraging outcomes (even with younger children!)."

Lizzie Driscoll

> "Prior to the masterclass in October, I have run a trial session trying out two key sections of the masterclass with a class of Year 3 children in a primary school, to identify which aspects work well, how long different sections will take, and what needs improving. The two sections tried out were the Draw-A-Scientist Task and an introduction to the ?Uncanny Valley? effect.
>
> During the session, the children carried out the Draw-A-Scientist Task, with the learning objective of demonstrating that anyone can be scientists, not just those who fit into the standard ?Einstein? stereotype. As will be done in the masterclass, they completed two pictures, at the beginning and the end of the session. In between, I demonstrated, using examples of famous scientists and scientists from University, that they do not always fit the standard image. In addition, to introduce the ?Uncanny Valley? effect, we discussed the concepts of creepy and realism, before they worked in groups to plot images of spiders on 2D creepy-realism graphs.
>
> This trial proved very useful for our project, showing us that demonstrating to children how diverse scientists are appears to influence their own perception of scientists, as the children?s second pictures were far less stereotyped. It also showed how quickly even these younger children picked up the idea of plotting images on a graph, which is very promising for our plans for the masterclass, which will hopefully involve a more in-depth introduction to the Uncanny Valley. "



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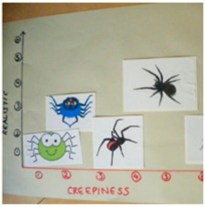


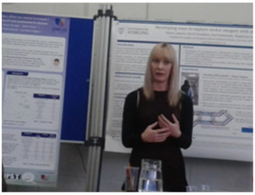
May 2015: Research on Imagery and Observation (RIO) conference

Members of the BEAM lab attended the annual meeting of the RIO group (Research on Imagery and Observation) at the University of Stirling on 14th and 15th May 2015.

The RIO group brings together researchers interested in action observation and motor imagery from cognitive, clinical and sports science backgrounds to share knowledge and promote collaborative working across the different disciplines.

Stacey and Jude presented their research on gesture and imitation in Parkinson?s disease, and Ellen reported the results of project work by students Sophie Trueman and Hannah Marshall on how imitation can be influenced by attention and imagery.

The meeting stimulated interesting discussions on theoretical and practical aspects of imagery and observation, with an emphasis on integrating approaches to research and building collaborations. Highlights included keynote lectures on action observation in rehabilitation and the link between real and imagined movements, as well as presentations on how music can influence movement and how parrots can learn from observing human actions. There was also an opportunity to learn about (and try) some Scottish whiskies!



April 2015: Emma and Dan awarded Welcome Trust funding for a project to increase partnership between the autistic and research communities.

Emma and Dan have been awarded £5000 from the Welcome Trust Institutional Strategic Support Fund to carry out a project called "Building bridges: creating partnerships between autistic and research communities." The project will run from July-Dec 2015, involving members of autism@manchester, together with the support organisation Salfordautism.

April 2015: Emma talks about her research during a Faculty interview.

Read the Tuesday Feature.

January 2015: Lab outing to Lowry theatre adaptation of the 'Curious Incident of the Dog in the Night Time'.

Recently, a contingent of BEAM lab members made it over to a packed Lowry theatre for the adaptation of the 'Curious Incident of the Dog in the Night Time'. The play follows Christopher, a maths genius who appears to have autism spectrum condition. Christopher has difficulties with social interaction, and there are some sensory differences that Christopher experiences. For instance, his dislike of the colour yellow means that he will only eat the pink parts of a Battenberg cake.

After his dad responds with indifference to the murder of a beloved neighbour's dog Christopher is forced to take on the role of detective. Through his investigation Christopher navigates the chaos and deception of the neurotypical (non-autistic world), reflecting on what he learns on the way. This was a highly physical and visual performance with the play taking place inside a giant cube filled with LED lights which allowed for visual representations of Christopher's mental states. We saw the cluttered confusion of 'melt-downs' when Christopher was placed in situations that he found overwhelming and numbers circling his head when he tried to use his special interest in maths to calm himself.

As a neurotypical who has been working with people with autism throughout my PhD I felt the play gave a considerate portrayal of autism spectrum conditions. The audience are presented with both the difficulties that Christopher faces and the great talents he possesses. We are encouraged to think about how we might be more considerate of other people's different ways of being. However, much like other recent portrayals of talented people with autism-like behaviours (Sherlock and The Imitation Game being two examples), it is never explicitly stated that Christopher actually has autism. This was a fantastic adaptation of 'The Curious Incident', but perhaps the theatre production company missed an opportunity to present the general public with a realistic, multidimensional character that has a diagnosis of autism.

January 2015: PhD viva success for Sam

Sam Couth successfully defended his thesis "Investigating the effects of ageing on multisensory integration" Well done Dr Couth!

January 2015: Visits to Parkinson's UK

Jude and Stacey are visiting local branches of Parkinson?s UK to talk about our current research projects. They have recently spoken to members at meetings in Oldham and Bolton, and with more visits at Glossop & Tameside, North Manchester and Trafford planned.

December 2014: Lab Christmas meal 2014 at Umami

November 2014: Parkinson's UK conference

Jude and Stacey attended the Parkinson?s UK Research Conference, which took place on 3rd-4th November in the beautiful setting of the Royal York Hotel.

Stacey gave a talk together with Matthew Sullivan on patient and public involvement in behavioural Parkinson?s research, which was very well received despite being interrupted by a fire alarm test! The talk reflected on Matthew?s involvement in the design of Stacey?s study as a person with Parkinson?s, and highlighted how working with people with Parkinson?s can help us to design more appropriate and feasible studies, as well as improving how we communicate about research. Stacey and Jude also presented posters on their research on non-verbal communication and imitation in Parkinson?s.

Highlights of the conference included:

- The ?Top Ten? research priorities relating to issues for people living with for Parkinson?s, identified through surveys, steering groups and workshops involving volunteers including those affected by Parkinson?s. Priorities included balance and falls, fatigue, sleep, and mild cognitive impairment.
- Technological innovations in Parkinson?s research, such as the use of smartphones and wearable technology for real-time data collection and the development of online databases for large-scale sharing of research data.
- Development of quantitative motor measures as biomarkers of cognitive impairment.

Imitation as a potential therapeutic tool for Parkinson's: Literature review and planned study

October 2014: New widening participation fellow

Daniel Poole takes on role as widening participation fellow for the Faculty of Medical and Health Sciences and the Faculty of Life Sciences, The University of Manchester.
Dan will be supporting the University's widening participation activities for students aged from primary school to sixth form level. He will be responsible for designing workshops and events that will inspire students, and encourage an interest in attending University.

September 2014: Filming starts on autism project

The BEAM lab has teamed up with local storyteller Sean Cooney to develop a motor therapy for children with autism. Emma and Sean spent the day with the University Media centre team, filming Sean telling and acting out popular children?s stories stories. The MIMIT funded project aims to produce early stage demonstration version of the game to be shown to children/adults with autism, their families and clinicians.

August 2014: Emma awarded funds to develop a motor therapy for individuals with autism

Emma has been awarded 24k from MIMIT to begin development of a therapy to improve motor control in individuals with autism. The therapy will use imitation in combination with Microsoft Kinect and involves collaboration with Psychologists, computer scientists, clinicians and software engineers.

July 2014: Poster prize for Stacey Humphries

Stacey was awarded the prize for best poster at The International Society for Gesture Studies, University of California, San Diego.

July 2014: BEAM lab imitation research featured in Parkinson's UK Progress magazine

Please see pg 15 of the Summer 2014 Progress magazine.

July 2014: PhD viva success for Liz

Liz Evans passed the viva for her PhD ?Is there a role for top down factors in automatic imitation??. Well done Liz!

June 2014: Emma is promoted to Senior Lecturer

June 2014: Sam Couth receives presentation award

Sam was awarded a prize for the best talk at the Faculty of Life Sciences post graduate conference. Well done Sam!

May 2014: BEAM lab travels to Autism West Midlands

Dan and Emma participated in the research forum held by the charity Autism West Midlands. Emma discussed her work on motor difficulties in autism while Dan focused on sensory issues experienced by those with autism.

May 2014: Experimental Psychology Society (EPS) award

Sam Couth was awarded the EPS Grindley grant award to cover his attendance at this year's International Multisensory Research Forum, Amsterdam. Well done Sam!

Dec 2013: autism@manchester bid successful

Emma has led a successful application for funds to pump prime autism@manchester. This consists of a group of autism researchers at Manchester (University and NHS), with the aim of promoting and generating multi-discliplinary autism research within Manchester.

Press coverage

Our recent paper in Perception has gained some interest from the press:

Medical Express: http://medicalxpress.com/news/2013-11-prosthetic-viewed-eerie.html

Health Canal: http://www.healthcanal.com/surgery-rehabilitation/44772-prosthetic-hands-viewed-as-eerie-by-the-public-new-study-shows.html

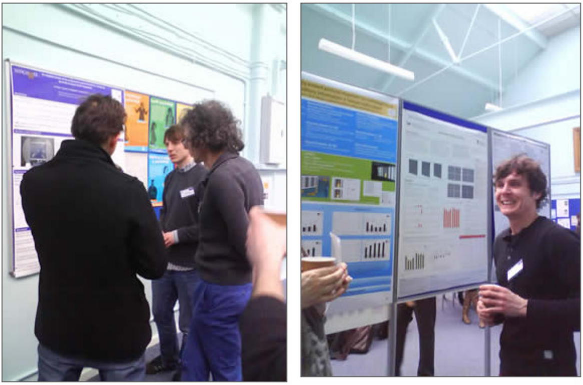
Mancunian Matters: http://mancunianmatters.co.uk/content/111113402-prosthetic-or-robotic-unrealistic-fake-limbs-deemed-eerie-public-manchester-uni-st

ESRC grant award

Ellen and Emma have been awarded a 3 yr grant from the ESRC to study imitation and action observation in Parkinson's Disease

Applied Vision Association Annual Meeting, The University of Manchester, March 2013

Dan and Sam presenting their poster on multi-sensory integration between vision and touch.



BEAM Christmas meal

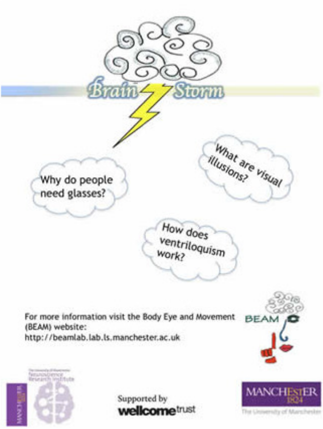
BrainStorm

Here is coverage of our Brainstorm event in the FLS newsletter (pg 10):

FLS newsletter

BrainStorm

30/10/12, The Manchester Museum


Brain Storm
Why do people need glasses?
What are visual illusions?
How does ventriloquism work?
BEAM
Supported by wellcome trust
MANCHESTER 1824 The University of Manchester

For more information visit the Body Eye and Movement (BEAM) website:
http://beamlab.lab.ls.manchester.ac.uk

Over 200 people visited our family event last October. Visitors were taken on an interactive journey, starting with the eye and travelling "through" the brain to understand how vision affects action and other senses such as touch and hearing. Here are some comments and photos.

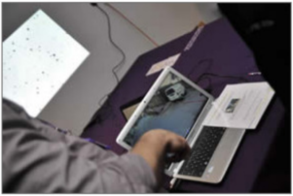
"It was great. Very hands-on. Many thanks"

"It was awesome!"

"I enjoyed looking at the rubber hand"

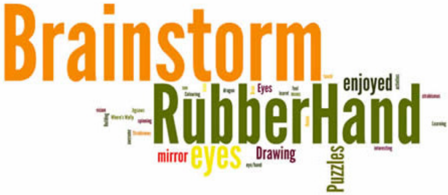
"I enjoyed learning how my eyes work"

"My daughter enjoyed inter-acting with eye/hand tests"



BrainStorm event at Manchester Museum

Here's a word cloud of what visitors thought about our event... More information to follow....



Lab outing at Croma

Well done to Sam, Steve and Briony for passing their first year continuation report! Good luck to Dan next week. Sorry about the photo quality...

International Meeting for Autism Research (IMFAR) 2012, Toronto

http://www.autism-insar.org/imfar-annual-meeting/imfar-2012

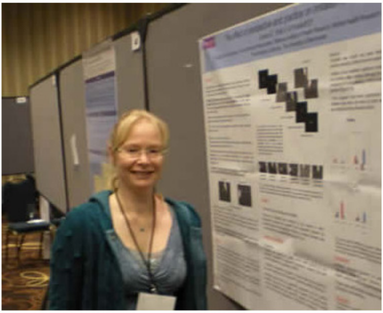
By Emma Gowen

It was my first visit to IMFAR, the largest international conference dedicated to all aspects of autism research and it was well worth the visit to Toronto. The conference was well organised, full of inspirational talks and posters and provided a fantastic opportunity to meet the main players in autism research. Here are some quick snippets of the talks that I attended in between the poster sessions.

On the Thursday I eagerly found the "Cognition and Behaviour" oral session. The Bertone and Mottron groups presented data comparing pitch discrimination with visual spatial frequency discrimination, showing co-occurrence of enhanced perception in approximately one third of the autistic participants (abstract). M. Wallace from the Foss-Feig group gave a nice talk displaying that the size of the McGurk effect negatively correlated with the size of the visual-auditory temporal binding window. This may relate to noisier, less effective integration with a larger binding window (abstract). Finally, talks by Mostofsky and Klinger respectively provided more evidence for greater reliance on proprioception over vision (abstract) and intact automatic imitation (abstract).

On the Friday I managed to catch B. Devlin talking about the genetics of autism. From my very rudimentary understanding of genetics it seems that random mutations are more significant for autism development then inherited genes. I also attended the Brain imaging session on motion perception. C. Robertson from the Baron Cohen group presented evidence for coherent motion deficits only with displays <200ms, proposing that this is linked to poor integration (abstract).

Saturday started early (7.00am!) with a sensory-motor special interest group ran by Justin Williams and Alison Lane. Some of us gave 2 min talks about our work and a new networking website for the group has been created (https://sites.google.com/site/autismsmigs/welcome). I then listened to a series of Electrophysiology talks. Tommerdahl's lab described an extensive series of tactile experiments that link to under-connectivity (abstract). Some of this may be published and they have also done work on ageing so definitely some papers to look up.



TIMELY training School

by Dan Poole

This April I was fortunate enough to spend four days at a conference in mainland Greece. I was attending the TIMELY training school at Aritstotle University, Thessaloniki. This was the second training school organised by TIMELY and was centred on the experience of time in clinical disorders. TIMELY seek to bring researchers together from around the world that work on issues in the broad field of time perception. I attended the school to present a poster on work that I will be conducting, investigating the size of the multisensory temporal binding window in adults with autism.

This was my first conference and it was a fantastic experience. The work presented was fascinating and I met a lot very interesting people that offered different perspectives on my own research. I particularly enjoyed a day of lectures that focused on aspects of time perception that can be distorted in developmental disorders.

The trainers and trainees that attended the school. I'm somewhere towards the centre right.

The KEDA centre at Aristotle University where the training school was based

The new BEAM lab takes shape

By Emma Gowen, April 2012

The refurbishment of our new BEAM lab in the Zochonis building was officially finished in January. Thanks to Andrew, Nick and Sam we managed to sort and pack the various items of equipment inherited from Graham Barnes when he retired. The stash includes a CHRONOS eye tracker and Optotrak motion tracker. Ellen and Andrew "walked" the large screen from the north to south campus (see picture), both ending up with longer arms at the end of the journey. Organising the new lab is still ongoing although Briony has bravely started her experiments in one of cubicles and other then "door key issues" she has reported back positively. When finished, the lab will consist of 4 separate areas with dedicated eye and motion tracking cubicles.