Series 6 Episode 3

[00:00:00] Hello and welcome to episode three of the sixth series of *In Ten Years Time*, I am so grateful you are here. I'm Tricia Duffy and I'm here with an aim to inspire you to live a creative life, to find a balance of creativity that works for you and to make your creative dreams a reality. I am really excited to get going with this episode, but before I do, let me take a few seconds to talk to you about what makes you, the listeners of *In Ten Years Time,* special.

Many shows these days rely on big backers or ads to keep them afloat, but I self-fund the podcast because I believe it brings me closer to my dream of living a creative life. I'm sure that this is something that resonates with you too. I'm running a campaign to cover the costs of the next series. So if you would like to become a monthly donor or make a one-off donation, you'd be building on the [00:01:00] ethos of this show and supporting another creative. Please visit my website www.intenyearstime.com/donate to contribute, and thank you.

In this series, we are thinking about the science of creativity, about what's happening in our brains when we engage in our craft, about how we might be able to use our creativity to improve our health and wellbeing, and how creativity can heal.

I want to explore how having a craft or artistic practice can support us as we age and think about what it means to be creative in the context of neurological differences. I will explore social narratives and myths about our brains and try to sort the facts from the fiction. Researching this series has been both enlightening and challenging. I hope it opens your mind and your heart to embrace the creative person you are and always have been. [00:02:00]

Today I want to talk about the different sides of our brain and what that might mean for our creativity. I don’t know about you, but I've always had this idea that right-brained people are freethinking creatives and left-brained folk have their heads in the details.

Well, I'm afraid that this has been completely debunked as a myth by neurologists and neuroscientists. As I mentioned in episode one, anatomically we have a left and right hemisphere in our brains. The left side is usually responsible for language and mathematical processing, and the right side is more involved in spatial understanding and creativity.

New things, novelties and learning are processed in our right hemisphere, and when they become thoroughly known or familiar, they're taken over by the left. With this in mind, it is our right hemisphere that is inherently open and can consider an array of possible solutions, whereas our left looks for the [00:03:00] most likely or known piece of information and latches onto that.

I started researching this episode with a hypothesis. That there might be things we could do to enhance the relationship between our left and right brain hemispheres to improve our health and our creativity.

All of these episodes start with some sort of thought experiment that I then seek to explore and I can categorically say that this has been a difficult episode for me to research, probably *the* most difficult episode in the life of *In Ten Years Time*. Why? Well, because there is an abundance of myth, unqualified opinion, and pop psychology out there. So my biggest challenge has been sifting through this and getting to the bottom of what's real and what's just a story.

This episode distils what I found from trustworthy sources, and I will indicate wherever possible the things that are unproven or unlikely to have an impact. I am not a medic or a scientist, but I've spent [00:04:00] a lot of hours fact-checking this episode so that you can have confidence in the findings. However, scientific research continues to grow. So I encourage you to continue asking questions about this topic.

As Iain McGilchrist says in his excellent book on the topic, *The Master and his Emissary*, meaning emerges from engagement with the world,

not from abstract contemplation of it. Much to be taken from this thought as we dive into the episode. So let's get started.

I think we need to dispel some of those myths about left brain and right brain people before we get too far into this episode, but I want to do that by talking about handedness. I think many of us have long presumed that right-handed people are left brain dominant and left-handed people are right brain dominant. That is to say the left-handers out there are all freewheeling creatives, whereas us right-handers are doomed to creative insignificance.

Well, that's absolutely [00:05:00] untrue. As I mentioned, I've had to unlearn some things that I believe to be fact in researching this episode, and perhaps you will too. One thing I had to unlearn was thinking that the brains of left-handed people were wired the opposite way round to right-handed people.

This isn't actually true. The scientific community estimate that for three quarters of left-handers, that's around 9% of the population, the activities carried out by the left and right hemispheres are exactly the same as for right-handers. The remaining quarter of left-handers, so around 2% of the entire global population, will have what is usually in the left hemisphere happening in the right and vice versa. An opposite profile, if you like. And a very, very tiny number of people will have a mixed profile. If you are listening to this and you are left-handed, or you know someone who is left-handed, I want you to take a minute to think about what you've believed to be true until this moment and just process what [00:06:00] I've told you.

This absolutely blew my mind and more on the topic of handedness in a minute. As we discussed in episode one of this series, our brains are incredibly complex and many parts of the brain are responsible for different functions in our thoughts and bodies. The left part of the brain is generally responsible for movement on the right side of the body and vice versa.

However, to believe that one side of the brain exclusively manages these functions is over-simplistic and simply untrue. Iain McGilchrist who I've mentioned already uses a helpful metaphor to bring this to life for us. If one hemisphere is the surgeon and the other is the scrub nurse, the outcome for the patient is better with both.

While it is possible that the surgeon could act alone and you might get a result, it is with great risk. And likewise, the nurse's attempt at surgery might go okay, but it's likely to be even more risky. We need both our nurse and our surgeon working together [00:07:00] for good results. So too, we need both hemispheres. To live, to process information, to make decisions, and to create and innovate.

So let's just get back to handedness for a minute though. Amazingly, there is a way to scientifically determine your dominant hand via something called the Edinburgh Handedness questionnaire. I found this fascinating. It's used by universities and research centres to establish the baseline right or left-handedness of the individuals they're researching or experimenting with. I'll include a link to the questionnaire in the show notes if you would like to do it yourself. It's a very simple tool, but interesting nevertheless. The questions ask which hand you prefer to use for different tasks, offering you four choices. Left, right, no preference and the option to tick 'sometimes use the other hand'. The tasks include things like writing, drawing, throwing, using scissors, brushing your teeth, using [00:08:00] cutlery, striking a match, and opening a box.

I did the test myself and I got a laterality index of 10th decile right-handed, which if you look at the questionnaire, you will see is definitive. I'm right-handed. To be fair, I didn't really need an evaluation to know this, but it is intriguing nevertheless. For me, the degree to which I'm right-handed is particularly extreme. You could say that I'm a hundred percent right-handed. This surprised me given that I do actually rely quite heavily on my left hand to play the guitar and the piano. Even so, all the pop psychology and myths I've heard for a lifetime rushed into my brain, and I felt almost a little ashamed of being so right-handed. A

strange reaction perhaps. But the western world is so predominantly right-handed I feel a responsibility to anyone who favours the left to feel accommodated.

And then I jumped into thinking about what this dependence on my right side, and [00:09:00] therefore the left side of my brain for my physical control, might mean for my cognitive health. I found an interesting study from Japan conducted in 2021, which explored how quickly a non-dominant hand could be trained to use chopsticks for the purpose of rehabilitation in people who are required to change handedness because of accidents or the impacts of stroke. If you've ever tried doing something like using chopsticks with your non-dominant hand, you will have no doubt found it very difficult.

There are some schools of thought that suggest that left-handed people might be able to adapt to the impacts of a stroke if the stroke site has impacted their dominant side. Because the world is so right-handed, they can sometimes use both hands more ably. However, right-handers need not be concerned. The study concluded that individuals who scored more than 70% right-handed on the Edinburgh handedness scale could improve [00:10:00] non-dominant chopstick use and gain a similar performance level to that of their dominant hand in just six weeks. Using chopsticks requires a specific combination of handedness and complex fine motor skills. The researchers monitored brain activity to support the study and found that the cortex is responsible for the coordination physically changed during the six weeks. Once again, I find myself amazed by the speed at which our brains can develop and adapt.

Other studies support these findings, investigating hypothesis which included exploring whether it was the way information moves between the hemispheres that's responsible for the improvement on the non-dominant side. What they actually found was that the improvements come from stimulating and using pathways that were always there, just in a dormant state.

I used a similar metaphor before in the first episode but I'll draw on it again. It's a bit like [00:11:00] having two pathways in a forest to a lake. One is open and well-trodden by walkers and animals, offering a clear route. The other is overgrown and hidden. As soon as the deer and the hikers start to use the other path, the ground compacts, the bushes and the trees respond making space and creating a solid route, the same thing can happen in our brains.

So if we accept that we can train our non-dominant side and create neural pathways, is this good for our long-term cognitive health? Well, as I mentioned in the unfortunate event of an injury to the brain, being able to do things both handedly could certainly help us adapt. When it comes to less dramatic impacts on our long-term cognitive functions, there may be more benefits, which include improving our memory, helping with our balance and gait, all things we all need to rely on in the future as we age. So yes, it's likely to be good for [00:12:00] my long-term health, but this all feels quite theoretical. I don’t know about you but I think I need some short term benefits too.

So let's explore a story that does the rounds from time to time. The one that says that we could be healthier if we all brushed our teeth with our non-dominant hand. I tried this the first time I saw that story a few years ago and found it excruciatingly difficult. I was jabbing my gums with my toothbrush and taking way longer than the two minutes it usually takes me to brush my teeth before I go to bed. I kept it up for about three nights, and then jacked it in. Life is too short I thought.

If I had kept the practice going for six weeks like the chopstick study, perhaps I would've had different results and found the whole thing less frustrating. In this context though, left hand toothbrushing in the short term can feel like the opposite of doing me good. And while the science speculates that this activity would grow the necessary pathways to allow me to have similar dexterity in my [00:13:00] left hand, that's a skill I can probably do without, unless I'm unlucky enough to get an injury that stops me from using my right hand to brush my teeth. So I'm not sure that it's worth the bleeding gums.

In the context of our creativity though, doing some things with our non-dominant hand can have some immediate, tangible benefits both cognitively and creatively. So let's go through a few of them now.

First, unless you are completely ambidextrous, doing something with your non-dominant hand can really slow you down, and we all need to slow down. Yes, I know this can feel deeply uncomfortable, and I'm a huge advocate of the practice of just taking five minutes to do something creative, but slowing down any activity at all is good for your health.

Dr. Teodora Stoica, postdoctoral fellow at Arizona University investigates brain connectivity changes in aging. [00:14:00] In an article for Psyche Magazine she talks about the societal obsession with speed and how good mental health relies on a harmonious balance between what neurologists call the executive control network and the default mode network to prevent burnout.

I talked a little bit about this in a previous episode on sleep Linked to that episode in the show notes, if you would like to revisit, Dr Stoica offers a metaphor using music performance to describe the oscillation between these two states. The executive control network is making things happen in many regions of the brain, both the left and the right to complete our tasks. Think of this as the orchestra playing. Then there is an intermission. The conductor and musicians leave the stage. The house lights come up for, as she puts it, ‘a mental break’. The default mode network kicks in and allows us to briefly escape [00:15:00] into our imaginations. The point she makes so eloquently is that this intermission or interval doesn't in any way interrupt the performance when it resumes, and it is being able to move between both states that enables us to increase our creativity, mindfulness, and psychological health. I'll put a link to this lovely article in the show notes. It's hard to slow down so as a device, taking a moment to do something with our non-dominant hand may just offer us a deliberate way to have an intermission and grasp all the benefits that come with it.

The second benefit is of course, that you might happen upon something creatively amazing! Being curious about what might happen if you pick up a brush or pencil with your other hand could lead you to exciting new ways to create. Maybe you will stumble upon a brush stroke that inspires you or find that holding your camera with your non-dominant [00:16:00] hand offers you a new perspective on an object or perhaps dancing leading with your non-dominant foot opens up creative expression and somatic resonance in your body you couldn't otherwise access. There are some artistic activities that are pretty difficult to do with the opposite hand or foot on face value, such as singing. As a singer myself, I experimented with other things I could do to challenge this assumption.

I tried breathing exercises lying on my side and leaning over a chair, and they opened up parts of my diaphragm I find it hard to access sometimes, so again, all beneficial. If you can't move side to side. Try upside down or back to front and see where it takes you.

The third benefit I thought about is perhaps a little more tenuous, but I will tell you my thinking anyway. As we heard when we talked to disability advocate, Sarah Johnson back in the second series of the podcast, society is extremely ableist. Trying to [00:17:00] manage life with my left hand as a right-hander was really tricky. Now, I'm sure this might be similar for any left-hander trying to undertake tasks with their right hand, though of course society is built for right handedness. But it gave me an insight into the daily challenges faced by somebody who perhaps isn't that manually dextrous or has to take a little bit longer to do tasks. Something that I think it is always a good idea to remind ourselves of. A link to the episode with Sarah is in the show notes.

The fourth benefit is of course, to get ourselves out of a creative rut. This is articulated by artist Emma Jane Lefebvre in a YouTube video where she started to paint with her non-dominant hand. Her motivations came from feeling as though she was creatively stifled. So this experiment with her left hand was a way to push herself out of her comfort zone and have some fun.

She takes us through all the decisions she needed to make. Should she [00:18:00] create on some scrap paper so she could throw it away or include the work in her beloved sketchbook? She talks about how she is feeling, how wrong it felt, even just holding the brush in her left hand.

She labelled the work ‘left hand challenge’ so she could keep a record too. The first thing she notices after the discomfort is how much slower she's working. Usually a very fast artist she has slowed right down. Now, she's quite self-critical in the video, but also repeatedly states ‘This is art. This is perfect!’ Because art is perfect in and of itself.

Her experiment was brilliant and the results were different for her, but still fabulous. Link to the video in the show notes if you want to take a look. All in all, the experiment gave her new creative motivation and made her slow down too. Two benefits in one. The other thing that is absolutely obvious in her video is that despite her [00:19:00] protestations and discomfort, she is clearly having a lot of fun. She's laughing with us as she creates, and you see in real time how she has a bit more abandon and play-like quality. So that's dealt with the motor skills and handedness quite nicely, but there's way more to it than this.

There is a philosophical element that we need to address. I mentioned Iain McGilchrist at the beginning of this conversation, and what a fantastic example of lifelong learning he is. A literature scholar who later researched philosophy and then pursued medicine to train as a psychiatrist and research neuroscience, his exploration into the impact that brain hemisphere thinking has had on society, history and culture is fascinating.

In researching this episode, I delved into his book *The Master and his Emissary*, and a fair warning, it's a pretty heavy book to decipher. I started with the paper version and [00:20:00] then resorted to the audio book because I find the nuances of a book being read to me easier to understand when the language is technical or highly academic. Top tip, if you find this difficult too.

Despite being grounded in science, this book is a philosophical statement. He tells us that the left brain is more detail orientated, while the right has greater breadth, flexibility, and even generosity. He suggests that the ultimate human experience relies on cooperation between both detail and big picture despite living in a society that routinely dismisses ambiguity. We favour left hemisphere characteristics of easily articulated unambiguous 'facts' and McGilchrist suggests that left brain thinking has become dominant in our culture, particularly in the west. Societal success is characterised by analytical, detail oriented and [00:21:00] rigid views of reality that prioritise quantifiable facts over subjectivity and values.

In relation to creativity, which is inherently subjective, and as we have discussed many times, the efficacy of which is hard to measure, it comes as no surprise to see how this left-brain worldview has caused a reduction in opportunities, funding, and prioritisation of the arts.

This has been a slightly longer episode than usual. Thank you for sticking with me on this journey into the hemispheres. I'm sure you have much to contemplate. So with that in mind, I think it's a great moment to stop and offer you a challenge, a question, and a recommendation.

The challenge is this. Do something creative with your non-dominant hand. Write the alphabet. Paint a picture or play a one-handed piece of music afterwards. Take a moment to think about how it felt. Journal on the exercise. I'm permitting you [00:22:00] to use your dominant hand for that bit. Probe deeply about what came up for you before, during, and after the experiment, and ask yourself questions about what those revelations might mean. Did it slow you down? Were you impatient? Are you admiring of your outputs, frustrated, or was it fun? The question is this, do you have handedness bias? I mentioned earlier in this episode that my own views and pre-convictions about being right-handed are very strongly ingrained.

This is a useful way to think about ableism in a soft way that's accessible for us all. Perhaps you are left-handed and have been convinced that

somehow this has impacted your personality or your creativity because of the stories we've been told about this since the sixties. Perhaps the opposite is true for you and you believe you have acted logically because of your right handedness.

Does knowing that personality traits are not connected to your handedness give you an opportunity to be more [00:23:00] creative or indeed more organised, to leave behind some narratives that don't serve you? You are creative, you always have been, regardless of which hand you hold your pen in. And the recommendation is this, to either read or listen to Iain McGilchrist's book *The Master and his Emissary*. I have also left a good summary in the show notes. The reason I want to encourage you to explore this book is because it's fascinating. It highlights how easily the media can pick up on half-truths and myths and give them weight, and because at its heart, it's both a scientific and a philosophical book that can open our eyes and our minds to a growth mindset, asking us to question things we have taken for granted for a lifetime.

Next time I want to talk about creativity and dementia. The Alzheimer's Society tells us that one in three people born today will be diagnosed with [00:24:00] some form of dementia at some point in their lives. What might creativity offer in the context of such a huge public health threat?

Until then, please engage with the conversation on Instagram or Facebook. Sign up to my creativity newsletter on my website. Join me at a workshop, and if you know somebody who might benefit from everything we've been talking about today, please just open up your phone right now and text them a link to this episode.

I suspect they will appreciate it as much as I will. Until next time, keep creating and learning. Peace and love.