

'Konfirmation systemization', Jon Adams
Systematic Art – Revaluing Autistic Thinking
Wellcome Small Arts Awards – ref 098186/Z/12/Z

Evaluation Report by Jo Fells, September 2013

Executive summary

As artist in residence at Cambridge Research Centre, Jon Adams undertook a series of extended conversations with Professor Simon Baron-Cohen to explore the systemising aspects of his Asperger's. Over a period of nine months Adams and Baron-Cohen had around twenty-five conversations – some formal, others informal and brief.¹ During 14 days at the Autism Research Centre Adams worked with a further thirty scientist and researchers, conducted 28 semi-formal interviews and socialised in the staff room.

This project not only gave Adams a new understanding of his own Asperger's and how his rule-making, systemisation, pattern identification, search for clues and tendency for transformation affect his art, but a wider grasp of how they also impact on his life. Meanwhile Baron-Cohen described the residency as an exceptional opportunity to generate new hypotheses through the unstructured and extended nature of the project. This meant that ideas evolved organically, with each visit to ARC there seemed to be something new for Baron-Cohen and his team to explore in their conversations with Adams. Baron-Cohen was very positive about the benefits of the evolution and co-designing of this research, and how it exemplified the PPI model² of dialogue between researchers and subject, revealing fertile areas for future studies including transformation, documenting detail, unexpectedly strong central coherence, synaesthesia and correlation with scientific, geological and other pattern-recognition talents.

SBC "Working with Jon we can actually see how this talent at detecting detail informs his art, whether we are talking about visual art, music or a combination"... The research focused on "a concept called systemising... It's been a fantastic opportunity to see how this system applies to him and also how this isn't a disability, although it's part of Asperger's, that it actually gives rise to talent."³

"I'm still learning how Adams thinks, but I am impressed at how he takes a way of thinking in one domain (eg geological time) and then translates it to another one (eg a walk through time). It may be that that will actually give us a new way of looking at things."⁴

The project has already reached thousands of artists, psychologists, people with autism or an interest in Asperger's syndrome through Adams' blog and Twitter activity. It has attracted interest from a range of arts and digital organisations who have invited him to exhibit work and speak about the project.

The artistic outputs of this research phase – *Grey* and *Grey 2* – are sound and image video pieces made by Adams in collaboration with film maker Lucas Holzenhaur. These were presented on 14 June 2013 along with talks by Adams and Baron-Cohen at The Arts Catalyst in London and attended by 40 people.

¹ Initially an 11-month project, Konfirmation was extended to August 2013 due to bereavement and ill health of Adams.

² Patient and Public Involvement model of medical research

³ Simon Baron-Cohen filmed interview at ARC, Cambridge 1 August 2013

⁴ http://www.thepsychologist.org.uk/archive/archive_home.cfm?volumeID=26&editionID=223&ArticleID=2246

It is apparent that there is significant potential to reach far larger audiences through further performances and presentations of Adams' artwork both in art environments like Linenhall Gallery, Liscard, science settings possibly Cheltenham and Cambridge Science Festivals, and in other cultural settings like music festivals, museums and libraries, as well as publishing and broadcast possibilities. Several approaches have already been made and details are being discussed.

Evaluation methodology and aims

Confirmation was developed with clear objectives, outputs and outcomes outlined in the project proposal, it is against these that the residency has been monitored and evaluated. This evaluation assesses the extent to which the residency was successful in enabling Adams and Prof Baron-Cohen to explore and understand the artist's systematic thinking.

The main aims of this evaluation are to:

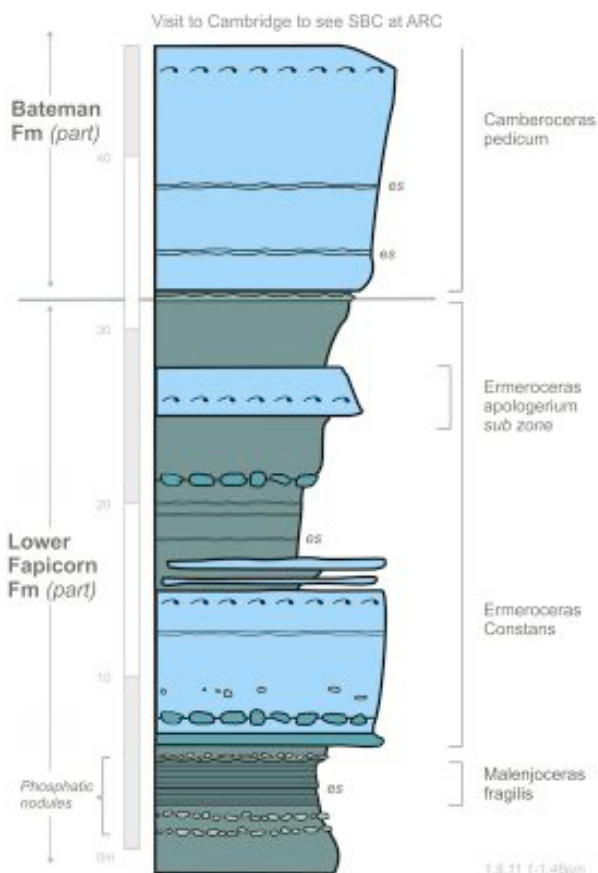
- Capture key aspects of learning from the project from the two main participants – Jon Adams and Simon Baron-Cohen
- Assess the extent to which it has widened awareness of systemisation as a positive autistic characteristic
- Identify potential for further research and development and distribution of Adams' artwork

Evaluation of the project has included semi-structured interview conversations with Jon Adams and Simon Baron-Cohen; listening in on a series of meetings between Adams and neuroscientist researchers, including Baron-Cohen during a visit to Cambridge; attending and discussing *Grey* and *Grey 2* with audiences at the Portsmouth University preview and the London performance/talk; analysis of self-completion questionnaire at performance/talk on 14 June; and blog, online news and social media analysis.

Project background and objectives



Snizz by Ben Connor, Cheltenham Science Festival⁵



Visit to Cambridge to see SBC at ARC

This collaborative research project, ‘Konfirmation’, was prompted when artist Jon Adams and Professor Simon Baron-Cohen of the Autism Research Centre, Cambridge University met at The Arts Catalyst’s ‘Exploring the Autistic Mind’ event at Cheltenham Science Festival in 2011. The project focused on Adams’ personal journey investigating the neuroscience behind his Asperger’s Syndrome and concluded with a presentation to an audience in London with a sonic and visual performance of *Grey* and *Grey 2* and talks by both Adams and Professor Baron-Cohen, director of the centre.

“It’s really ironic that I called the project ‘Konfirmation’ because I had no idea at the beginning of the project that I’d receive a piece of paper that’s written on saying “Jon you’re Asperger’s”. That wasn’t part of the original premise. I called it ‘Konfirmation’ because that’s what you do when you repeat an experiment – input, action, output – let’s try that again, yeah, we’ve confirmed it.”

⁵ Adams met and shared the stage at Cheltenham with Gabriel Hardistry-Miller and Ben Connors and Professor Baron-Cohen. Gabriel, a non-verbal autistic artist died last year, their meeting had a huge impact on Adams who says that no day has gone by during this residency when he hasn’t thought about Gabriel and how autism is different in everyone: it can be a disabling condition and but he now sees his own Asperger’s as the source of his artistic inspiration, as well occasionally socially disabling.

Even without a formal diagnosis at the outset, Adams has a greater self-awareness of his Asperger's (and dyslexia) than many people with autism and until now he has not specifically explored his autism in his work. His talk at Cheltenham Science Festival⁶ revealed a great deal about his understanding of the many positive aspects of his Asperger's and how it led him into studying geology at university and an early career as a commercial illustrator.

Although he wasn't aware of the term 'systemising' Adams now recognises that this was exactly what he has been doing unconsciously all his life with the landscape, geological patterns and architectural layering as well as in some of his artwork.

Adams describes his Asperger's 'deficit' as his inability to systemise people – as he is unable to predict people and their reactions; "I am constantly living by patterns and clues and I live by rules, like the one where I must always carry my bag with me."⁷

Adams is articulate about the 'rules' by which he leads his life, apparently a common practice among people with autism. He explains that his approach to this project was consciously counter to his Asperger's instinct; to recognise that as a research exercise there were to be no fixed rules. He talks about the importance of having lots of 'what ifs' and he made a rule for himself that 'the rules don't have to apply if you find something special', in order to allow himself to respond to the people he met, what they discussed, what he learned and how he reacted. Adams explains that this alone is quite a big step for him creating rules which allowed him to undertake the residency.

Objectives (from Wellcome application) are to:

- To develop a new collaborative relationship between artist Adams, an artist with Asperger's Syndrome, and Professor Simon Baron-Cohen, an expert in autism research
- Enable the artist to explore for the first time his own way of thinking, assisted by an autism expert, to increase his understanding of his syndrome and to inspire his artistic practice
- Involve a scientist working in autism research in the research and development of an art project, giving him opportunities to explore and think about his research in new ways
- Commission a new artwork to be presented as a sound performance from Adams that explores his systematic thinking
- Present the sound performance (with visuals) as a public event, accompanied by talks by the artist and scientist
- Develop an online presentation/website, including video and contextual material
- Raise awareness of autistic people's skills in systematic thinking through the events and outputs
- Stimulate the public's interest in autism research and challenge the perception of autism as a 'pathology' or 'tragedy'

⁶ http://www.artscatalyst.org/experiencelearning/detail/alternative_ways_of_thinking/

⁷ Adams describing his patterns and rules to Louise Carpenter, *The Asperger's effect*, Sunday Times Magazine, 9 Feb 2013

The first phase of the project (Feb 2011 to Aug 2013), was expected to involve 35 people directly in the project (artist, collaborators, staff of the Autism Research Centre), and to reach up to 1000 as audience in the initial presentation of the sound performance and another 2000 for the online video presentation and website.



an-abama, '1 summer performance' (staged photograph), 17 May 2014. Photo: Ian Adams.

a 101 (18 May 2014)
 1 system: therefore i am
 Portsmouth May 17th

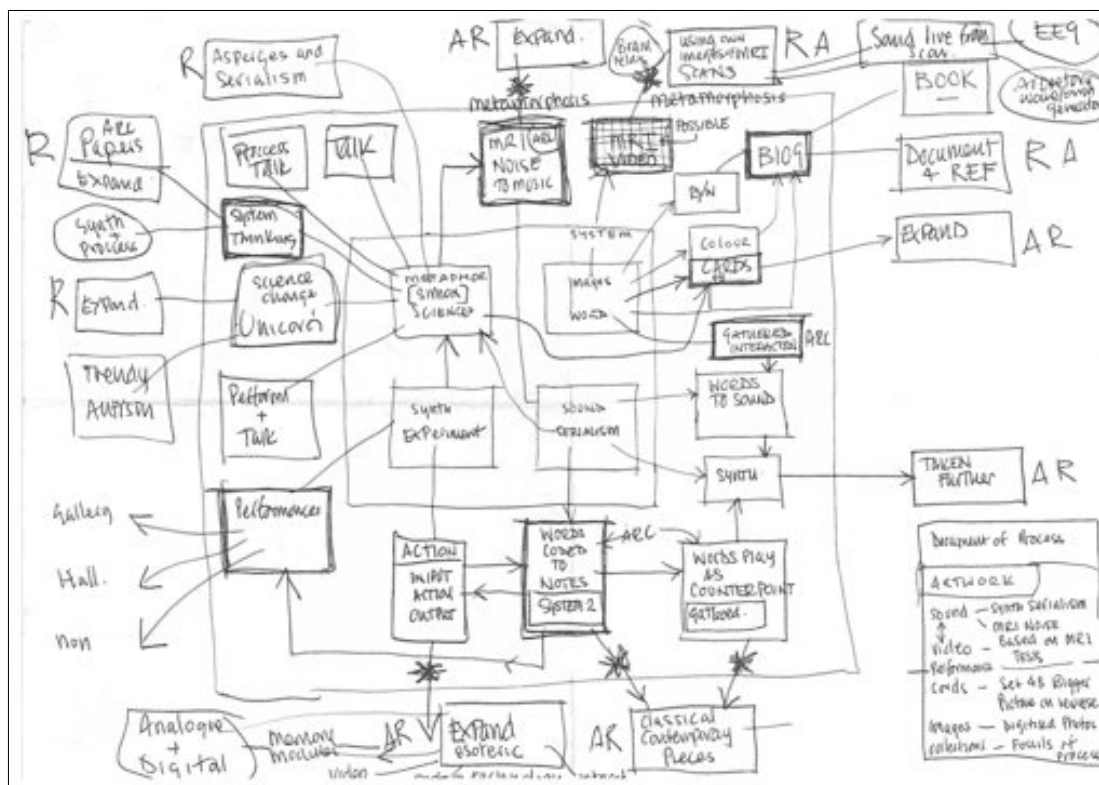
17 days

Waste
 early
 flow
 streams of
 collection
 waste error
 Membrane and glass
 like empty
 wrappers blown
 upon a wall walked
 paragraphs between
 bordering binary landfills
 of moments ready to slide at
 any minor movement pulling off
 any retreat that may be possible at
 all

Andly
 spend time answering
 spend time shouting
 spend time thinking
 spend time waiting
 spend time crying
 a - spend time alone
 to - spend time
 suspend time

A research residency

At the outset, Adams was conscious of the need to overcome several of his Asperger's tendencies – not least starting a project without a clear idea of the direction it would take. He illustrated this sense of 'possibilities' diagrammatically.



JA "I didn't want to come here and think I'm going to come here and do this, this, this and this. I wanted to discover things. I had absolutely no idea about MRI before I came. And I found out about it and listened to it and I thought that's what I'm going to use as the input for the music and it kind of 'tasted' right. It felt right."⁸

In addition, as a person with Asperger's he found the project a challenge since it required him to stay in an unfamiliar place, the Cambridge hotel; "first time there so hoping it's OK – aspergers can be a tough task master for 'safe spaces'"⁹ and "... I had to talk to people... I had to initiate conversations, which is hard for someone with Asperger's, but that was the "rule" I set when I came and to be honest I've enjoyed that, and I've learnt tons."¹⁰

Adams made a total of seven trips to Cambridge between 16 March 2012 and 20 August 2013 (16 March, 8 – 10 October, 24 – 26 October, 22-25 January 2013, 8-10 April, 1 August 2013, 20 August). His active blog and tweeting spawned several additional public talks and presentations which had not been anticipated at the outset.

AXNS Collective, 26 March 2013 exhibition and talk at O3 Gallery, Oxford as part of 'Affecting Perception' an Art & Neuroscience series supported by the Department of

⁸ Jon Adams video interview 1 August 2013 at ARC

⁹ a-n blog 25 October 2012 http://www.a-n.co.uk/artists_talking/projects/single/2266871/0/1/asc

¹⁰ Jon Adams video interview 1 August 2013 at ARC

Experimental Psychology at the University of Oxford. The organisers of AXNS contacted Adams after following his tweets about Konfirmation and invited him to exhibit and give a talk along with Baron-Cohen. It was attended by 60 people and watched on live-stream by seven and filmed for online viewing.¹¹ This also led to the Oxford Department of Experimental Psychology requesting the print exhibited for Affecting Perception, which is now hanging in the department.

Open Circuit, 1 May 2013 – Adams applied for and was accepted for this Mozilla ‘digital ninja’ which brought artists with disabilities into a match-making innovation event at Mozilla HQ in London. He used MRI-based music from Konfirmation in his presentation to illustrate his use of digital techniques in his sound making and created a picture from the pattern of tiles in the gents loo.¹²

Short Circuit, 8-9 June 2013 at Lighthouse Brighton. At this Mozilla digital hacker day Adams presented music he had created from hearing aid feedback using techniques he had developed through Konfirmation.

The Beautiful Brain, 16-20 June 2013, Seattle, USA, exhibition to coincide with the Organisation of Human Brain Mapping Conference with the Neuro Bureau. Following Twitter conversation Adams was one of 12 international artists invited to exhibit *Image 228*¹³ from Konfirmation in their neurology imaging gallery show. (Audience 3000.)

Acknowledging Adams’s expertise he was invited by **Portsmouth University** to develop an employability readiness project for students with autism in May/June 2013. Adams created a scheme to help the social interaction of these students encouraging them to work in groups music making using digital technology based on learnings from his ARC residency.

‘Konfirmation’, 14 June 2013 public performance presentation of *Grey* and *Grey 2* created during the residency along with talks about Konfirmation by Adams and Baron-Cohen at The Arts Catalyst, Clerkenwell, London. (Audience on the night 40 plus 29 watching livestream and a further 40 of online video since.)

Accentuate symposium, 5 July 2013, about disabled artists a year on from the Paralympic Games, in which Adams spoke about Konfirmation leading from his ‘Look About’ commission.¹⁴

Paintings in hospitals, 28 August 2013, Adams invited by Baron-Cohen to advise on the kinds of art people with autism might find therapeutic and calming for the new ARC, Cambridge during a visit by Royal College of Arts representatives from the Paintings in Hospital charity.¹⁵

¹¹ <http://axnscollective.org/update-autism-art-affecting-perception-seminar/>

¹² <http://shortcircuit.org.uk/sounds-like-Adams-Adams/>

¹³ <http://thebeautifulbrain.com/2013/07/subjective-resonance-imaging/>

¹⁴ <http://disabilityresearchforum.wordpress.com/2013/06/27/the-accentuate-symposium-has-there-been-a-cultural-shift-a-year-on-from-the-paralympic-games/>

¹⁵ <http://www.paintingsinhospitals.org.uk/>

Other outputs

1. Artist's blog http://www.a-n.co.uk/artists_talking/projects/single/2266871
2. Twitter engagement <https://Twitter.com/soundcube>
3. Grey and Grey 2 <vimeo.com/68994017> and <vimeo.com/68990375>
4. Sound works – Field of Fragments <https://soundcloud.com/fieldoffragments>
5. Images and postcards

Artist's Blog

http://www.a-n.co.uk/artists_talking/projects/single/2266871

Adams started documenting the project following his first visit to Cambridge ARC in October 2011. He recorded thoughts, ideas, poems and images almost daily.

Early artistic desire was beaten out of me at school – instead a turning to all science inspired by my Father – uncovering a natural 'understanding' for systemizing – have never heard the word referred to until 2011 reading about 'aspergers' – knew one thing though early on – people were too unpredictable to 'systemize' satisfactorily – fingers burn still – baffling

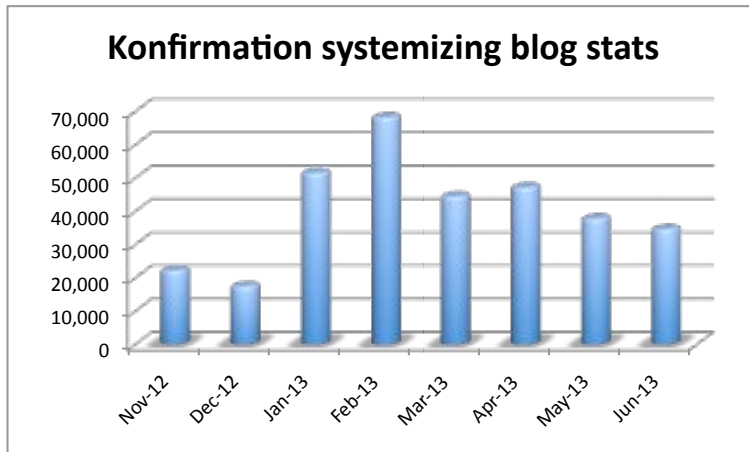
turn to pencil instead.

Desired systems – depopulated – honest – untouched – learning to trust solitary systems and the patterns attracted me – why – actions – learning now – it makes sense.

seek
Patterns
contained
in
ordinary
things

seat coverings,
crumpet tops,
pavement cracks,
waves breaching,
carpets
+
wooden floors,
stones,
landscapes,
sounds,
notes of book

Adams' blog has consistently been in the top 10 hosted by a-n, their bespoke algorithm, combining the number of page views with the average time viewers spent on that page, indicates that over the last eight months Adams' blog was being viewed for over 276,000 minutes (or 4600 hours).



The blog reveals a lot about how as a person with Asperger's Adams' life involves rules, patterns, distractions and systems to help him cope with the unpredictability of other people in his days. For example 1 May 2013 when travelling to speak at the Mozilla Open Circuit event in London:

98 [3 May 2013]

'A morning of Pi and Popcorn'

Portsmouth - London - Portsmouth May 1st

Nor officially a project day

May First list

1. Alarm wakes me for once at 6:15
2. Repack suitcase again - just to make sure
3. I hate our bathroom sink plug hole fitting - wrong
4. Sun
5. Walk to station successfully in shadow 55% Sun 45%
5. Familiar seat - usual single so no one sits next to me
6. Distracted by man who sniffs every 12-15 seconds - on at Haslemere off at Guildford
7. Arrive at Waterloo in the Sun after fast route from Guildford - station partly empty
8. Walk via Southbank and Charring Cross - Thames in colour with strong flow
9. Struck by FAB patterns in the Serpentine in the Lobby of 101 (Mozilla HQ) - some pyrite polished in floor tiles too - cant stop to examine or photograph - regrets



[enlarge]
Jon Adams, 'no overall control', manipulated photograph, 3rd may 2013. Photo: Jon Adams.

The blog also reveals the way he developed his artwork while exploring his systematic thinking:

"For some sound - Music derived from MRI machine noise and notes derived from people speaking about the passion they have for what they do (Syllable notes and spacings)"

“Lots of analogy confirmations for the modular synth within my conversation - would make good focus for 'public engagement part' - wiring, triggers, gate, noise, note, switched on etc - as multiple examples of a systems - whole view and detail - 'lecture based performance as well as pure sound work and analogy to aspergers being different in everyone”

“I have finally cracked the 'system' for deriving values from key words to provide the notes, timings and sequences (Serialism 8 tone system http://en.wikipedia.org/wiki/Serial_music using Octatonic scales http://en.wikipedia.org/wiki/Octatonic_scale) and have made some sound from the MRI recordings. Systemised complication!!!”

Audiences

Target audiences for the project were described in the proposal as:

- contemporary arts attenders, particularly for sound art
- disability arts audiences, particularly with autism/Asperger's syndrome
- artists
- disabled artists, particularly with autism/Asperger's syndrome
- people with autism
- families and friends of people with autism
- general public interested in the subject area
- scientists, doctors and researchers interested in autism

Adams recorded direct engagement with 33 people at ARC:

- 11 PhD researchers
- 10 psychologists
- 4 other scientists
- 4 MRI team
- 4 other members of staff
- 4 neuroscientists at Portsmouth
- 4 experimental psychologists at Oxford
- 4 arts professionals at AXNS Oxford, plus one in Seattle and another Lisburn.

Through the blog and Twitter the project reached hundreds more people. For example with Twitter, Adams' @soundcube now has 1439 followers. This has risen by at least 400 expressly because of the Konfirmation project which has seen Adams' tweets followed by neurologists, psychologists and people with Asperger's in the UK, USA and Australia including @BirkbeckScience @autismnetwork @anathepirana who describes herself as "Autistic, Dyscalculat, Myoclonic".

The AXNS Oxford event was attended by 60 people, 7 via livestream and further views of the video made. The Q&A session and informal observation revealed this audience to consist of a mix of psychologists, artists, neuroscientists and people with autism or a family member with autism. (See Audience findings, page X for comments.) The Beautiful Brain event in Seattle attracted 3000, mostly neuroscientists, health professionals and people with a considerable interest in autism and Asperger's.

The performance talk in London was attended by 40 in person, 29 by livestream and videos viewed by 40 in the subsequent two months. The on-site audience were asked to complete a questionnaire, of the 40 attending, just 15 opted to do so. Of these, all expressed an interest in contemporary art and sound art, while 11 described themselves as interested in autism and Asperger's syndrome and a further two with family members with autism. Four said they earned their living as artists, one as an artist with autism. Three were arts administrators, three academics and two health professionals. Five had a medical or scientific interest in the event. The majority of those attending were new to The Arts Catalyst, just three of 15 had ever come to an exhibition, talk or event before. It should be noted that the questionnaire was completed by fewer than half those attending. (See Audience findings, page 29 for comments.)

Outcomes

Both Adams and Baron-Cohen assert the success of the collaboration in providing the artist with the opportunity to explore for the first time, his own way of thinking. With the assistance of autism experts at ARC, Adams substantially increased his understanding of his syndrome and how it inspires his artistic practice.

SYSTEMISING

Adams describes one of the fundamental changes as his appreciation of 'systemising'. (Quotes in the following are from interviews recorded by Adams and Baron-Cohen at ARC, Cambridge on 1 August 2013 unless otherwise indicated.)

Jon Adams (JA) *"When I first came here, I had a long conversation with Simon and we spoke about how we could work together. I learned a lot about my Asperger's that day and it was really to look at systemising. Systemising was new. I only heard that word when Simon was on stage at Cheltenham with me. Never heard that word before. Never realised how it really fitted in with what I do both as a person with Asperger's but also with my artwork too. The way I process things, the way I work. I was really intrigued and I wanted to know more."*

Simon Baron-Cohen (SBC) *"People with autism seem to like... information that is systematic probably because it follows rules, because if you perform an operation you should get the same output every time. The more systematic something is the more attractive for people with autism, in our experience."*

JA *"We need a metaphor for systemising for someone with Asperger's. Now there are lots of things we could have chosen, but the first thing that came into my mind especially the words: 'Input – Action – Output'. You put a sound in, you do something with it, you get something out. It's exactly the metaphor for how I make music with granular synthesis. I put something in there. I chop it into millions of pieces, turn it into a cloud and walk through it. There's the output."*

PATTERNS

Baron-Cohen explains that pattern ability is well known in autism theory, however the focus of most studies has been on the way in which people with autism impose pattern for example by children lining up toys or working with Lego.¹⁶ The residency revealed how Adams uses patterns as the source material for his systemising art practice.

SBC *"Imagine a mind that can't help spotting patterns – that's Adams' mind. Now imagine what you do with such a mind. You could either be overwhelmed (which he sometimes is), or you could decide to use that talent to explain to the world: "I am different". I'm delighted Adams is choosing this educational path."¹⁷*

Adams increased his understanding of how as a person with Asperger's, his life has been dominated by patterns. He describes how he has lost his 'innocence' about patterns and

¹⁶ Frith, Uta (1968). [Pattern detection in normal and autistic children](#) (PhD thesis). Institute of Psychiatry, London.

¹⁷ www.thepsychologist.org.uk/archive/archive_home.cfm?volumeID=26&editionID=223&ArticleID=2246

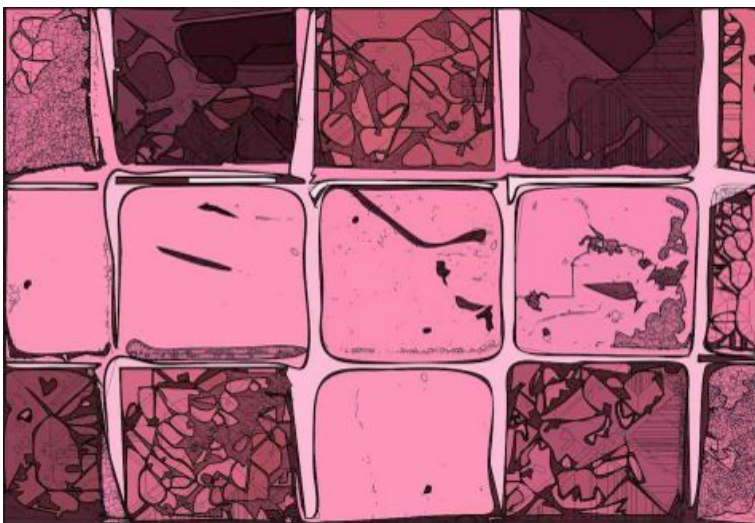
now recognises them as a positive quality of his Asperger's. Previously unaware of being distracted by patterns and making art out of them unconsciously, he now sees that earlier work like his Southern Trains map – '041208' was the output of his Asperger's attention to patterns in his environment.

JA *"I'm over-stimulated by the world... I just find patterns in anything and everything but it's a delight to do so. It's an urge not to switch it off. Seeing patterns is the easy bit, patterns in what people say or correlations in things, it's like a bright light. I wouldn't be without it. My whole life is just based on finding patterns.... It's almost indescribable. It's part of me. If asked: "how do you find patterns", well I've no idea, it just happens, I just see them... I can hear them and they are huge distractions."*

JA *"I do know that patterns are really important. The less I can see patterns the more scared I get. So they are integral to me, part of my being. I don't often find patterns in people."*

It was a revelation to Adams, brought about by the project, that he could re-frame his thoughts on pattern-spotting from being an Asperger's 'deficit' to recognising it as a 'talent'.

JA *"I can see patterns that other people can't... during my time here I've come to learn so much more about the way I react, what I'm good at, what I'm not good at, and that was one of them. It's not a deficit, it's just I'm good at something else. I'm good at pattern-finding in the everyday."*



Jon Adams, '3.32.256.768' (3 rows - 32 notes per sequence - 8x8 as a root for 256 and 768)

Now aware of the impact of pattern in his life and as an artist he is consciously making art out of the 'distraction' of patterns using systemisation – hotel bathroom tiles (above). Through this fresh appreciation Adams has also found a new tolerance of environmental patterns like the hum of the magnetic fire door catch in his Cambridge hotel room. He sees this knowledge as sharpening of his senses and as an opportunity to really develop his art practice.

JA *"Visual patterns – they are just there, they just shout at me. They don't seem outlined like you see it on TV... it's just there in a physical sense, a presence. If I try and ignore it, it causes*

problems. It's just happened all my life and all my life I've been distracted by it. At school I would look for patterns on the desk and then get told off for ignoring what's going on in the lesson. It's natural, I don't want to know how I do it in case I spoil it."

Adams takes photographs of new environments, the tiles, table top etc and looks at the detail he has gathered later as part of his continuous collection of raw material, alongside his note taking. Baron-Cohen found it interesting that Adams then plays with scale – from big to small – and hypothesises that this might help ARC scientists better understand patterns and structure in people with autism since pattern stays the same even when enlarged, while the detail is enhanced and made richer. Baron-Cohen draws a parallel between this and his research. In talking to someone like Adams scientists find more detail, just like enlarging the image reveals richer detail.

For Baron-Cohen the residency's extended conversations have given rise to new ideas for future research to help ARC understand people with autism. For example how Asperger's pattern recording, extracting and decoding takes in more detail than he described in the systemising performance tests he published in 2003.¹⁸ He hopes that through further study and wider understanding of these systemising processes, people with autism will become more widely recognised for their valuable societal contributions. This insight has also helped the ARC researchers devise hypotheses about how to overcome some of the disabling social manifestations of autism, which they will go on to test.

TRANSFORMATION

The project has revealed to Adams his tendency to take inspiration from his heightened awareness of patterns in the environment. The footage he selected for *Grey 2* is a visual example of such patterns, while the audio for both *Grey* and *Grey 2* demonstrate how his art practice often involves taking environmental 'clues', breaking them up into minute component parts and transforming them to create his artwork.

JA *"I'm good at changing things, transforming things. It's like having a set of Lego and building something from it, taking things apart.. finding a pattern... and then turning it into something that's completely on its head."*

Adams describes how the direct interaction with the Cambridge neuroscientists led him to see that his fear of the blank page is not a deficit, but simply that his brain is wired for heightened observation and metamorphosis, and that he should not be ashamed of his need for external stimulus for his artwork. He considers the level of awareness of external stimulus in 'most people' to be about 40% while he rates his awareness to be off the end of the spectrum and talks about this being a talent from Asperger's that he as an artist would not want to be living without.

¹⁸ Baron-Cohen, S (2003) [The Essential Difference](#): men, women and the extreme male brain. Penguin/Basic Books.



Jon Adams, 'Pathway 253', Manipulated photograph, 10th October 2012. Photo: Jon Adams. White line - cycle pathway – disconformity

JA *“I find patterns - with input, action, output, whether that’s music or I’m taking a photograph to alter. Like on the first day here I found some wonderful patterns in the faulty white line painted for the cycle lane. And I thought, there’s my input. I’ll put that into the computer; I’ll do some change, and what I get output is completely different.”*

Baron-Cohen thought perhaps the project might have been better called ‘Transformation’ rather than Konfirmation since Adams articulated extremely clearly, not only how he saw patterns everywhere, but also how this was intrinsic to his creative practice – transforming things. Adams calls the sounds, images and patterns he gathers and then modifies, ‘clues’, which Baron-Cohen considered quite a useful metaphor as Adams’ clarity describing what he finds easy and what he struggles with very informative, they are themselves clues which have the possibility to help the understanding of autistic children and their need for something to transform rather than to be given a blank page in school. This could help shape improvements to the ways children with autism are taught and learn.

JA *“At school when I would sit there staring at the blank page for ages, I thought it was a creative deficit.”*

Understanding Adams’ transforming practice has led Baron-Cohen to consider how people with autism, who have a known need for structure, are often disadvantaged by the way tasks are presented to them, in particular the way in which Adams describes the intimidation of the blank page. Their conversations have revealed to both artist and scientist a new appreciation that Adams’ creativity is an extension of this desire for structure and systemisation. Baron-Cohen suggests this could influence how teachers could present tasks to children. Rather than asking a child to draw or write an account of what they did on holiday, they could be given a starting point – taking the bus tickets or stones or something they collected and transforming that material or ‘clue’ into the inspiration for a picture or written account. This is another area Baron-Cohen sees as a vein for further investigation.

KONFIRMATION - Grey and Grey 2

Both Adams and Baron-Cohen recognise the inspiration for *Grey* and *Grey 2* in systemisation and the aptness of synthesiser as metaphor (with each module a tiny system). Adams also incorporated patterns of eight letter words, colour and tones from the bathroom tiles, also in series of eight, and MRI sounds he found during his visits to ARC into his composition.

SBC *“Taking one sound source performing an operation on it to talk about systemising and converting it from one kind of sound into musical notation and into musical notes and creating really lovely music.”*

JA *“The synthesiser was purely there to experiment with sounds. Now I needed ‘clues’ to find those sounds and I also needed clues to work out the notes I was going to play. While I was here talking to a few people I noticed patterns in some of the words; a lot of the words were eight letters long - Oxytocin, Asperger. So as part of one the systems I was working out, I got people to write down words and I almost sat down and worked out a code, a key, turning them into note values. I’d decided to work with eight notes not twelve and assign a note value to each of the letters. But I did it in such a ways that it wasn’t obvious and in that way, I worked out sequences of eight notes for each word and then I also did some mathematics on them where I looked at inversions. I’m not a musician and I find looking at hand written music very difficult, but if I can work in numbers and grids, so I worked out grids for each word with inversions and retrograde inversions and then I used those sequences, played on a sequencer.”*



JA *“I didn’t want to make the notes up myself. I didn’t want to make an idealised song that described how I was here sitting at a piano, I wanted to take something ... I wanted to play “asperger” against “autism” or “oxytocin” against ... some of the other hormones and see what they played like... put one into the note value and one into the filter value.”*

JA *“I didn’t want to do an impression, like with the MRI sound, I didn’t want to make a sound that sounded like something.... I wanted to take things and then transform them. Take words. Take my cues from words. Almost roll a dice. You know it’s not really traditional for someone with Asperger’s to introduce chaos as a rule, but as long as it’s a rule – it’s fine.”*

JA *“I think that pattern that occurs in ‘Grey’ in the visuals is really nice, and the sound too. The sound where it’s made from a metamorphosed MRI scan noise. I’ve taken noise, turned it into thousands of small pieces and reassembled it.”*

Their collaboration also gave Baron-Cohen an opportunity to look at his research and ideas on systemisation through a new prism, that of the creative individual.

SBC *“It’s not just something that’s enjoyable as a piece of art, but it’s fascinating to hear about the process and what was great about that London performance was that Jon was able to describe the process.”*

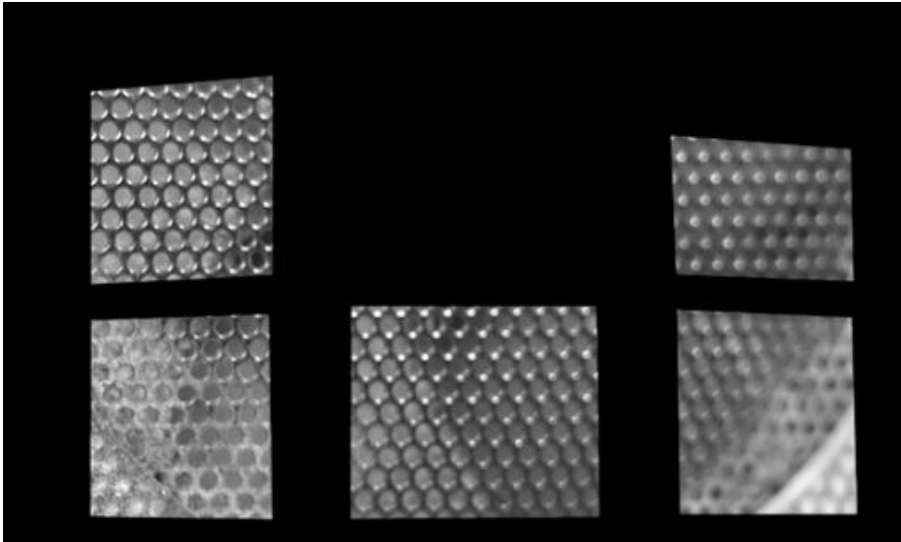
SBC *“What it felt like was that you were looking through the eyes of someone with autism at what’s catching their attention – and often it’s moving water and close up detail of rocks or sand or trees or stone, really where you see the texture, the detail. All very beautifully moving at a pace where nothing’s rushed, you can enjoy the images and then it’s happening alongside or overlaid with the music that came from the sounds of the brain scan and the MRI scanner.”*

SBC *“The performance in London was, I think, very well received. I heard a lot of comments from people in the audience really highlighting the originality of it. As an experience of watching the film it’s actually very tranquil, very peaceful. It moves at a pace that is very enjoyable.”*

Adams talks about how some of the shots in the film, the tide, the pace, express something he struggles to say in words. It’s *about* what it is like to see the world with Asperger’s without describing it.

JA *“There’s a lot of depth behind the video of ‘Grey’, there were no definite artefacts when we started the project. I wasn’t going to come along and make a music video, it was more about the process of getting to this point, about understanding and encapsulating what I was learning from the neuroscientists and mixing that up with how I felt and my understanding and my learning of Asperger’s.”*

Adams’ artwork plays with perceptions of the hidden, seeking of patterns that go unnoticed by many revealing his naturally systematic thinking. Baron-Cohen identifies this inclination and ability to uncover systems within everyday interactions and landscapes as very important. Like a fisherman with Asperger’s able to detect what’s happening below the water’s surface, Adams, a geologist by training, has an ability to see beyond the surface at what has given rise to geological landscapes and can make inferences from this. Baron-Cohen identifies this seeing of the hidden through recognising patterns as a talent, something that the ‘typical’ person might have to learn, but which is an instinctive Asperger’s talent.



Grey (still), Jon Adams and Lucas Holzenhaur¹⁹

JA *“Grey is not a typical product of Asperger’s thinking but may be a reasonably good example, there’s a lot hidden within the name, there’s some puns there about black and white thinking and not thinking in grey. There is the neurological term: grey matter. But in the process of making the video and sound work there’s a lot hidden, there’s a lot of process that’s very Aspergie of taking something like an MRI sound and turning that into music that’s listenable to and using images that describe detail and systemising and taking things apart and looking closely, but also seeing the bigger picture. There’s a lot of analogy in there. I’d like people just to watch the video and think; “that’s a really good video, I like the sound”, without having to know what’s behind it. But if people want to know the real story behind it and how expansive it is and how it’s a true metaphor, even if it’s been done by accident, then that’s really good.”*

JA *“There is a bit of a pun in the word ‘Grey’, because as a person with Asperger’s I only really see things in black and white, so ‘50 Shades of Grey’ is a bit of a lark to me, or ‘that’s a Grey matter’, well, there’s another in-joke ‘Grey matter’.”*

JA *“I make work for me. I made 25 years of work for other people. I now make work for me. If people like it that’s good, if they don’t like it that’s great, if they ignore it - I have a difficulty with that. But what I hope to do is that other people will recognise something of them, the common humanity of any piece of work and they’ll think “Yeah. I can be part of that. Like making flags or doing other bits. So to do a lot of social engaged work as a person with Asperger’s is a bit strange. I like watching people’s reactions to some of the things I do, especially if I leave something or put something controversial up, I want to know what people’s responses are. I can’t systemise them. I can’t tell what they are thinking. But I like puzzling people, I like creating a reaction for me that’s good.”*

JA *“Aspergers can be very playful. Aspergers can be very naughty. You know it’s not that serious.... I don’t mean in a bad sense. Taking things literally and reversing it can be great fun because very often people don’t think literally and they regard that as a deficit within us*

¹⁹ <https://vimeo.com/68994017>

[Aspergers], but it's not. It can be very funny. Don't get a person with Asperger's to tell you a joke though."

THE BIGGER PICTURE

Adams is aware that in traditional Asperger's theory of weak central coherence his interest should be just on the individual scale detail. He admits to being tempted to do this, but he wanted to wire the synthesisers together, extending the systemisation metaphor creating a more complex system – a bigger picture – knowing there will be thousands of different permutations to how that wiring up could work.

JA *"I looked into what systems were and I thought, well a synthesiser is a system, especially one of the old fashioned ones where you have to build it yourself and you have to fit modules together. Then you have to wire it up. And it's also a bit unique in another respect too. Traditionally I'm supposed to get lost in the detail and not see the bigger picture. Now that doesn't work for me. I do, I do everything with reference to either. I either look at the bigger picture and think of detail or I look at detail and think where does that fit in?"*

JA *"I thought here's a perfect way of making people understand. I should get lost in each individual module, how it works and I shouldn't know how to wire the whole thing up so it will make a sound. So if I can do both, it's something special. And I said that, not at the time, but I thought about that on the way home and then sort of quizzed Simon afterwards and he was quite delighted. Because it's a metaphor for the way I think, which isn't the traditional Asperger's deficit theory."*

During an early conversation Baron-Cohen described Adams as a unicorn, the one example it takes to refute a theory. He believes that Adam's ability to see the bigger picture and create a coherent outcome from his transformation of pattern detail into artworks challenges the notion that people with Asperger's have weak central coherence.

SBC *"Adams' work is a neat example of how it is not absolute that people with Asperger's lack central coherence. Konfirmation illustrates this well; Adams is able to achieve a coherent outcome in both his music and visual aspects of creating a system with synthesisers. His work really does hang together as a coherent whole, and it is a system that challenges that notion of weak central coherence, otherwise he would have got stuck on the wiring or the note creation and the whole simply wouldn't work."*

Adams was thrilled about this revelation and commented on it in his blog: *"You only need one unicorn to prove their existence."*²⁰

SBC *"People with autism have a preference for detail over the bigger picture, and have a talent in detecting small detail that other people might miss. I guess that working with Jon really helped us to see how this comes out in one particular person, otherwise as psychologists and neuroscientists we tend to apply standardised tests, which we apply to a whole group of people, but this misses some of the richness of individual experience."*²¹

²⁰ Blog post # 8 [27 October 2012]

²¹ S B-C 1 August ibid

Adams' ability to see the bigger picture is a starting point for future ARC research explained Baron-Cohen. He would like to take this idea challenging the notion of weak central coherence further by investigating the theory with larger study groups in future.

JA *"it shows a unique way of thinking too, which I think we are going to explore further. Because it's quite unique that I can see the bigger picture and the detail – the forest, the wood, the insects and how they all meld together and don't just get lost in watching the insect walk along the edge of one leaf."*

The irony of their video interviews taking place in the orchard at ARC not lost on Adams – the accidental metaphor of root and branch seeing the wood for the trees – all comes back to the 'bigger picture'.

AWARENESS

Adams' residency blog has provided commentary in words, poems and pictures, about what he has learned about his own Asperger's. By making this public and using social media to reach out to others with an interest in autism and Asperger's, he has already engaged with thousands of people challenging notions of social disability and sharing ideas about the hidden talents of pattern recognition and how he uses systemising transformations in his artistic practice.

JA *"For me it's a gift, it's a talent, and sometimes that's very hard to get across to people. You know, people only see Asperger's or autism as a very negative thing and the more that this work can do to ... accidentally let's say, change people's opinion, and it certainly has done on Twitter, certainly has done on Facebook just by talking about what I'm doing... you change people's minds by example and I'm very open about negative side, the way it affects me, but I'm also very open about the positive side... Through the blog too."*

JA *"The work isn't specifically about Asperger's, it is about not about disability, it is not a piece of 'disability art' in the traditional sense. It's a piece of work. I'm an artist first and I'm a person with Asperger's second, and I make work how I feel it should be and although part of the project was to present a very positive view of Asperger's I didn't want to make a piece of work that was specifically about Asperger's. I didn't want to be blatant, I wanted to show the subtlety and the hidden-ness and the layers. I wanted people to enquire: "why have you done that?" and it turns out that people like Simon can read it as being very typically Asperger's and I wanted to enable the ordinary person in the street to understand that subtlety too. You know: "why is it in black and white?". I wanted people to ask questions about it. I don't want to present a piece of work that's fully open and understandable to someone. If someone's going to change their mind that all a person with Asperger's is, is a freak who sits in his bedroom all day and doesn't talk to people and hacks, is a very negative view. I wanted to do that by example. I wanted to say this is the way I see things."*

Adams considers how his work may help change negative perceptions of autism and Asperger's.

JA *"I'd hate for someone to turn round and say well you're not [Asperger's] because you can do this. But by the very act of people questioning that I'm Asperger's means that they are*

wrong about what they think people with Asperger's can and can't do, so I'm almost changing their opinion. 'I never thought people with Asperger's could do that sort of thing.' Yeah we can, we can surprise you."

JA *"Not all people with Asperger's work. It's sometimes so hard dealing with people that you just cannot work. People get in the way, people throw up all sorts of problems that you cannot systemise and that can totally confuse you and upset you and take you away from what you are doing and I wanted to add a little bit of serenity, a little bit of calmness into that view of Asperger's too."*

JA *"It's not a piece of propaganda. It's a piece to change people's opinions but they have to want to have their opinions changed too. So the wider it gets shown...if parents can understand their kids a bit better through the way they've seen me do the project or whatever I've written in the blog, then that has to be great. Just a snippet of incite and maybe the teacher won't present a blank piece of paper or won't be disappointed when the child doesn't do anything on it, it's as simple as that. A couple of kind words letting someone do their own thing. It can be really simple."*



Jon Adams, 'Konfirm', graphic, 16th June 2013. Photo: Jon Adams.²²

²² blog post # 121 [16 June 2013]

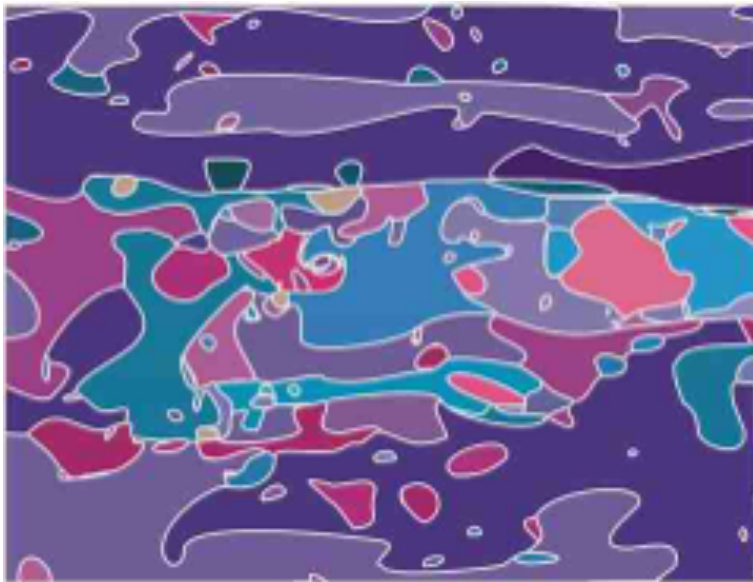
Impact on artistic practice

Adams describes the outcomes from Konfirmation as transformational in a number of aspects of his personal and professional life. He explains that fundamental to his changed artistic practice is a greater awareness aspects of his Asperger's is having on his way of seeing, processing and thinking. In addition, there have been some significant changes to Adams' work that he ascribes to the residency.

COLOUR

Adams describes how colour no longer holds fear for him and the blog artworks illustrate how he has embraced the use of colour extensively during the residency.

JA *"I never used to work in colour. I always had difficulty with colour, but I have been using photographs and manipulating them in the computer and then using the colours I've seen around the centre here, using the colours I've seen like the tiles or the walls or the colours out here, the trees."*



'Clerkenwell 1:37', Manipulated photograph, 1st November 2012. Photo: Jon Adams.

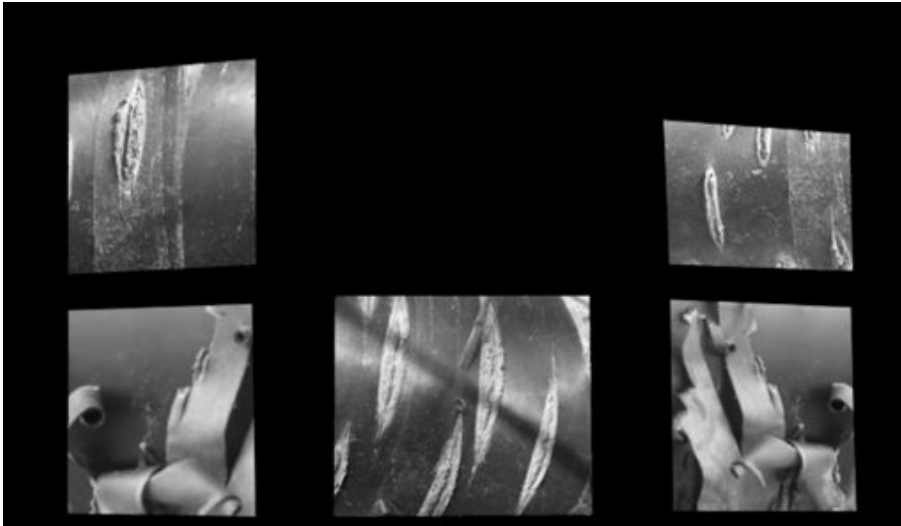
JA blog *"Spend morning in-front of computer dismantling the floor at Clerkenwell re-sampling continually looking for colours that taste right - strange to be using colour so often now as a black and white thinker - rely on other senses rather than visual translations to find them"*²³

Adams has a form of synaesthesia, which Baron-Cohen describes as creating a world that is constantly in flux. In which Adams experiences a continuous stream of stimulus – sound, taste, colour and image – which metamorphose and transpose.

COLLABORATION

Adams also made some discoveries about artistic collaboration.

²³ 2 November 2012 a-n blog



Grey 2 (still), Jon Adams and Lucas Holzenhaur²⁴

JA *“I learned a fair bit through doing Grey, the handing over of certain responsibilities to someone else isn’t an easy thing for someone with Asperger’s; it’s not an abdication, it’s more a collaboration. I wanted to see what someone else looking in would see. Then go back and have another look and make something in response to that. Which was kind of the second part [Grey 2], to see if there were collaborations and synchronicity ... it’s an experiment. It’s an input, action, output almost again.”*

SYSTEMISING - A TALENT

JA *“I’ve learnt both about Asperger’s being a gift and a disability. There are certain things I cannot do... and that mainly I am disabled by society. I’ve never found it easy to be in the presence of people and the world runs on interactions with other people. You can’t become a hermit... There are disabling sides of having Asperger’s and sometimes, for fleeting moments, I do despair that I find interaction with people so hard. But it’s not from my side, it’s probably from theirs and I do get very disappointed with people and that really hurts and people say having Asperger’s you don’t have any empathy and don’t feel, but that’s not true, you feel very deeply and you do recognise that you sometimes really don’t fit in and that can be a very hard cross to bear but then that’s totally eclipsed by... I do things very differently, I see patterns in everything – it really helps me make the work I do and I wouldn’t trade that in for anything.”*

²⁴ <https://vimeo.com/68990375>

Benefits of the collaboration

Although initially surprised at the willingness of the scientists at ARC to want to talk with him, Adams acknowledges the project was an opportunity for both parties and that the scientists he worked with also gained from the experience.

JA *“What I didn’t realise was that by having those conversations with the researchers I was doing them a service in a way that they don’t usually get the chance to talk to someone with Asperger’s like that. Just a general conversation: What do you do? What do you like? What do you eat? They were weaving what I was telling them in my personal conversations into a better understanding [of someone like me]. Again they were seeing a bigger picture rather than a subject. They get people in and they’re subjects, they see a narrow bit, they take their data ... so I think I did, well I know I did some of them goo, because they’ve told me, by just having a conversation and my little ways and quirks and the way I see things came across and added and filled in gaps in their knowledge for what they are researching.”*

JA *“uniqueness of them being with someone who is not the object of study too. Just talking in conversation to someone with Asperger’s adds a bit more of the detail and for them they see the bigger picture.”*

Baron-Cohen considers that researchers usually meet people with autism in a clinical environment for diagnostic purposes, which inevitably means a focus on the social disabilities encountered by people with autism. In addition, research tends towards generalisation and this project has given his team first-hand understandings. He describes one of the real benefits of this artist/scientist collaboration as Adams’ willingness to talk about his own experiences, which was both new and enlightening for many of those he met at ARC.

SBC *“It’s a different neurology that gives rise to a different profile of strengths and weaknesses and often the strengths are overlooked and maybe from the clinical and services angle the disability has to take priority. Maybe from the research angle scientists tend to emphasise the disabilities in order to attract funding, but actually if you focus on just one part you are missing the full picture. I think this collaboration between art and science, also between a person with the diagnosis and the researchers, is making sure we see the whole and I think that could have a very positive impact on how autism and Asperger’s is described to the wider community. Instead of just focusing on how it’s very difficult to live with autism or Asperger’s syndrome, we can talk about some of the ways in which autism leads to opportunities for the individual and with the right support they can actually be making fantastically original contributions.”*

SBC *“...someone with autism giving us first-hand description, not just about how the mind works, but the products of the mind which comes out in art.”*

SBC *“We were looking at this concept of systemising before I met Adams and actually I think this has enriched our work. And I want to thank you Jon for helping us understand this concept a bit further.”²⁵*

²⁵ Baron-Cohen 14 June 2013 talk at The Arts Catalyst, ‘Autism, patterns and systemising’

Future activity

Both Adams and Baron-Cohen express a desire to continue collaborating both for the artist to develop his art practice and scientists to follow new lines of study to improve the understanding of autism and help develop some therapeutic approaches to improve the ways in which teachers and families support people with Asperger's.

JA "It's quite a nice surprise...and that was the beauty of going into the project, of not knowing what would come out, what directions... There are eight or nine different directions I could have gone. There are other things that I need to make. There are other ways to go, deeper ways of pushing it. Almost this was a pilot scheme to look at the overall picture and to pick a few details out and those details I'd now like to explore. There's a lot more questions, that need answers have come out of this. A lot more depth that could be explored. A lot more collaboration with some of the scientists. A lot more conversations with Simon. A lot more conversations with myself exploring who and what I am and the way I think. I know a lot more now than I did when I started. But I want to know more. I want to systemise it more."

Baron-Cohen found the collaboration fertile ground for developing new hypotheses which he would now like to explore further. These include:

TRANSFORMATION – the systematic pattern identification, recording, decoding and transforming which might provide a clue to help teachers of children with autism develop methods that encourage the use of these faculties rather than presenting children with a 'blank page' which they may find disabling.

SYNAESTHESIA – Adams not only gathers visual input when he looks around his environment, but for him that visual input automatically triggers experiences of sound, smell, taste or colour, and vice-versa. Sounds trigger colours, colours trigger tastes and so on. This continuous flow of sound, taste, colour and visual pattern creates a real sensory overload and Adams describes how it is extremely distracting. Baron-Cohen sees potential in further studying Adams by using brain scans while playing him music to watch the changes in his colour cortex and observing his auditory cortex while showing him colour.

DETAIL AND SCALE – how changes in scale relate to pattern and structure and enhanced detail for people with autism.

CENTRAL COHERENCE – whether a larger study group will reveal more examples of people with autism able to demonstrate strong central coherence.

SEEING THE HIDDEN – innate pattern recognition skills. Adams the geologist has a talent for reading the landscape, are there other areas where these instinctive skills make for exceptional professional abilities? For example are their correlations between people autism and Asperger's and work in scientific areas, for example reading X-rays, identifying rogue cells in cancer screening or other tasks where pattern-recognition talents are highly desirable.

DEVELOPING THERAPIES – the light Adams has shed on the way he operates by devising new rules could help therapists develop new ways to help people cope with autism. He described how a mum contacted him, after reading his blog, about how her child with Asperger’s was struggling socially because of his discomfort with encountering the unexpected. Adams suggested she could encourage him to make a game out of the ‘rules’, creating a new playful ‘rule’ to spot the things he doesn’t like which would help prepare him for encounters that were not predictable.

SYSTEMISATION TASKS – presenting people with systemising tasks while undergoing MRI scans to observe brain responses to pattern identification.

The Cambridge MRI scanning unit team told Adams that their conversations have influenced how they are now undertaking MRI tests with patients they are reconsidering the images they thought to be suitable – like pictures of different kitchens which they thought would be dull and the habituation of repeated similar images would enable the patients to ‘switch off’, but Adams explained that as systemisers some people with Asperger’s would find the detail distracting and be unable to ‘switch off’. In the second phase of Konfirmation, Adams would like to explore this further with the MRI team at Cambridge to see if they can test for this pattern seeking.

JA “How’s about this - Heard today the MRI scientist have amended their testing after the chat we had! Adding supplementary areas looked at in the brain as proof or elimination to what they look at to start with....I looked for details in their pictures when they flashed up so didn’t get ‘picture blind’ and I said they should look for this - easier to explain face to face but pretty proud That’s great news- they are who I would like to do more with”²⁶

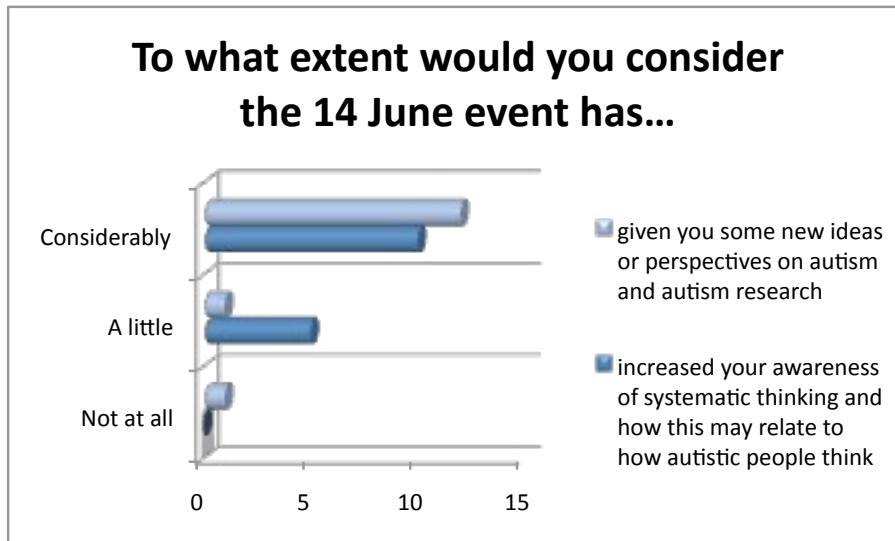
JA “The added bonus [of the diagnosis] is that I can take part in scientific trials now. I can give something back, but secretly I can learn a lot by doing that too...I can subversively answer some of those questions I want answer to myself by helping answer other people’s questions. It will be a challenge, but I’m up for a challenge and helping deeper understanding, well that’s good.”

Baron-Cohen is also interested to discover whether Adams’ new awareness of his pattern processing has interfered with or will alter his artistic practice.

²⁶ 30 Jan 2013 email Jon Adams to Jo Fells, The Arts Catalyst

Audience findings

Those attending the performance talk on 14 June were asked to self-complete a questionnaire, of those responding 12 (of 14 respondents) said the event had given them considerable new ideas about autism while 10 (of 15 respondents) said the event had considerably increased their awareness of autistic systematic thinking.



Asked for their comments on the performance:

"I think I was seeing a systematising mind and gaze in Jon's films. Thoughtful geography of his attention."

"Peaceful, lulling, rather lonely. Mesmerising."

"So beautifully fragmented and representative of the autistic mind. The last image in Grey II was particularly haunting and drew upon the moments we flip out of our autism a bit and think 'Wow... my mind is different.'"

There were specific comments about how the work could be shown more widely in future:

"It would be great to watch Jon create his charts and patterns to an audience."

"I think it would have worked better to see in detail how Jon created these pieces, what he used and how."

"I would have liked to see Jon using his synthesizers."

"Sounds great, but it is so rare to have a personal insight in to the autistic spectrum, please don't stop presenting talks in person. It's so important in creating awareness."

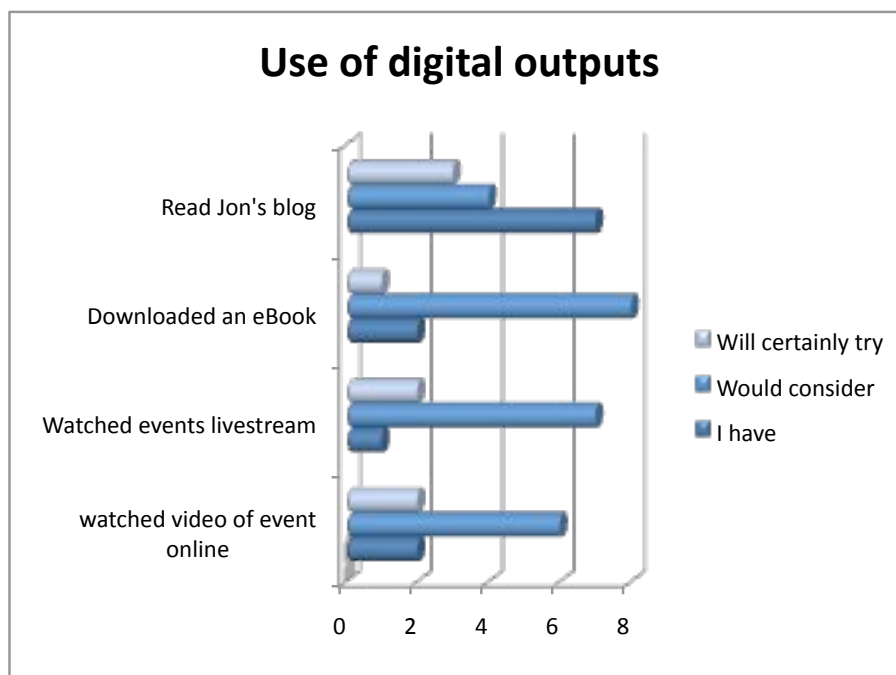
And of the project's ability to raise the public's interest in autism and challenge the perception of autism as a 'pathology' or 'tragedy':

"I found it very interesting that Jon said he can not differentiate between "art" and "science". Additionally, this event helped me to understand my brother's Asperger's syndrome to a greater degree."

"It gave a really clear picture of autistic world."

*"Very nice, aligning the art and science in what was clearly a very comfortable relationship."
"It's epic :) Jon, that was stunning. TOTKO approves, it was truly inspiring. Words I'd associate with this evening; charming fragmented compartmentalised pebbles waves"²⁷*

There was also an enthusiasm for the digital outputs from the project with survey findings that seven had read Adams' blog and others would consider trying other digital outputs like an eBook and video. It is too soon to report viewing statistics for the videos of the 14 June event, which have only been on line for a few weeks. Several Facebook and Twitter comments were about the value of the livestreaming as not everyone invited was able to attend the event in London, however one respondent did comment, "I'm a luddite so it's a form I am least likely to engage with," highlighting the importance of further presentations in person and traditional exhibitions.



In the comments book from the AXNS event in Oxford in March 2013, those attending the talk, 'Affecting Perception' wrote:

"Absolutely amazing. Interesting to see the connection between art and neuroscience!"

"Very much enjoyed a new 'insight' – well done!"

²⁷ TOTKO Twitter profile description as the UK's first organisation to provide workshops, support & information on all learning difference totko.org

“Such a refreshing exhibition – great to see this subject matter being explored and widen people’s understanding of neuroscience.”

“Interesting, my stepson has a brain injury. I will encourage him to try to relieve his frustration with art.”

“Fascinating. A new and refreshing view on mental illness is what I’ll take home with me! Art is such a great way to understand what other people think/feel. Great work.”

“Great exhib! Thoughtful and very interesting – congratulations.”

And in their self-complete questionnaires, those attending had written about what they had learnt:

“I heard for the first time about living with autism from a personal point of view”

“How fixed the rules of aspergers are and how important they are and why”

“Heard about what it feels like to have Asperger’s syndrome and how it is explained”

“An insight into a different and interesting world”

“Strength of patterns”

“I begin to see how important it is for people with ASD to find order in the world. Also how the exploration of cause and effect is key.... Gave me some pause to hink about some behaviours I see”

“More about systemising aspect of Autism – had been taught a lot about it as a ‘disability’ but not as an ability”

“More about social aspects of Autism and how patterns can enhance interest”

“A little about how an autistic mind works”

Media coverage

Portsmouth University website mentioning project:

<http://www.port.ac.uk/update/2012/10/Adams-Adams---new-science-and-art-residency-at-cambridge-university/>

The *Sunday Times Magazine* feature with Simon Baron-Cohen including photo:

<http://www.thetimes.co.uk/tto/magazine/article3678558.ece>

New York Times

http://www.nytimes.com/2013/03/26/science/advice-to-researchers-and-reanimating-dead-mice.html?_r=0

Radio Oxford interview relating to AXNS 'Affecting Perception' talk in March 2013

Nature, article pulled due to pressure on pages in July 2013 edition but strong interest from Barb Kaiser, editor of Art & Books section for feature when Konfirmation is exhibited/presented more widely.

The Psychologist, 'Big Picture: A mind that can't help spotting patterns' March 2013, image 228, British Psychological Society's online journal with over 13,800 registered members) – photo story

http://www.thepsychologist.org.uk/archive/archive_home.cfm?volumeID=26&editionID=223&ArticleID=2246

a-n - news 'Collaboration sheds light on autism and artistic practice' Jack Hutchinson, 12 June 2013 <http://new.a-n.co.uk/news/single/collaboration-sheds-new-light-on-autism-and-artistic-practice>

Adams recognised by RSA <http://www.port.ac.uk/uopnews/2012/06/29/artist-recognised-by-royal-society-of-arts/>

Short Circuit, review 8-9 June 2013 at Lighthouse Brighton, where Adams presented his ARC project <http://shortcircuit.org.uk/Adams-Adams-at-open-circuit/>

Spotlight interview with Takes One To Know One, Jon Adams, 11 August 2013

<http://totko.org/2013/08/11/spotlight-jon-adams-frsa/>

The Autism Daily Network featuring TOTKO interview, 11 August 2013

<http://paper.li/autismnetwork/1309174008>