

## Highlighting Research: An Interview with Johannes Jungilligens

Interview with Johannes Jungilligens, PhD  
By Alexander C. Lehn, MD

Johannes Jungilligens is a clinical neuropsychologist and affective neuroscience researcher at the University Hospital Knappschaftskrankenhaus Bochum in Germany. His research focuses on neuropsychological and affective aspects of functional neurological disorder. He investigates the role of emotions, interoception, and metacognition in patients with functional neurological disorder using behavioral and neurobiological assessments.

You might have heard his excellent recent journal club on his paper "A new science of emotion: implications for functional neurological disorder" [[www.fndsociety.org/index.php?url=members/member-resources/webinars#Jungilligens](http://www.fndsociety.org/index.php?url=members/member-resources/webinars#Jungilligens)]. How does a normal week look like for Johannes, how did he get interested in FND and what is he researching...



### **Tell us about your background: Where are you from? Where do you work?**

I am a neuropsychologist and neuroscience researcher from Bochum, Germany, working at the Department of Neurology in the University Hospital Knappschaftskrankenhaus Bochum.

### **How does a normal week look like for you at work?**

My work is about 50% research and 50% clinical work, with some additional teaching. In my clinical work, I mostly do neuropsychological evaluations of patients – mostly focusing on patients in our pre-surgical epilepsy program, but I also work with patients with dementia, Parkinson's disease, brain tumors, and other neurological disorders. Importantly, our epilepsy patients include many patients with functional seizures and, in the larger neurological setting, many patients with other functional neurological disorder.

During my research time, I work on a number of projects, mostly focused on the pathophysiology of functional seizures. Within these research projects I also supervise masters and PhD students, which I really enjoy. Recently, I have also taken on a new role as the research coordinator for our neurology department, which allows me to better integrate the different lines of research and help younger colleagues get started as early career researchers.

### **How did you get interested in Functional Neurological Disorders?**

My interest in FND was sparked during my undergraduate years, when I worked as a student assistant in the Epilepsy Monitoring Unit at the same university hospital where I'm still based. It was in this setting that I first encountered cases of functional seizures, which I found fascinating. This initial curiosity turned into a master's thesis – which was also the beginning of my collaboration with my colleague Stoyan Popkirov in this

field – and ultimately led me to pursue a PhD, focusing on the role of emotion in functional seizures. A postdoctoral fellowship in the group of Prof. David Perez at the Massachusetts General Hospital/Harvard Medical School further developed my commitment to the advancement of FND research.

**Tell us about your research in the field of Functional Neurological Disorders. What have you been working on? What are future projects you are planning?**

My research focuses on the neural signature of affective and metacognitive processes in patients with functional seizures. I strongly believe that the integration of different methodological approaches and different levels of measurement is necessary to adequately study conditions as complex as FND. Therefore, I use neuroimaging, physiological data, experimental behavioral paradigms, clinical data, patient interviews, and self-report questionnaires to better integrate the different aspects into a single picture. In the future, I would like to better understand what happens at the pathophysiological level at the very onset of a functional seizure and how we can use this to help patients better manage their symptoms.

**In your opinion what do we have to work on to improve diagnosis and treatment of patients with FND in the future?**

It is often said, but it is simply true: research on and treatment of FND must be interdisciplinary in order to do justice to the complexity of the disease. In addition, research must be methodologically innovative and creative in order to accommodate each patient with FND despite the great heterogeneity.