

HOLGER SPERDIN



Just like psychiatrists and basic researchers, psychologists are keen neuroscientists. And so too is Holger Sperdin, a research associate in Marie Schaer's laboratory and a member of Synapsy.

Why did you choose psychology as a way to access neuroscience?

I was curious to know how our nervous system works, so I tried biology. But I stopped after a year because the training focused too much on molecular biology. At the time, I realized that it was brain functioning and the human side that fascinated me more than the mechanistic aspect. So I did a degree in psychology at the University of Geneva while working in parallel with children with developmental difficulties. I followed up with an advanced diploma (DEA) in experimental cognitive psychology and a thesis in neuroscience at the laboratory run by Micah Murray and Stephanie Clarke at the CHUV.

What is your specialist area?

My specialty is EEG! I started during my DEA then did it for my thesis. I carried on with a project on subliminal perception with Théodore Landis at the HUG. It was a bit of a crazy project, and we developed a digital tachistoscope for it –a device that allows you to show subliminal images to a subject. We've used the tachistoscope to identify the neural correlates of subliminal perception and shown that the brain responds to visual stimuli as fast as a quarter of a millisecond.

Is it difficult to use EEG on children with autism?

It is more the fact of working with very small children, from 15 months to five years, that's tricky. I had to learn how to work with them, whether they have autistic traits or not. EEG is very hard to carry out because children balk at it, so we had to come up with special strategies, including an imitation EEG kit that we call the "magic cap". This means children can try it out at home using photos of the staff so they get used to their faces.

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Tonia Rihs from the group headed up by Christoph Michel has helped us a lot with this side of things and the development of the project.

What are your career plans now that the study is over?

I'm carrying on my research with Marie Schaer; since 2017 I've been working half-time as a clinical psychologist at the consultation center specializing in autism. I diagnose patients and offer support to families. This clinical work is fascinating and gives me new ideas for research. The opposite is also true: research helps me quite a lot with my clinical work because my knowledge of the literature means that I can bring a more complementary approach to parents.□

*Interview by Yann Bernardinelli – November 2018
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