



# Immediate Inspiration

Max Planck scientists cooperate with partners in around 120 countries worldwide. Here they relate their personal experiences and impressions.

Empathy researcher Esther Kühn commutes back and forth between the Leipzig-based Max Planck Institute for Human Cognitive and Brain Sciences and University College London. She finds this cooperation to be extremely fruitful.

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Anyone who occasionally lands at a bustling airport like London's Heathrow knows how much the modern world connects us to people – or at least it seems that way. Business travelers rush to meetings – they stumble, jostle each other and apologize. Grandparents who have traveled from far away carry grandchildren in their arms. Lovers wait for a special someone who will soon walk through this sliding door, and who, perhaps, was away for too long.

But how do people actually form these connections with each other? Which regions of our brain are active in this process, and how? This question has a long tradition in empathy research, and it has been my companion for some time. To be precise, I'm particularly interested in a tiny sub-aspect: What happens in the brain when a person is touched? And what happens when that person merely observes another person being touched?

To answer these questions, I went in search of suitable connections with other researchers. The right device, a magnetic resonance scanner, is already available at the Max Planck Institute in Leipzig, as are the right subjects. While they lay in the MRI tube, I stroked their fingers with a paintbrush – or they watched films of the same movement being carried out on another person. But this experiment generated huge quantities of data, and accurately interpreting this data is a great challenge.

Fortunately, during an initial term as a visiting researcher in England, I met my colleague Patrick Haggart from University College London. Then when I was in Leipzig and occasionally got stuck, we discussed it over Skype, sometimes even outside of working hours. And



**Esther Kühn**, 31, studied biology in Münster before completing her master's degree in neuroscience in Otago, New Zealand between 2007 and 2009. Back in Germany, she conducted research as a doctoral student at the Max Planck Institute for Human Cognitive and Brain Sciences in Leipzig until 2013. With the aid of a grant from the German Academic Exchange Service (DAAD), she spent half a year at University College London (UCL). She returned to Leipzig and, since 2014, has been a member of Arno Villringer's Department of Neurology. There, she is a major contributor to a strong cooperation with UCL.

together we considered how best to handle my data. At some point, he said: "Wouldn't you be able to answer your questions better if you used my colleague Martin Sereno's program here in London?"

Of course! And since then, I spend a couple of months each year in the British capital. Now one might think that, in London, I need little more than a computer and a full coffee cup, but that's not quite right. I sit in my office together with Martin, who is known as Marty, and I draw a lot of inspiration from speaking directly with him. It's a great advantage! After all, he's a renowned neuroscientist, and the program we work with is his "baby."

I have since even come up with new ideas that have nothing at all to do with my original project. That's a tremendous advantage for a junior scientist. It's also a huge boon for me that my colleague has just as much energy and enthusiasm for my project and spends so much time on it before speeding home on his racing bike in the evening through the rather bicycle-unfriendly streets of central London. For me, it's then time to go to Pilates, or to my sword-combat class. After all, who wants to spend all day in front of the computer monitor?

I've now spent a total of just over a year in London. And even though, as a native of Leipzig, I consider myself to be spoiled in terms of cultural offerings, London is an incredible step up. The city offers me every opportunity, and sometimes I'm almost overwhelmed by the cultural choices available. Just recently, I again attended a number of concerts and a classical ballet performance. Nevertheless, it really did take me quite a while to find my place here. London is a logistical challenge, and it's changing so fast. As an example, even today, I can't estimate how long I'll need for any given route – I'm simply always late.

When I arrive back at Leipzig/Halle Airport after my adventures in London, everything feels much smaller. I'd say, compared with London, Leipzig is my living room. My home. But I've changed, and I'm full of new ideas. And even if my future research location hasn't yet been entirely decided, I'm sure of one thing: my future in science has begun.