8th Annual Disability Lecture: "Neurodiversity and Dyslexia"

Dr Ross Cooper

Transcription

[Introduction by Ray Jobling]

… if you have a different kind of emergency and you need the toilets they are on the other side of where you’ve just had the wine so don’t feel, eh, any doubt about where they are. So, if there are any queries they are plenty of people around who can help you with those.

Good evening, my name is Ray Jobling and I’m a fellow of St. John’s and it’s been my privilege, really, to be associated with the Annual Disability Lecture since the very beginning and this is the 8th of these lectures that we have. They were always well attended but of course tonight we have a particularly good turn-out so I’m grateful to all of you and I know you’re going to have an interesting evening. I’d like to welcome you on behalf of St. John’s who are your hosts for this evening and have been from the very beginning of these series and also of course also the Disability Resource Centre and frankly, they are the people who have done the work to get this show on road and so I’m very grateful to them. A special welcome this evening to the Mayor of Cambridge, Cllr Russ McPherson, and it’s a very privilege to have him with us and he’s very welcome and thank you for coming. Russ is very well known for his support of educational issues in the City of Cambridge, the CRC, and I think, Russ, you’re closely associated with Red Balloon, aren’t you? Which is, eh [short interruption by voice from the audience, not intelligible] one of the Mayor’s charities, which serves young people, teenagers who are exposed to the difficulties associated with bullying, so a very good mention for that.

So, to the main business of the evening, we’re very, very fortunate and grateful to have with us Dr Ross Cooper, who I know is known to you. Ross is a principal lecturer at South Bank University in London and he directs a very successful MA course on adult dyslexia which focuses on diagnosis and support and he was telling me the numbers that were involved upon that course and it’s a national enrolment, so it’s a very, very important contributor, ah, to advanced training in the, in the field. Ross is very, very well-known, he’s a leading specialist on specific learning difficulties and particularly on those difficulties as the impact on the student population. So enough from me, neurodiversity and dyslexia, Dr Ross Cooper.

[Lecture by Dr Ross Cooper]

Thank you very much indeed, I’m absolutely delighted to be here. Ehm, trying to get this up. [8 sec pause] Here we go. [4 sec pause] It’ll come in a minute.
Ok, ehm, what I’m going to be looking at today in quite a short space of time is, eh, neurodiversity in dyslexia and what I’m trying to articulate is, ah, a new paradigm of dyslexia and specific learning difficulties.

Is this picking up when I go near there? Or are you ok? [2 sec pause] You’re ok?

And really it’s a move from the medical to the social model of disability but it has, eh, new directions, it points in new directions and new problematics and that’s what I want to tease out today. Ehm, and I’m going to do that by looking at what we think we know about dyslexia, what the paradigm shift is, cognitive styles, neurodiversity and new directions.

Now, I expect most of you are familiar with the story of the person who went to Ireland and got lost on the way somewhere and asked the locals how they get to that particular town and he sais “Oh, if I was going there I wouldn’t start from here” and that’s exactly the problem we have with articulating a new paradigm. Every time we start to describe it people reinterpret it in terms of the old paradigm, so it gets a bit messy. And what I’m trying to do in this short space of time is to identify key features that are very different. Ehm, neurodiversity was coined by somebody called Judie Singer who has Asperger’s and really as a response to what [?] describes as the eugenics movement, ehm, based on the medical model of ah, of ah, Asperger’s and Autism, saying that if we can’t cure it we can prevent it. And she was saying, “hang on a minute, hang on, I don’t want to be prevented. I am who I am and, you know, there’s nothing wrong with me, you just don’t like who I am”. And I think this is really a very important concept and has immediate resonance for me as a dyslexic person thinking “yes, hang on a minute, I am who I am. Who do you think you are to tell me there’s something wrong with me?” And so there’s been a shift from the deficit model to the difference model and you’re probably familiar with the idea of moving from specific learning difficulties to specific learning differences, right? And there’s a sense in which the new values of the new paradigm have been incorporated into the old paradigm. Because, really, when most people talk about specific learning differences they’re really meaning the difficulties, only we call them differences. And really that’s not, that’s not it. That doesn’t really capture the whole spirit of the social model of dyslexia.

Now the social model of disability is very clear and I think most people are familiar with it. The idea, for example, that someone’s not disabled by the impairment, whatever that is, but by the expectations we have of people. So if someone uses a wheelchair then they’re not disabled by the fact that they’re in a wheelchair, they’re disabled by the fact that someone expects them to get upstairs. And so similarly with dyslexia, we’re not disabled by dyslexia, we’re disabled by the expectations, the education systems and other systems have for us.

Ehm, now, what we’re going to do is we’re going to explore that paradigm shift and what that does is that it reframes everything we think we know about dyslexia. So the first thing we have to ask ourselves is what is it we think we
know? Well, most people would agree that, ehm, people who are dyslexic have a range of processing difficulties – and we come to what these are in a minute – and working memory difficulties, and following that, organisational difficulties perhaps. I don’t think I would argue with that.

So what are the processing difficulties? Well, there are a number of them. The classic one is auditory processing difficulties which manifest itself in terms of difficulties with learning phonics, with processing fast speech, bringing meaning to the speech, ehm, with auditory working memory and so on. That’s quite easy for most people to understand because we all have some difficulty with that. Yes, we’ve all been in a situation of Chinese whispers and missed it and thought that we knew what was going on and didn’t. Visual processing difficulties are more difficult to explain and we’re going to see a short video in a minute about that. Motor difficulties which manifests itself in terms of organising the sequence of muscles, learning sequences, ehm, making unintentional motor errors when you’re spelling and so on. The one that’s really missing for me in all that processing difficulties is time. Because most people who are dyslexic have difficulty processing time in the way that other people do it. And we’re going to come back to that later. So first of all, what I want to do is show you a short video. It’s only about 6 minutes long, ehm, and I think it’s the best video ever made to explain what it feels like to be dyslexic and I’m showing it to you for two reasons. One is to get a better sense of what we mean by visual processing difficulties and the other is, ah, well I come on to that one later when you see it. Ehm, it’s an American video, it’s not very well made, it’s over 20 years old, ehm, it talks about the LD child, meaning learning disabled, which in America means dyslexic. If you could ignore all that and just enjoy it then I think you’ll have some fun.

[Video starts]

[Teacher’s voice:] Ok, open the next page. Read it and tell me what’s on that page. Just look at your own books, look at your own book, please. You know what that is Elaine? You know what that is? Yes you know, yes or no, you know the answer. You know what that is Tom, yes or no?

[Student’s voice:] Yes.

[Teacher’s voice:] You know what that is Carol, yes or no?

[Student’s voice:] Yes, possibly.

[Teacher’s voice:] You know what that is Stefanie, yes or no?

[Student’s voice:] Yes.

[Teacher’s voice:] You know what that is Karin? Yes or no?

[Student’s voice:] No, no.

[Teacher’s voice:] Debbie you know what that is, yes or no?

[Student’s voice:] No.

[Teacher’s voice:] Ok, let’s work with Debbie here, ok? Let me show you what happens with a learning disabled child in a classroom when he’s unable to perceive. There’s basically 4 things a teacher does when a child cannot perceive something. Here’s the first thing that teachers do. Each one is a little bit silly but [unintelligible] here’s the first one that teachers do: Have another look at this, Debbie, look at it, Debbie, here it comes. Look at it harder. See I don’t know what [unintelligible due to laughter] for years to children to look at something harder. I have no idea what that means. I don’t know what that
mean, I mean push harder or pull harder but I can’t look at something harder. So the first thing we do is we tell them to look at something harder. If that doesn’t work we do this: Debbie, put that book [unintelligible] The second thing we do is to say we’re going to give them something. Please tell me what that is, tell me what that is and you can be first one [unintelligible] to recess. Did that help? Why do we do that as teachers, if the child can’t do something so we automatically promise them something and that would be like if I took my child to the hospital with a temperature of 105 degrees and I went to the doctor and I said doctor my child’s got a temperature of 105 degrees and the doctor says, here, I tell you what, here I give you this [unintelligible], I give you this [unintelligible, laughter] if you can get it down to 102 son, how about that? You would expect the doctor to give some sort of medicine. You wouldn’t expect the doctor to try to bribe the child about the temperature but yet that’s what you do with these kids, you try to bribe them, by giving them things. Did that help Debbie?

[Student’s voice:] It’s a [unintelligible, laughter].

[Teacher’s voice:] Now the 3rd thing we do is we begin talking things away. We begin taking things away from the child. Tell me about the [unintelligible] out of recess. Tell me what that is or I’ll send it over to your mother. Tell me what that is or I’ll trap [?] you down to reading group. And if that doesn’t work we’ll go into our 4th mode, which is something that I find very distressing as a personality trait that many many teachers have and that is what we call “blaming the victim”. What we do is we blame Debbie. We say the reason why Debbie can’t tell me what this here is is that she is not trying hard enough. You see what that reflects is what’s called blaming the victim. What we say is the reason the child can’t tell me what this is is that the child is not motivated. It’s a motivational problem. Because we all know that the answer to learning disabilities is motivation, right? The key to overcoming learning disabilities is motivation, correct? Wrong! Wrong! Motivation is one of the most misunderstood concepts in education today. Motivation only enables us to do to the best of our ability, what we are capable of, doing. Let’s try a little bit more. Debbie, can you tell me what this is now, yes or no? Yes or no Debbie?

[Student’s voice:] No, of course, no.

[Teacher’s voice:] He we go Debbie, I’m going to check, write a check for $100 and I’m going to sign this over to you if you can tell me what this is in 5 seconds. [laughter] 5, 4, 3, 2, 1 – 5 more second for $100 – 5, 4, 3, 2, 1 was Debbie motivated? Was Debbie motivated? Could she do it? No, because you see learning disabilities has very little to do with motivation. What it really has to do with is perception. Perception. You see, you can all see this picture, but you can’t perceive it. Here’s what I’m going to do, I’m now going to give you some direct instruction. Once I tell you what this is half of you will automatically get it but you won’t understand why you couldn’t see it in the first place. The rest of you will need a little extra help and that’s ok too. There will also be some of you who will say that you know what that is but you really don’t, but don’t do that, ok? [laughter] Once you see it I’m turning on the light on a dark room but this is a classic picture which illustrates the difference between vision and perception. You can all see it but you can’t bring meaning to it until I teach you what it is. And that is to demonstrate that what the LD child needs is a teacher. He needs a teacher, not necessarily all kinds of commercial software, what he needs is a teacher to give him this direct
instruction because once I give you this direct instruction you’ll be able to see this perfectly clearly. What you have in front of you is a photograph, a poor value photograph, but the photograph of the face of a cow. The cow is looking directly in your face.

[Student’s voice: astonished] Aah!

[Teacher’s voice:] Raise your hand if you cannot see and I’ll come around and who you. Raise your hand if you can’t see it.

[Student’s and adult voices, murmur:] Face of a cow. [Surprised remarks, laughter]

[Teacher’s voice:] Anybody cannot see it? Ok, everybody please look at the picture, what do you have in front of you? It was a cow. I didn’t change it, I didn’t change the stimulus. All I did was I gave them direct instruction and yet what we do with learning disabled kids is that we expect them to go in a corner and teach themselves. Or we assign them to the newest intern or the volunteering mother that we have. What they need is trained experienced teachers. Once I’ve taught you what this was you had little difficulty perceiving. And you see this doesn’t really does count as the experience for the child for this reason. No one in this room could do this. The real experience of learning disabilities is being the ONLY person who can’t do it. The other kids open up their books and read and you sit and think what’s everybody doing and I don’t know what this is? I can’t understand this, why can everybody get to work right away? See that’s the real experience of being learning disabled; being the ONLY one who can’t do it.

[Dr Ross Cooper]

Ok, I said there were two reasons why I showed you that video. One was that it’s hard for some people to understand why it is that people can look at something and not get it. And I think that most of you probably didn’t get the cow, is that right? It’s kind of different from a distance, it’s kind of easier to see. Eh, but the other part of it is, is that, how it feels to be in that situation and not know why you can’t do something. And I think a lot of us in the world of dyslexia spend a lot of time saying that isn’t an emotional problem, this isn’t a psychological thing, this is not a confidence thing, this is a real difference. And I think we’ve kind of forgotten sight of quite how devastating it can feel to go through those experiences and it’s a really important part of the experience. And I mention that because it’s going to come up later when we look at the new models of dyslexia.

So, the paradigm shift. The way I usually model this is through laterality. How many left handed people do we have here today? Ok, that’s about right, that’s about right. You’re about four times as high to be dyslexic when you’re left handed. Ok, now we live in a right handed world. And, eh, ... ah, if we wanted to measure the difficulties people have with operating the right handed world and we did that entirely by looking at the tensile strength of the right hand, and the accuracy and fine motor control of the right hand the most left handed people will come up wanting. They come up with an apparent deficit. Does that mean there’s something wrong with them? Of course, it doesn’t mean there’s something wrong, it means that they’re left handed. And when we focus in on what people can’t do we do it at the expense of the bigger picture. And we’ve had – you know – over a hundred years of people looking over the
cause for various dyslexic difficulties without finding them. And for me it’s very much like looking for the cause of what’s wrong with this person’s right hand. When actually there’s nothing wrong with that right hand.

So, we’re going to look at the implications, what this means in practice. Now, the paradigm shift means that there’s a shift in priorities. The interventions change. For example, if you believe there’s something wrong with people and that things is, for example, an inability to use phonics and to process sound in that way then it becomes your responsibility to try to fix that as a teacher. So you’re trying to remediate that deficit and you do lots of work around phonics. And even though the Rose Review which is recommending phonics for all children, particularly dyslexic children, even in the Rose Review on dyslexia on page 69, you can look it up, says up to 60% of older children do not respond to phonics. What’s their solution to this problem? More phonics. I don’t think so, but you know … One of the problems is that when we’re looking at something like phonics we’re not just talking about a strategy, we’re talking about a clash of values. That’s why it gets so heated. Because the strategy is fine, no problems with phonics when it’s appropriate. The question is, when is it and how do you make that decision? Eh, so what starts to happen is the intervention in the new paradigm are looking at what can somebody do what are their strength, how do you build on those? How do you work your way around it? Eh, and start looking at responsibility, who is responsible for this? Is it the fault of the person who’s struggling or is it the fault of the system which has created the conditions of them struggling? And what do we do about that?

So there’s a shift in perspective from what are the specific learning differences to what are the core differences. Because under the new model, the differences aren’t the difficulties. That’s only one side of the differences. We need to understand what the nature of these differences are. This is a quote from me, it’s always nice to quote yourself and I won’t argue with it. Eh, where I say, “I’m not someone with dyslexia, I am dyslexic and were I not dyslexic I would not be me. And I wouldn’t choose to be somebody else so I wouldn’t choose not to be dyslexic”.

Now why is it intrinsic to who I am? It’s intrinsic to who I am because I would argue that the core difference is how you process information. And we’re going to look at that quite briefly. Now, eh, what I’m going to do today has …, a lot of what I’m saying is based on very clear evidence and, eh, a lot of theoretical support of what I’m saying, some of what I’m talking about is new. And is a reinterpretation of evidence and pointing in new directions. I’m trying to make sure to separate out those two things as I go along.

The first thing is, how do people process information? And we’re going to look at that and look at the role of working memory in that. … Eh, has anyone done this activity before? Anyone recognise this? No? Ok, we’re going to do it briefly. Eh, this comes from a website I designed, called www.outsider.co-uk.com and you can look it up and you can do it for yourself but we’re going to have a little go now. What’s going to happen is that I’m going to give you a little problem for you to solve. I’m going to give you 10 seconds to solve it, I
don’t want you at any time writing down what the solution is or indeed telling anyone else. So you can feel quite safe about how good or bad the solution is. What I do want you to do is think of the solution. Now, the picture I’ve got up here isn’t necessarily part of this process. It’s a, it’s a kind of aide memoir. It’s a desert island and off this desert island is this boat and that boat’s just hit a coral reef and is about to sink. I’m going to give you three minutes to think for yourself what you would take from this boat to help you survive from this desert island, starting now.

[30 second pause]

Good, now when you start to solve a problem like that one or two things is going on in your head. Maybe other things too, that’s fine. But the two things are either you find yourself talking to yourself about what you find on a desert island and what might be on a boat to help you survive on a desert island and whether or not you have anything to help you communicate with the outside world etc, etc. And you start naming those things. Alternatively, you may imagine yourself on the boat and imagine yourself on the desert island and see the things you need. Or both. So, could you put your hand up if you found yourself just talking to yourself. Fantastic, put your hand up if you just found yourself seeing it. Lovely, put your hand up if you did both. Fantastic, put your hand up if you’ve got no idea what I’m talking about. Ok, that’s fine too. Alright, now if you did both the experience is usually led by one or the other. So if you’re talking to yourself and as you’re talking as you name something you see it. Or, you’re seeing things and as you see the things you want you name them. So for those of you who did both put your hand up if you named it before you saw it. Put your hand up if you saw it before you named it. So we’ve got the same problem but people did it in very different ways. Now what we’re going to do, I’m going to divide you into two groups and also bearing in mind that ehm, we’ve got a very different range of preferences here. Also, if you’ve got a sensory impairment, this can also affect this. So, what, I’m going to give you some additional information and then I want you to measure what you wish you had with you again but all those people who saw it or saw it first the last time, try to do it without visualising, just talk to yourself. And all the people who talked to themselves and named things before they saw them, just try and do it without talking, just do it visually. And if you really can’t decide which or which just pick any that works. So, the extra information is: between the boat and the shore there are a whole load of sharks going backwards and forwards, what do you wish you had with you now?

[20 seconds pause]

Ok, put your hand up if you found it easy to do it the other way. There’s a sprinkling, yes, a little sprinkling, ok. So, am I right in thinking all the others, you may or may not be able to do it but you certainly wouldn’t choose to do it the other way? Is that right? So we’ve got some quite clear preferences between thinking visually and thinking verbally here, maybe for a whole range of different kinds of reasons but we’ve got them. And the key question then is, does it make any difference whether you think visually or verbally? And when I normally ask people that, the first reaction is “oh no, it’s fine, you do it either
way, we’re all politically correct here” but the more you think about it, the more differences there are. And people come up with this list time and time again when I ask them to do it for themselves.

Strength in visual and verbal thinking. The big strength in visual thinking is speed. Some research in America claims visual thinking can be 4000 times faster than verbal thinking. That’s quite an advantage, isn’t it? Erm, verbal thinking, on the other hand, is ordered. You know what you’ve been thinking, you’re good at analysing things, being analytic, good at being critical at things, good at being logical. Visual thinking, the root of the word gives it away, doesn’t it. Image and imaginative, it’s much easier to be imaginative when thinking visually, easier to be creative, easier for lateral thinking. Lateral thinking is only logic in retrospect. You can’t get to it through logic so it’s difficult to get to it through words, thinking in words – easy visually. Yes. Inductive logic, deductive logics; so when you’re talking to yourself on the boat you’re applying principles. What kind of things help you escape, communicate with other people, what kind of things, etc. etc. This is just: “what can I grab, you know.” This is good at abstract thinking, detail elements, two dimensional, cause and effect, I can spend ages doing this and normally ask people to heckle, so we can have a debate, but we haven’t got time today. Does that seem logical? Yes?

[Audience:] Can I ask a question?
[Dr Ross Cooper:] Yes.
[Audience:] What did you have [unintelligible on recording].
[Dr Ross Cooper:] I’ve tried this in lots of different ways. I’ve tried different things which are described verbally.
[Audience: Interjects, unintelligible on recording]
[Dr Ross Cooper:] Sorry? Oh it’s, what she … haven’t shown you the visual image that changed the way you think. Possibly. When I did the research we had three different things people were looking at. Eh, not looking at but scenarios. And one lent itself to visual thinking, one to neither and one to verbal thinking. To try and get a sense of how that works and we asked people to reverse in each case and we got very good data. It affects some people, it doesn’t affect others, but it depends on how strong the preferences are. A bit like being left and right handed – most people can do both but you’ve got a preference. If you’re left handed you know the left hand is here and there’s loads and loads of times you have to use your right hand because the left hand is simply not going to work properly. You know, scissors and knobs and millions of other things, god I could go on with that for hours as well.

Ok, this is from a very large sample, very large, about 700 people. Ehm, this is the percentage of people who only ever think verbally and never think visually. This is the group who can think both but prefer verbally. This is the group who do both but prefer visually; that was the first surprise, I wasn’t expecting that. And this is the group who only ever think visually. Ehm, we’ve taken all the people who’ve been diagnosed as dyslexic out of the sample to see what it looked like. Ehm, this is the dyslexic sample. A third of them only ever think visually. We’ve got some significant differences here. So what does
it all mean? This is a direct comparison which I think you’re got in your hand-out. Eh, these are interesting. Now what’s going on here and is it statistically significant? It’s not as good as the rest because it’s getting down to small numbers in the dyslexic group, but nevertheless it’s interesting.

So, I’m going to come back to the whole thing around visual thinking and what is that to do with dyslexia. The other thing is about short-term memory. And, eh, what I’m going to do is I’m going to give you something to try and memorise. Are you ready for this? Don’t write it down, try and memorise it.

[10 seconds silence]

Ok, and when I went around asking you what you’ve done, most of you would have most of it but not all of it, most people get the top line, they do lots of multi sensory techniques and bla bla bla. But actually, it says, big picture. Yes? B-I-G P-I-C-T-U-R-E. And you weren’t supposed to see that but had you seen that you wouldn’t have had to bother with those multi sensory techniques, you would have got the meaning of it. And you could work it out in the same way a mathematician can work out whether Pi R^2 or 2 Pi R is the circumference or area of a circle, it’s obvious that it must be the R^2 because that’s how areas work. So if you’ve got some meaning attached to this thing it’s easy to remember. Now, that’s really important because people who think visually tend to think holistically. There’s a correspondence, because most of the strengths of thinking visually are about the big picture. If you’re doing big picture you don’t need much of a short term memory. If you’re doing it verbally, you do. So there’s a relationship between those two. So when we discover that people who are dyslexic can’t do the short term memory stuff and particularly working memory, but I’ll come to that later, that’s not surprising. That should be expected. Is it a deficit, I don’t think so. So, you can think of this in terms of software, eh, or computer machines. Software is like the visual or the verbal. It’s the things you kind of see or hear and manipulate to get meaning and process meaning. What underlies that is the kind of machine code. Whether you’re doing it all at once or sequentially. And for me, this is my hypothesis, that whether you do it holistically or sequentially as the strength of the preferences is the really critical factor. It’s very hard to tell directly, to measure that. It’s easy to tell about visual and verbal thinking.

Now, one of the things you often find with people who are dyslexic and people who have other specific learning difficulties is that they are often synaesthetic. That is, one sensual bit of information merges with another. That’s a holistic way of processing sensual information, as far as I’m concerned. Has advantages and disadvantages.

So, working memory isn’t just remembering stuff, it’s doing something with it while you’re remembering it. So, for example, is I gave you a set of numbers like 5, 6, 8, 9, 7, you could give them back to me, that’s kind of short term memory. Working memory is, what I said and giving it in reverse. That’s something that most dyslexic people find extremely difficult and underpins a lot of the processing we expect people to do whether it’s auditorily or visually or motor. But the apparent talents that people kind of … eh … speculating
about in terms of dyslexia link very directly to visual thinking and holistic processing.

Now, this brings us back to neuro-diversity. The, ehm, the deficit medial model talks about co-morbidity. We say, well, when someone’s dyslexic they’re more likely to be dyspraxic and they’re more likely to have a ADHD etc. etc. And they are like distinct things which someone has more than one of. Like, you know, I don’t know, heart disease and stomach cancer, I don’t know. Ehm, now the neurodiversity model talk about overlapping conditions, that these things overlap. Ehm, they’ve got a lot in common. And I want to introduce you to this ‘Bagatelle Model’. Now the Bagatelle Model is a model of the way in which intrinsic differences play out into difficulties. So the Bagatelle’s a bit like a pinball machine. And you’ve got balls there and you’ve got a zing and a spring and boing and the ball goes up and it bounces around all the pins and ends up in holes or slots. Now, for me it’s a useful model for the way in which difficulties occur, in that, eh, you start off with a set of who you are, you go shooting around and who you are affects how you interact with these things in a number of different ways. And one of them is the emotional impact for what’s happening while you’re doing it. And to make this model slightly more realistic I’d like to think in terms of not only one ball but lots of different combinations of balls. And I’d like to think of it as at least three dimensional so we can really bounce around, people can get trapped in different places, you know, trapped with not being able to read or trapped with this or trapped with that. Ehm, and you end up at the bottom. And what we’re doing id defining people by where they end up. And I’m saying that’s the wrong end. That’s not telling you what you need to know. You need to know where people are starting from in order to understand how they’ve arrived there. People may arrive at the same place for different reasons. We need to understand the process.

Now, in terms of overlapping conditions, I’ve got four examples here. We know that if you’ve been diagnosed as dyspraxic you have a 50% chance of being diagnosed as dyslexic, if you’re diagnosed as ADHD you’ve got a 50% chance of being diagnosed as dyslexic or another 50% chance of being diagnosed as dyspraxic and 29% chance of being diagnosed as having Asperger’s. What’s all that about? That’s a big connection. Now it turns out, I’ve only discovered from when I wrote a chapter for a book on neurodiversity in higher education, and it was when I was reading the other chapters, scales seemed to fall from my eyes. Because, most of us in this world of specific learning difficulties have specific areas of expertise. Mine was dyslexia. And I didn’t know much about these other areas. And what I discovered really excited me. It turns out that all of these have the same thing in common, which is a strong preference for a lot of the people thus diagnosed as having visual thinking preferences. A strong preference for visual thinking. And very often associated with that, difficulty with working memory and short term memory. And I started to think that maybe we need to redefine this look at how that spells out and this is where the speculation and uncertainty comes. How does somebody start here and end up in one of these slots – or combination of these slots? What we know is if the main problem appears to be with processing sound: dyslexic label. If it appears to be a visual
processing: bit of a lottery, could be dyslexic, could be dyspraxic. If it’s with motor-coordination, it tends to be dyspraxic. If it tends to be with maths it tends to be dyscalculia. If it’s to do with focussing your attention on things because a lot of people like this don’t like to focus on only one thing, they want to focus on everything, cause that’s the way you make sense of it. Eh, and I feel like I’ve been channelled into these different areas and if I had stood back before and looked at it all, I might have seen these connections years ago. Eh, if it’s to do with time, it’s often diagnosed as ADHD or dyslexia, there’s so much overlap. Now the interesting thing for me about time is if you’ve got a very strong preference for thinking visually you can’t keep track of time while you think. You can if you think verbally but you can’t if you think visually. So it’s no surprise that lots of people in these categories have problems with timekeeping, deadlines, organisation, what happened in what sequence. They can tell you the important things, the things they’ve kind of mapped out where they fit, you know. These are the things that are really important and happened over the last two year but what order were they in? Forget it!

Now, these are the typical things that kind of inclusive learning strategies that we’ve come up with in relation to dyslexia and dyspraxia and the other things, we were talking about multi sensory which is important if you have to remember nonsense. Let’s not make it nonsense, hey. The learning to learn thing, the learning styles, active learning, overview first, feedback for learning, all these things are really important. But they’re all focussed, oddly enough, primarily on the individual. As if it’s the individual’s responsibility to get better. And I would say, why is it the individual’s responsibility to get better? Who decided that? It certainly wasn’t me. So, this is where we get into new directions and speculation. I was thinking about Asperger’s, not an area of my expertise at all. I suddenly started thinking, I need to know more about this. And I’m reading a lot of personal accounts of people who – supposedly – have Asperger’s. And they talk about holistic executive function. That all the details that they remember are all interconnected. There isn’t an organising principle of filing this there and that there because why would you? Why, what’s the reason for it? And also this thing about wanting the big picture, but not necessarily being able to get it. That’s kind of scary. I know in my own case, for example, with my auditory processing, I don’t get puns, or often don’t. The first time I realise that there’s been a pun is when people around me start laughing. Then I think, ok, probably a pun. So I think, what could it have been and I kind of track back and think, is there a pun there? And then after a while I may see what the word is but not necessarily get the joke, although sometimes I do. Usually I’ve laughed quite some time ago to make me not look stupid. And I’m thinking, that’s very similar to people with Asperger’s, isn’t it? I’ve always thought Asperger’s, a lot of the characteristics of Asperger’s are very opposite to dyslexic but I’m beginning to think, it’s not opposite. It’s just a different way of going through these processes. For example, I have a daughter who is dyslexic and dyspraxic. Constantly bumping into things, overfilling glasses, all that stuff; beautiful dancer. How does that work? Well actually it’s not a mystery. The reason she’s a beautiful dancer is she does that from the inside out. She does it from how it feels. The other things are kinds of learned behaviour, learned sequences and stuff. She
can’t get it. You want to teach her a dance, you start with the first step, you go on to the next step, she’d be there all week. You get her to watch it, imagine herself doing it, she can do it in no time at all. It’s this holistic sequential thing again. And I’m thinking, this is exciting. This is important.

Now, in terms of new directions we talked about social responsibility. And I think that very largely the disability equality duty is a very important piece of legislation. And it’s largely been pretty much ignored, where people can get away with ignoring it. The main focus of change has been around what we can do to make learning accessible for people in a very simplistic individualised way. You know, the learning to learn, the multi sensual, those kind of things. Really, we need to be challenging this. You know, if you have a car crash, whoever is in the car crash needs help. No matter the reason they’re in the car, if it’s their fault or not, they need help, right? We don’t apply this principle to education and I still don’t understand why. The next thing you might want to do is improve their driving skills. Which, you know, could be important. But you also want to think, what if accident keep happening here, we need to change the road layout, we need to change the signs, we need to get this right. Cause this is just causing death. And I feel very much like that about education, it’s destroying people’s lives. And we need to change it. It’s not rocket science, it’s fairly straightforward. And the disability quality duty requires all public authorities to do disability impact assessments of existing policies and practices. Why aren’t we doing that about forms of assessment? About course design? Why aren’t we? I don’t get it. This is a fantastic opportunity to make the world a better place. And for me that’s where the whole new paradigm leads really. To radical social change.

Thank you very much.

[Applause]

[Voice from audience, probably Ray Jobling ] Thank you very much, very thought provoking. I know you’ll have questions. The speaker is very happy to take your questions. I should say to you, we’ve been taping, recording the lecture and we’d like to do the same with the questions and answers. If you have a question please do ask them, if you don’t want to be recorded all you have to do is say [unintelligible] that. You don’t let it keep you from asking. Questions or points you’d like to make?

[Voice from audience:] Can you tell me what the advantages are of being dyslexic?

[Dr Ross Cooper:] Yes. Eh, I think that it is difficult not to talk personally, but to me the advantage of being dyslexic is being able to see patterns that other people don’t see, and connections that other people don’t see. For me personally, it’s very enriching my life by visualising everything. So for example, for me, all sounds have colour and shape. And that’s a source of great pleasure to me. So there’s all kinds of advantages. But I think in terms of learning it’s all about innovation, creativity, making a difference, prioritising, things that other people don’t seem to see.
[Voice from audience:] I’d always been told that Asperger’s was on a different spectrum, the Autism spectrum. So I wondered if you could comment on that but I, could I please put in a personal plea? What do other people do about keeping on getting parking tickets?
[Dr Ross Cooper:] Sorry?
[Voice from audience:] What do other people do about keeping on getting parking tickets? I’m continuously getting parking tickets and when I say I’m dyslexic they just think I’m making excuses.
[Dr Ross Cooper:] Yes.
[Voice from audience:] Anyway, that’s subsidiary.
[Dr Ross Cooper:] Yes, alright. You’re quite right, that is what everyone’s been saying, they’re entirely different things. But it just occurred to me in the last few weeks that maybe they’re not. And maybe there’s an interesting explanation to be done there. To look at what that might imply. So really that is speculation and as I said right at the beginning of that bit, it’s not my area of expertise. I’m just thinking, wow, what about that? In terms of getting parking tickets, I quite agree. I remember looking very carefully at the signs and it said, as far as I’m concerned, you can’t park there Monday to Saturday and then I got a ticket looked back at the sign and it quite clearly said Monday to Sunday, I don’t know who changed it. But there it goes, they take no notice, do they?

[Voice from audience:] I’ve had a few students, not very many, who, when I’ve said, oh let’s do a mind map, let’s do something visual, they’ve said, no no no no no no, I want it in a list. And they’ve made it very clear that they don’t prefer the visual way of doing things. So do you think there are some dyslexic students who actually are not visual or do you see everything? You do?
[Dr Ross Cooper:] No I do, I do think that. But then there’s the question of what do we mean by dyslexia? We may have people who may have similar difficulties but for quite different reasons. If dyslexic is defined by the difficulty, clearly they’re both dyslexic. If it’s defined by the differences, we need different terminology. Erm, I think the other thing to remember is that a lot of people are confused by mind maps because they’ve never been told how to use them properly. And I know for example my son, who he thought he hated mind maps until he was told properly and it changed his life. And so that’s another possibility. I wouldn’t like to pretend you should impose things on people but it’s worth an exploration.
[Voice from audience:] Hm, sure. Thank you.

[Voice from audience:] Do you think the education system fails higher ability students who are dyslexic because their condition goes unnoticed because they can … cope?
[Dr Ross Cooper:] Yes. [laughter]
[Voice from audience:] Er, what do you, oh. What do you think can be done?
[Dr Ross Cooper:] But I think it fails lots of people. And I think that we have … the education system has what I can only describe as very linear assumptions about the way human potential works and define people in very arbitrary ways on the basis of very arbitrary tests and very arbitrary indications which can have a devastating effect on individuals. I spent a lot of my professional life working with adults with severe learning difficulties and, ehm, I not met one of
them who didn’t have a very spiky profile. Who was really good at something. Some of them were fantastic at identifying how other people were feeling and responding to them, much better than most people. Now if that’s not intelligence then what is? So I think we’ve got lots of misperceptions about how this works.

[Voice from audience:] How can you counter the idea that within education there is a majority who learn in traditional ways and we can’t – and I’m very much quoting here – we can’t disadvantage them by transferring resources or changing things to accommodate the minority who have learning difficulties? How would you advocate for inclusive education for all?

[Dr Ross Cooper:] I think that it’s about getting the balance right. At the moment the balance is shifted far too much in a very linear, verbal direction in my view. I think also that people who are very verbal and very linear have something to gain by becoming more open to visual holistic approaches. I do a lot of work with teachers about teaching strategies and one of the things about people who are very verbal and sequential is they’re good at waiting. That’s built in. I mean, it’s an advantage and it means to me as a teacher that you can give them enough to be getting on with and focus on the other people who need the bit at the beginning to make sense of the bit that comes along. So I think there’s lots of strategies you can use. I don’t think it’s a matter of diverting resources, I just think it’s a matter of doing it better.

[Voice from audience:] Thank you. I don’t subscribe to this view personally, but I’ve been asked to comment on the situation where students in a Rossell Group University not an Oxbridge University who’ve got the grades to get there, i.e. four As, and have dyslexia, have to [unintelligible] provide 25% extra time in the exams, but actually are doing much better than the other students. And this was … it was suggested to me that these students have and unfair disadvan eh eh an unfair advantage and that’s why they were doing so well. I don’t think that but I would just like you to comment on that.

[Dr Ross Cooper:] Whoo, ok. Ehm, eh … I think, one of the problems, I feel, is that we have these kind of blanket solutions. That if you’re dyslexic you can get 25% and who decided that? That’s a very arbitrary thing. And, you know, some people may need 10% others may need 100%. What is it that people need? And I think we could be more specific about that, that’s one small part of this issue. Another is, for me, is why do they need extra time? And if it’s to process the language then if you were assessing their understanding you’re clearly disadvantaging them if you don’t allow them this time to process. So you’re not giving them an advantage by giving them the extra time, you’re just allowing to show what they can do. And if they can do better than others then that’s because they’re doing better than others. I don’t see this as a problem, I think that’s to be expected, really. Ehm, I think that that ehm, the other part of it is, we have a very, very prescribed way of assessing people. You know, all these timed exams seem to me to be a very bizarre way of judging whether someone understands something. You know, it isn’t a very effective measure. It’s very arbitrary and I think we can question that and say, what are we doing it for? For example, when I was at Southampton we were looking at vocational degrees. The assessment was modelled around what the expectations would be in the work place. So for example, the sociological bit, you may have had
to write speeches for somebody, but you get, like, three days to write a speech. So we give them three days to write a speech, so why would they have to do that in an hour or two hours? That’s so arbitrary. And I think we need to challenge the arbitrariness of these things.

[Voice from audience:] Some disciplines are intensely visual and some are verbal, so how do we make an interdisciplinary dialogue between these disciplines to accommodate the new paradigm of neuro diversity?

[Dr Ross Cooper:] Hm, ok. I think that’s a really interesting question and I think that one of the temptations is to say that certain disciplines lend themselves to certain kinds of ways of thinking or certain kinds of ways of communicating better than others. And I think that’s a reasonable argument to make in general but it’s a very dangerous argument to make for individuals. Because individuals are more complex than that. So for example if you take Gwyneth … I forgot her surname, you know, the deaf percussionist.

[Voice from audience:] Evelyn [unintelligible]

[Dr Ross Cooper:] Sorry?

[Voice from audience:] Evelyn Gwenny.

[Dr Ross Cooper:] Evelyn Gwenny, thank you. Yes, I’m hopeless at names, thank you. You know, you wouldn’t imagine that would be a sensible career move, to get into percussion, really, if you’re outside of her world. But clearly it was an eminently sensible thing to do for her. I think we make judgements about these things … often with insufficient subtlety. If we’re looking at how we can make things more accessible, then I think that’s a very interesting debate because you could argue that perhaps some things shouldn’t be so accessible. And I think that’s … ehm, I said something awful. Let me think how to phrase this more accurately. … Ok, if, if for example … if you go into my office you can see I’m dyslexic immediately, because you would either see a mess or fall right over it. So, it’s clear, my personal organisation is terrible. So, for me, doing a job which involved being well organised and getting all the details right, I wouldn’t even begin to go there. And so I think it’s sensible for me to think, well I won’t go there, I shouldn’t go there and noone should be making it more accessible for me because it would just fail and I’ll be rubbish at it. On the other hand, I’ve got a colleague who has severe visual processing difficulties which is usually associated with having a messy desk and his desk is absolutely pristine. Because he has such severe difficulties with that that the smallest amount of mess on the table throws him so completely that he has to find a way of managing it. So he may be very good at that. So I think it’s a, it’s a tricky thing to map these things out. Does that answer your question, or not?

[Voice from audience:] Yes, certainly. But I would just like to add by saying I think we need to look at each discipline from the bottom up. Rather than delivery and … the delivery part. Because, unless we go from bottom up of each and every discipline we are not going to address the issue of neuro diversity in a true sense. Then it becomes an add on, you see, an accessibility adjunct of the discipline. This is my comment rather than …

[Dr Ross Cooper:] Yes, ok. I would really agree with that and I certainly do a lot of work around ehm basic skills like numeracy and the problem that most people have with acquiring numeracy is really simple to solve. The problem is that they don’t understand how to bring meaning to it and they don’t
understand how to bring meaning to it because they’ve been taught in such a way that it’s virtually impossible for them to bring meaning to it. And yet there are lots of different ways in which you can bring meaning to it. It’s just about making that match and making that happen. So I think that for me, from the bottom up my understanding that there’s always more than one way of skinning a cat and how that does and doesn’t fit with the progression of the understanding of that discipline and one of the problems that we have is that we’ve set up a lot of the disciplines in a very sequential way which assumes that it goes from this point to that point when actually for many people it goes the other way round.

[Voice from audience:] I’ve been thinking as you were talking about dyslexia assessment. We have or exam concession assessment we have to call it. The assessment seem to me to be very verbal and based around the deficit model you were talking about. And some time ago I was wondering about the difficulties of assess bilingual speakers for dyslexia and whether one might be able to use visual methods of assessment. So I wonder if you could comment on that, because it occurs to me that there could be some wonderful forms of assessment that would actually not look at deficits but at the benefits of dyslexia that would be interesting to look at, the visual processing or whatever.

[Dr Ross Cooper:] I think that it would but I think that it’s important to remember that up until university level access levels to exams are not based on a diagnosis of dyslexia, they’re based on getting a low score on a particular kind of test. It’s very much like the car crash model, you know. It doesn’t matter why you crashed; if you crashed you get extra time or whatever. And I think that one of the problems is that that happens in the school sector. There’s lots of debate over whether this should or shouldn’t happen. Then when you get to higher education you don’t get anything unless you’ve got a diagnosis. And then you’ve got the bizarre situation of having all this wonderful kit and support if you get to university, but not to allow you to get to university. You know, it’s a bizarre situation but I think that reframing how we understand dyslexia opens up these possibilities and certainly the outside website which also does a screening for dyslexia is the only one I know which is based on the social model of dyslexia. But it does look at the difficulties somebody experiences, because really that’s part of the issue. And then I think it’s also about how do you process information and also what strategies do you choose to use.

[Voice from audience:] Yes, I’d be interested to look at that. Thank you.

[Voice from audience, probably Ray Jobling] Can I try you with one? WE work in universities and lots of people here are working in universities. Is there anything distinctively problematic about universities in the context of what you’re saying? And if there is and you were able to do something about it, what actions would you take to improve the situation in the university sector?

[Dr Ross Cooper:] Oh, yes, that’s … yes … where do I start? [laughter] I think that there’s a historical perception amongst many academics of a linear concept of intelligence and educational capacity which is problematic because I think it’s an illusionary concept. And that plays out in lots of different ways, and it plays out particularly in relation to standards. One of the anxieties of
most higher education organisations is about maintaining, the importance of maintaining standards. But it’s about how you judge whether these standards are being maintained or not that is the critical issue. And for me a lot of the ways in which the assessment takes place doesn’t actually do that. It gives the illusion of maintaining standards but actually it isn’t measuring the standard of understanding and skill that you really want to measure. And I think that really looking at assessment is a really important and critical feature. The other problem that’s unique to universities is they’re incredibly atomised. If you go into a college, there’s lots of problems with colleges, but until much further education now, or indeed schools, but there is a sense of it’s organised as one thing. In universities it’s not. Dyslexic students often ask me advice about what universities to go to, I can’t begin to tell them where to go to because what quality of understanding of support they get does not just vary from university to university but can vary from faculty to faculty, from department to department and from individual to individual. And one of the key problems in higher education is that you don’t have to go to start development, it’s the only educational institutions which don’t require it. Which means that the only people who do are the people who are already interested. And I think that’s a major problem and I think there is one level of appraisal but I think it has to be systematically and a vote. So that people can actually start to understand what the issues are and I think the problem for a lot of academics is they don’t understand them and think they do, which is even worse.

[Voice from audience:] I counsel professionally and I have a sort of capacity to pick up people who are dyslexic. And they often don’t know. Now, this is me giving a very simplistic statement, but it is an attempt to try and understand. In some ways I find there are two kinds of dyslexics; one kind veers towards the Arts and creative and the other veers towards the scientific and the rational. In one sense this is an obvious thing but the interesting thing is that they have this underlying this which is in common and I think it’s partly creativity and sometimes I find that I’m counselling somebody who has Asperger’s, I suddenly realise that underneath they have this incredible creative side which has never come out. So much so that they actually change career and it is just very interesting because they get pushed to one end or the other whereas actually there is an awful lot in common. I’m an artist myself but there’s such a connection between these different kinds of dyslexics yet on the other hand sometimes you can’t see that they are the same thing, that’s really what I wanted to say.

[Dr Ross Cooper:] I think that there’s a whole area which is again a little controversial but I’m supervising someone’s PhD on Art and dyslexia at the moment and she’s arguing that there’s a thing called ‘intuitive creativity’. And you have to be quite careful about this stuff, it’s very difficult to measure these things and to get good data. But there’s a lot of anecdotal evidence about dyslexic people just intuitively knowing things which is hard to explain away. For me one of the key facilities of being dyslexic, and someone asked me what are the advantages, and this is probably the main one, it’s about problem solving. It’s about solving complex problems immediately. You know, just seeing solutions. Now, I use very visual terminology because I’m very conscious about being a very visual thinker. But it isn’t about being visual, it’s
about being holistic. And just seeing, you know, it’s like ripples in a pattern. You know, you just see where the solution is. And a lot of people with Asperger’s are good at that and a lot of dyslexic people are. And I think it’s just a product of that way of thinking. I was working recently with somebody who is dyslexic and has Asperger’s or the Asperger spectrum and he is a chemist. And he says, what I am is, you know, I can solve problems. You give me a problem and I just mulled it over a little while and bang! I can see the whole solution. And for me this was very much what it feels like for me and whether you apply that to art or science or maths, it’s that that’s in the heart of it, I think.

[Voice from audience:] Is there a danger that there’s too much being done for dyslexics and people aren’t actually asking their opinion about what they want?
[Dr Ross Cooper:] I would say there is, yes. I worked with a lot of people who’ve been through the school sector, who’ve had a massive amount of support in the school sector and a heartily sick of it and don’t want anymore. And I think that we don’t do enough to ask people about their experiences and what would actually help them, particularly when they’re children and I think that a lot of forms of support in my opinion are quite abusive. And I think that’s true for people who are on the Autistic spectrum in particular. But I absolutely agree, I think we need to be listening to people and I think the reason that there’s been this shift towards this new paradigm is because we have more opportunity to speak to these people who have been identified as having specific difficulties.

[Voice from audience:] The trouble with the idea of conditions, still, is that when people learn in a certain way and if you have this kind of condition that’s an excuse or the diagnosis then it’s suddenly okay that you learn differently. But still the norm and what’s ideal and expected if you don’t have a diagnosis is to learn in the conventional and traditional way. Is there anything to be said to overcome that in itself and move beyond diagnoses to different ways of learning and each individual student being taken as an individual?
[Dr Ross Cooper:] Yes, I would say I’ve spent a large part of my professional life looking at exactly that, what that looks like. There’s a real danger with all this. One of the advantages of the deficit model is the disabled students allowance. It’s made a huge difference to people. And if people get the idea that people who learn differently are not disabled then they’ll lose the disabled students allowance and actually that could be disastrous for people because the fact of the matter is that most of the time they’re still expected to produce things in a form that is not how you do it. So I think there’s a danger attached to that but I do believe that, absolutely we need to shift away from that and we need to begin to work with organisations, institutions, educational and the workplace systems to make those changes. I can’t see why we wouldn’t.

[Ray Jobling:] Ok, thank you very much. Let me first of all say a big thanks to St John’s College, it’s a very good setting for the lecture and the staff have been extremely generous to us. Every year they come up with the good and it’s a very nice place for this to organise, so I’m grateful to the staff. Thank you of course to the DRC and the team: John, Kirsty, everyone who has worked
very hard in order to get the lecture in place. And I’d like to thank the University Centre staff for providing the back up for the DRC 52 weeks of the year. And a particularly big thank you to the Equality and Diversity team who provide the setting overall for the kind of work which is done at the DRC. It’s been a fascinating hour or so and I know you’d want to join me in thanking the speaker. It’s been a very very fascinating afternoon Ross and we look forward to seeing your work develop in the future and I know you’d want to make a further contribution for us. Thank you very much indeed for your lecture.

[Applause]