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In Lieu of a Foreword: An Interview with Anne Löchte

Anne, how did you get the idea for this issue?

A I'm responsible for career counseling at the Berlin School of Mind and Brain (M&B), and doctoral candidates often ask me: What can I do once I've finished my doctorate? Of course examples from your own graduate school are the best. We now have more than 70 alumni.

Mow did you select the interviewees?

A I wanted to show the diversity of opportunities there are after a doctorate, both in and out of academia. Often doctoral candidates are very insecure about their career plans. The alumni I interviewed also went through periods of uncertainty and exploration. It's reassuring to see that these are entirely normal phases, and that they don't last forever; people find themselves doing well in jobs they had never thought possible.

Are there lessons to be learned from the interviews?

Absolutely! Of course every career path is different, but I think the essential thing is: How important it is to know yourself well. What am I capable of? What am I interested in? What motivates me? And then: Getting to know the field, talking to people, trying it out. The majority of positions are filled via networks and recommendations, only about one quarter through job advertisements. You notice that in the interviews too – how important personal contacts are. And a healthy dose of pragmatism, not insisting on starting out in a leadership position, not letting every setback get you down. In general a lot more is possible than many people think.

Mow did you find your own current job?

A I too went through some twists and turns. I studied German literature, history, and philosophy. After my doctorate and a postdoc in Canada I realized: I don't have the passion for the hard slog through a career in academia. I like working with people, I like carrying out projects, I like application more than research. That's how I came to scientific management. Eventually I found my calling – career advice for young researchers.

Is there anything else you would like to tell us?

A Yes. It is very important to me that doctoral candidates know that careers outside academia can be very attractive – depending on what their passion is. A doctorate is a qualification that leads to many different career options. •



"I have flushed two years down the toilet"

Philipp Kallerhoff is founder of Protos Asset Management, a financial advisory and asset management firm focused on the blockchain sector. He studied engineering and management, psychology and physics. As the first M&B graduate, he completed his doctorate in 2008 in computational neuroscience at Technische Universität Berlin. After his doctorate, he started to work as a Quantitative Analyst at a bank. Visitors to his LinkedIn profile can view a long list of positions in Germany, Japan, Switzerland, Canada, and the USA, amongst them four as a co-founder of companies.

- Philipp, you completed your doctorate in 2008 at TU Berlin in computational neuroscience. Do you still remember the title of your thesis?
- (Philipp thinks about it for quite a while and tries various different formulations until he finds the right one) It was "Processing of expected values in human visual cortex". We looked at how information is processed in the visual cortex and in computer models. My thesis was based on a game that participants had to play. You could solve the game perfectly if you calculated the probabilities. We looked at how these probabilities are already processed in primary visual cortex.
- Is your doctorate related at all to what you are doing now?
- A The experiments, no, but the methods, yes.

In what way?

A What I've been doing for the last 10–15 years is mainly signal processing and trading strategies for financial markets, so we are no longer trying to understand and model information in the brain, but instead information in financial markets. We can then derive trading signals from the model and develop investment strategies.

What plans and ideas did you have during your doctorate?

A I already worked for an investment bank in Berlin during my doctorate. I worked there as a developer for trading strategies because I had a background in machine learning. At first they just wanted to know how these machines could be used in financial markets. Now of course years later everyone is doing it. At the time it was very new and they didn't know how it worked. I received an offer of work there straight after my doctorate and I took it up.



What are you doing now?

At the moment I'm doing the same thing, but working in different markets. There are lots of very different financial instruments, for example shares, bonds, currency, raw materials. In the last 15 years I've worked and traded in all sorts of markets. I have always worked in teams developing strategies. These strategies are then implemented in automated trading. At the moment I am working on strategies for cryptocurrencies, like bitcoin.

O In preparation for our interview I took a look at your LinkedIn profile, and I counted nine different positions since finishing your doctorate. Among them four as founder. What drives you?

A It was really more just opportunity. In most cases somebody invited me to be co-founder, or there was a client who wanted a particular product and told me about it. Then we did some design thinking and thought about what market might be interesting, and what product might be interesting in that market. I am basically a quantitative analyst and I work a lot with data. There are lots of applications for that at the moment.

O Did you ever toy with the idea of staying in science?

A Yes, definitely. I teach at the University of Zurich in the Quantitative Finance program and I try to publish several times a year.

So you still have one foot in the science camp?

A Yes, I do a lot of research. I have built up a good network across many universities and research units in companies. I have regular exchanges with them and we publish together.

Mow do you feel today when you look back on your doctorate?

(A) I have to admit, the end of it was really tough. After two years there was a crunch, when the results didn't fit the experiments, and we practically had to start all over again. That was a difficult time, because I started thinking: This doctorate will never go anywhere, and now I've flushed two years down the toilet. On the other hand my supervisors helped me out and we got a couple of good results. It was a great time, and having the stipend from M&B was great. I found it fantastic not having to do teaching like the others. I got the opportunity to work at the Max Planck Institute in Leipzig and to carry out experiments there. It was a time when I was very strongly intrinsically motivated and wanted to understand things.

What did you learn above all during your doctorate?

A I would say I learned to work independently, acquire knowledge for myself, and I learned a certain self-confidence, how to present myself.

If you now think about your new company: What should a fresh new doctoral graduate who wants to join you bring to the table?

A They need entrepreneurial skills. They can't expect someone to tell them what to do. Everyone who works with us does their own thing. Nobody tells you to be here at nine and stay until five. There are always consultations, but each person is responsible for themselves. Independence is very important, keeping yourself very well-informed, otherwise you are just slow. Specialist knowledge is almost unimportant for me, it's much more about the methods and way of working.

Is there anything else important you want to say about doing a doctorate?

A My doctoral studies gave me a lot in terms of methods, and I learned a lot. On the other hand it didn't particularly help me find a job. It didn't harm my chances either, but I think the main thing was that my doctorate was important for me personally.

Philipp, thank you for the interview! •

"I am a researcher at heart"

Vera Ludwig studied psychobiology and cognitive neuropsychology and did her doctorate in psychology on the topic of impulse and self-control. She has worked as a trainer for harmonious willpower, self-care and mindfulness for several years, in addition to being a postdoctoral researcher on willpower at Charité Berlin and the Berlin School of Mind and Brain. She is a certified teacher of yoga and Affect Regulation Training. Vera also has a YouTube channel, where she currently interviews experts on Tantra, sexuality and relationships, and where she shares her experience of completing a yoga teacher training in India (» www.youtube.com/c/ludwigvera and » www.veraludwig.com).



"I completed my doctorate in 2013, on the topic of impulses and self-control, and the question of how hypnosis may help in selfcontrol situations. Then I led Prof. Henrik Walter's 'Volition and Motivation' team at the Charité for one year, with whom I investigated the neural correlates of willpower. I found this very interesting, but I was also interested in subjective experience in its own right. How does our willpower, our mind, really work? How can we strengthen it? I found few answers in science.

Then in my free time I happened to discover tantra and yoga. I realized, wow, this is really something practical, they give us advice on how to train your mind and become calmer and happier. I was so fascinated with it, I got involved in it almost full-time. I attended every possible course, I learned various breathing and meditation techniques and mindfulness exercises.

At that time I no longer had a job, and was working as a freelancer, teaching psychology at a college. I had the opportunity to become a professor there, but I felt that the time wasn't yet right. Instead I went to Wangerooge, an island in the North Sea, and even worked for a short time as a waitress. I lived there for several months and gave workshops on yoga, self-love, willpower, mindfulness. I found it very fulfilling. At the same time I was noting down ideas for studies and writing funding applications. It had always been my idea to combine the topic of tantra and Yoga with research. I am a researcher at heart.

After Wangerooge I again learned a great deal about tantra and about Kashmir Shaivism, an ancient tradition from India. Vijñāna Bhairava Tantra is a scripture from this tradition containing many meditation techniques for everyday life. For example, it even proposes how you can focus your mind when you sneeze, what you can do to have an experience of enlightenment in that moment, or when you are dancing, or eating ...

After that I received a postdoc stipend from M&B for one year, and was able to investigate the topic scientifically. M&B was very generous, I was able to give many presentations and to stay as a visiting researcher at the Positive Psychology Center in Philadelphia, where I continued my investigations into tantra.

At the moment I am self-financed. I give workshops, now also on the topic of sexuality, which tantra also addresses. I want to help people lead a more fulfilling life. If a fairy came and granted me a wish, it would be to lead an amazing tantra research institute in a tropical location. There would be tantra courses, but also research into brain and behavior. It is very important for me that these things be scientifically investigated.

What I like best about my work is that I have a lot of freedom, I get to go to really beautiful places all the time, I can talk with interesting people, and I learn new things.

What I like least is that I have to take care of finances, I have to advertise myself, and maintain my public image. Sometimes it's frightening, because it's a new path. There is no trail that I can follow, I have to make my own.

But I love what I do!"

Shortly after the interview, Vera was offered a position as a postdoctoral researcher at the Mindfulness Center at Brown University in Providence, USA. Congratulations!



Interview with Dr. Thupten Negi in India, 2018, on buddhism and sexuality

"My biggest talent: Grabbing things from the top shelf"

Thorsten Kahnt is Assistant Professor of Neurology, Psychiatry and Behavioral Sciences at Northwestern University Feinberg School of Medicine in Chicago, USA. His lab focuses on neural and computational principles of human learning and decision making, with an emphasis on odor-guided behavior. He studied psychology at Freie Universität Berlin and completed his doctoral thesis on neural mechanisms of reward learning and decision making at Humboldt-Universität zu Berlin in 2011. From 2011 till 2014 he was a postdoc at the Laboratory for Social and Neural Systems Research, Department of Economics, University of Zurich.



What I find most interesting about my research \dots

... is the power of our sense of smell.

I would be happy if my team would say about me that ...

... I am a good mentor.

What I especially like about my research group is ...

... that each person brings in something unique.

Tenure Track is ...

... tenure track is tenure track.

Thinking of my time at м&в, ...

... I had no idea what was lying ahead of me.

The most important thing I learned during my doctorate is ...

... that it is possible to overcome challenges that seem impossible at the time.

As a teenager I wanted ...

... to see the new Quentin Tarantino movie.

Now, I want ...

to see the new Quentin Tarantino movie.

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In the near future I really want to ...
                     ... visit Japan – good thing I have my ticked booked.
The biggest challenge in my career is ...
                             ... to only worry about the important things.
Striving for a career in academia means ...
                                        ... that you'll get paid in freedom.
Currently, I am occupied with ...
                                                         ... grant writing.
What makes me cry: ...
                               ... the current state of the us government.
I love ...
                          ... seeing students grow and develop in my lab.
It totally annoys me ...
                     ... that nobody knows how to pronounce my name.
Obviously, my biggest talent is ...
                                   ... grabbing things from the top shelf.
Obviously, my biggest weakness is ...
                             ... never having enough legroom on a plane.
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I am relieved that I am not asked in this interview ...

... to comment on my PhD advisor.

What the Swiss typically associate with Germany is ...

... mediocre cheese and mediocre chocolate.

Since Donald Trump became president ...

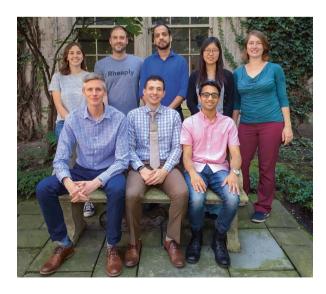
... I'm considering moving back to Europe.

What I appreciate about the US are ...

... the opportunities and freedom given to junior investigators.

Chicago is ...

... probably the greatest city in the us.



Thorsten with his group

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The biggest difference between Germany and the US is ...
                                              ... the public transit system.
In my free time ...
                                ... I like spending time at Lake Michigan.
When visiting Germany, I realize ...
                          ... that there are essentially no water fountains.
In another life I would ...
                                        ... be an environmental engineer.
In case I meet a fairy godmother one day, I ...
                                              ... will go see a psychiatrist.
I had to come to the US to ...
                                            ... live up to my full potential.
What I would like to mention is ...
                                  ... that I am always looking for talented
                                          future lab members. Follow us
```

on Twitter » @ KahntLab.

"I used to be scared that my dream would be shattered"

Caroline Szymanski studied neuroscience and medical neuroscience in Cologne, Paris, Berlin und Milan and started her doctorate in 2012. Since then, she has also been part of the core team of the Hasso Plattner Institute Schoof of Design Thinking in Potsdam and has been working with companies on topics like customer centricity, Design Thinking, iterative innovation processes, and team work. She finished her doctoral thesis on the neural mechanisms of teamwork in 2017, and founded a Design Thinking Consultancy (» www.kandoee.com). Sounds confusing? Read the interview!

(The interview takes place in Anne's office. It's summer, it's hot, and Caroline is seven months pregnant with a big belly. She starts by drinking a glass of water)

Caroline, you are a teacher, trainer, and coach for Design Thinking. How can we structure this interview according to the principles of Design Thinking?

(Caroline looks at me with a hint of exhaustion on her face)

A I would have sat outside in the garden.

Okay...

(We are sitting in the office, not even a potted plant in sight)

A Yes, really. Because the space is really important in the Design Thinking philosophy; it's important to use the right space for different kinds of work. I really really like being outside. In Potsdam at the Design Thinking Institute are workspaces outside.

So let's imagine we're sitting outside among all the greenery ...

Another slightly different principle, a really cool one actually, is that you bring along objects that are important for your work. Or you could get me to draw something, not just working analytically, but as an intuitive process ...

@ Great. Would you like to draw something on the flipchart here, on the topic of "my career path"?

(A) I'm not very good at drawing, but then that's not what this is about

(Caroline stands up, and is now looking a lot more lively. She takes hold of a pen and gets right on with drawing. She explains as she draws)

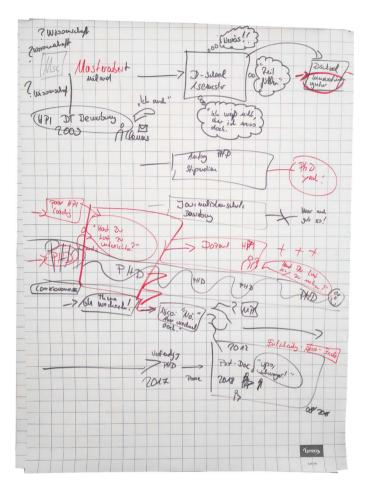
So, what was it like for me back then? ... Already during my masters I had always thought about whether I should stay in academia or do something else. And then a friend said there's this Design Thinking Institute, it was just a coincidence. Back then in 2009 the institute was completely unknown. I went to the recruitment



day, and didn't know what to make of it. And Clemens, a physicist, was also there and had the same thoughts: "Is this good, or is it just playschool?" I had already decided to do my masters project in Milan, so I couldn't do the Design Thinking training at that moment anyway. Then Clemens was really enthusiastic about the training and kept telling me about it and so I thought, okay, I want to do it too.

Then I finished my masters project and started the Design Thinking training program afterwards. The training program takes place two days a week and in the first semester there was an intensive phase. There were a lot of thoughts going through my mind – How should I draw that? It's a bit difficult. (Caroline starts drawing intently) What should I do? I need to do something with the other three days and I've no idea what!

Then I started dedicating all my free time away from the D-School to writing my application for doctoral positions and stipends. Then I did an acting course for one month in New York, and when I came back I did the second semester of the D-School. During that second semester I did an internship at an innovation agency, because the agency belonged to one of my teachers and he offered me the internship and I said straight away: "Cool! I'll do it!"



Caroline's drawings on the flipchart

In the meantime my application to м&в had been accepted ... I started to work on my doctorate, and Claudia, the director of the ны, asked me: "Would you like to do some teaching?" Yes, so I had this Design Thinking thread and the other thread is my doctorate. At the start it was the larger thread and then over time it got smaller and smaller. I had started to think about giving up my doctoral studies, quite often ... but in the end I was glad that I hadn't, since it's not such a disadvantage, there being so few people in Design Thinking who have a doctorate, and especially on the topic of teamwork ...

(Some further biographical details are given in summary here for the sake of brevity: A nearly successful application to journalism school, a change of topic and supervisor for the doctoral thesis, switching to social neuroscience, as well as a year with a permanent position at the Design Thinking Institute alongside doctoral studies, and then finally a freelance job as a coach for the D-School also alongside doctoral studies ...)

Now we have reached the present day?

A That was up to last year. That's when I submitted my doctoral thesis. While I was preparing for my defense presentation I thought it would be a shame to stop working in neuroscience, and I thought: I'll do half a year as a postdoc. Then I became pregnant (she draws a pregnant woman with a large belly) and I thought: I'll give up the time for the postdoc, but not for my projects. I realized then that I had already decided for a long time what I really wanted to do. I stopped working in neuroscience. Two months ago. Right, and now, 2018, we'll see what comes along. And so we see (Caroline points to her initial drawings on the flipchart) the beginning looks really nice, then you notice I should have used two different colors, for the two different threads.

What do you think when you look at your career so far on the flipchart?

A I think about how often there were moments when I didn't know where things would go next ... you can't predict what will happen, how one thing leads to another. It's incredible.

Would you like to sit down again? I'd like to ask you a few more questions. What do you like most about your work?

A That I'm in contact with lots of people.

The least?

A Introductory methods workshops that last an afternoon or 2 hours. It makes absolutely no sense, companies just want to get a quick look, you do that just for the money.

Your greatest weakness?

A I get a lot of things mixed up ... it's all clear to me but for other people not so much.

Your greatest strength?

A The teams and students that I work with say that I always ask the right question at exactly the right moment.

- If you learned something during your doctorate, what was it?
- (A) Perseverance.

Is there a final something that's important for you to say?

(A) In retrospect, what I've noticed, also through Design Thinking: There is no perfect solution. There are several solutions that are good. Likewise it's impossible to come up right away with the perfect business idea. You will always make mistakes, unexpected things will happen. So I develop a quick first prototype, test it, and learn what goes wrong. Then I can proceed. I used to be scared that my dream would be shattered. That's really silly. If something goes wrong: Your dream is shattered, but then along comes a new dream, all by itself.

Caroline, thank you for the interview and all the best for you and for your child. •

Caroline is now mother to a baby boy – our warmest congratulations!

"I was on a high for months"

Timo Stein studied neuro-cognitive psychology and psychology in Munich. Princeton and Mainz. He did his doctorate on unconscious visual perception at Humboldt-Universität zu Berlin. After spending some time in Italy cycling up and down the Italian Alps and investigating top-down effects on vision, Timo moved to The Netherlands where he is an assistant professor in brain and cognition at the University of Amsterdam. With no mountains in sight, his cycling speed has significantly increased, such that he can use the time he has saved for getting more tattoos.

- Mello Timo! How is the weather in Amsterdam?
- A The sun is shining here!
- What do you see when you look out of the window?
- A If my blinds weren't down because of the sun I would be looking out onto a lush green lawn where students are lying down, and behind it Amsterdam, with its characteristic waterways, one of the newer canals.



Your resumé looks great. Doctorate in Berlin, then several years of postdoc in Italy, then a professorship in Amsterdam ...

A Well, 'professorship' sounds rather grand ... I'm an assistant professor. Here in the Netherlands university academics are called 'prof' only when they become 'full professor', and all of those are over 50. An assistant professor has something more like a German W1+ position. And no, my resumé over the last few years hasn't all been so great. Up until the end of my doctorate in Berlin it was, but then there were some ups and downs.

Tell us about it.

(A) After my doctorate I went to Italy for a postdoc, to work with a former colleague and friend of mine. We had met in the USA, and then he got a professorship in Rovereto / Trentino in Italy. That postdoc period was very difficult for me: My relationship with my girlfriend started to break down, I wasn't happy in this small northern Italian town, and I entered something of a crisis in my own research work. I wasn't sure whether my research topics were really relevant, whether we were even making any progress, whether I was good enough to achieve something worthwhile in the field ... and in addition some of the projects were not going as well as we had hoped.

Mow long were you in Italy in total?

A Just under four years. Of course that doesn't sound really so terrible, but it can become a big problem for a researcher if they start to doubt the value of their own research.

I can imagine. So how did you find the position in Amsterdam?

(A) I actually wanted to return to Berlin and apply for an Emmy-Noether grant to lead a junior research group, but the deadline for applications came right at the time of my crisis, so I found it difficult to put together a convincing 5-year research plan. So instead I looked to the job market, and one of the vacancies was this position here at the Universiteit van Amsterdam. The advantage of this position is that it is a permanent position. The disadvantage is that it comes with hardly any research funding, so you are dependent on third-party funding.

What do you think convinced the interview panel to take you on? There must have been a lot of applicants!

A Yes, there were loads of applicants. I think it was four factors:

1. Publications and success getting third-party funding (my stipends, M&B, DFG, Marie Curie) 2. Compatibility with the profile of the Brain and Cognition Group, where I now work 3. My age / how long ago I finished my doctorate. I was relatively young so I could apply for

many of the junior research funding packages, for example ERC starting grant, and 4. international experience – many other good applicants had only ever worked in the Netherlands whereas I had already worked in a few different countries.

Mas it changed your way of life after all these stipends finally having a permanent position?

Absolutely! In particular the contrast between the insecurity of my postdoc stipend slowly running out in Italy ... then the move to Amsterdam – I was unbelievably happy, really on a high for months.

What is your main research topic – in everyday terms?

At the moment I am dealing with the question of whether there is unconscious visual perception, and if there is, how complex this unconscious processing is. So whether visual stimuli that reach the eye but are kept invisible by the use of certain methods are still processed, i.e. influence behavior, activate the brain, and so on.

What proportion of your time do you spend on research?

About 50% research and 50% teaching.

Please complete the following phrases: What I like most about my job is ...

(A) ... that I can follow my own interests and share them with good students.

What I like least about my job is ...

A hmm! – I'm thinking!

Oh, that's a good sign. I guess you have the perfect job.

A Haha, right? ... the persistent pressure to succeed despite slim chances of success (grants!)

The biggest challenge in starting my new job was ...

A ... putting together a complete lecture series within a month despite having no teaching experience

Most beautiful word in Dutch?

(A) Lekker!

This is what we can learn from the Dutch:

(A) ... to be more confident, more open, more relaxed, more positive! And there are lots of flat hierarchies here, or even no hierarchies.

② Timo, you are a wise man and a professor (whether assistant professor or whatever − for me you are a professor). What advice can you give doctoral candidates who want to stay in science?

A My beard is growing! ... Well, I think it is important to go somewhere new after your doctorate, to work with new people, and ideally to work in one field, to build up a reputation in that field and to become associated with something in particular. Ideally do as much research as possible, and little or no teaching, turn all your data into published articles, and get used to the fact that selection for job positions is very focused on performance, whether you like that fact or not.

And to finish a look ahead:Your ideal future involves ...

(A) ... living by the canal here in Amsterdam, coasting along by the sea on my bike in summer, and discussing some crazy ideas with doctoral candidates – or returning to wild Berlin!



Timo in front of a university building on Roeterseiland

"I want to help people to develop their potential"

Sarah Gierhan studied linguistics, psychology, and art history in Heidelberg and Freiburg im Breisgau. She finished her doctorate at the Max Planck Institute for Human Cognitive and Brain Sciences in Leipzig and at the University of Leipzig in 2012, on the topic of language networks in the brain. She took up brief postdoc positions and a job in a consultancy firm, until becoming project manager at the Hertie Foundation. As of 2017 she is scientific project leader at the Else Kröner-Fresenius-Stiftung. Alongside her job she works part-time as a consultant and coach for projects with social impact, job questions and careers. Sarah has two small children and lives with her family in the Rhine-Main area.

O Hi Sarah, where are you at the moment?

(Some noise over the telephone connection) I'm standing on the shore of Lake Constance and it's a bit windy ... I'm in Lindau, at the Nobel Laureate Meeting.

And what are you doing there?

A On the one hand I'm representing our foundation, because we support the meeting financially. And on the other hand as a conference participant I can learn here for myself as well.



You are project leader at the Else Kröner-Fresenius-Stiftung. How does one get to that position?

Actually, I have to start one step back, because I followed my boss here from the Hertie Foundation. So the real question is: How did I get my job as project leader at the Hertie Foundation? Normally you apply for advertised positions at non-profit foundations, but back then I made a spontaneous application, and got a job.

What do you think convinced your boss to hire you?

A I think I offered a complete package. My boss once referred to me back then as a comprehensive "Swiss army knife" employee. In general it's always good for an applicant if they fit the organization's topic areas. For example, the Hertie Foundation has a "neuroscience" topic area, and that was a point of contact for me. In addition, methodological, social, and personal skills are important, as is personality.

What are the decisive skills?

A First of all, you have your own projects and are relatively independent, depending on the hierarchy. So it's important that you be able to work independently and take on responsibility, to think in terms of the bigger picture, and be responsible for a budget and manage a project. Also, you have to be able to lead other people.

What are your tasks at the Else Kröner-Fresenius-Stiftung?

A I currently have two projects. The first is a call for proposals for a center for clinical research. Three quarters of all departments of medicine in Germany have applied. I am overseeing the call for proposals, the review process, and the final selection. I mean, I won't myself select the winner, but I will put together the jury of reviewers and coordinate the whole process.

And the second project?

A The second project concerns hospital hygiene in Germany, which we want to improve. We came up with the idea of creating something digital that motivates the doctors and nursing staff, independently of time and location. I am currently trying to work out what that could be. I'm reading up on the topic, talking to people, getting to know the topic, organizing workshops.

What were your responsibilities at the Hertie Foundation?

A I was mainly responsible for the » dasGehirn.info website. It's a website that explains the brain in an intelligible and entertaining way for laypeople. It was a project with a budget of €360,000 per year, with a small team, where everything to do with organization landed on my desk, and also everything to do with continuing development, overseeing the technical side of things, public relations, fundraising, ...

- Please complete the following sentences: What I like most about my job is ...
- (A) ... that I can make a difference.
- What I like least about my job is ...
- A ... the more bureaucratic aspects, like writing minutes.
- For me, the biggest challenge in going from my doctoral studies to starting work was ...
- A ... finding a job.

O How did you meet this challenge?

A Indirectly. I first worked at a business consultancy. It wasn't difficult to get a job there, but it wasn't the right thing for me. It took me a while to realize what fits my nature better. Then I applied to the Hertie Foundation and I met with success. In retrospect it was a challenge I met really well, but it was a challenge nonetheless.

What advice would you give doctoral candidates who want to work at a non-profit foundation?

A First, they should find out what foundations are out there and where they would best fit in. Because the chances are best when you have some link to the actual topic. It's a sector that a lot of people want to get into. The second is: Ideally you should do an intern-

ship there during your doctoral studies. Another thing you can do is: Go to the Deutscher Stiftungstag and just talk to people there. Lots of very intelligent and friendly people work in the non-profit sector, and they are happy to help.

What did you learn during your doctorate that is useful for you now?

A Definitely the ability to organize myself. I was always very good at that, but I still improved. I also led many student assistants and interns. That's something you can show: That you are good at organizing yourself and others.

When you contemplate the future of your career, what can you still look forward to?

(A) I hope that I will be able to put more emphasis on the things that make me happy. I'm a qualified coach and enjoy to support people who have to make career decisions. There are people who have great potential, not necessarily academics or scientists, but people who want to accomplish something, carry out a meaningful project or an idea that will have an impact on society. I like to support them with my project management knowhow. If I had to give the whole idea a slogan: I want to help people with potential to develop that potential.

Sarah, many thanks for the interview and all the best for the future! •

"I broke through my mental block"

Jan Stamm studied philosophy, linguistics, and business studies at the University of Dortmund, the Humboldt-Universität zu Berlin, and Nottingham University. In 2013 he completed his doctorate in philosophy on the topic of personal autonomy. He now works as a freelance trainer and coach in academia. Jan lives with his wife and three children in Dortmund. If the day were a few hours longer he would like to read, write, and play more.



② Jan, imagine this: We don't know each other, I'm a potentially useful business contact and we happen to be in an elevator together. You have 30 seconds to introduce yourself. What do you say?

A I have a doctorate in philosophy and I'm a trainer. I work with all sorts of people involved in academic research: doctoral candidates, postdocs, professors. I help them organize themselves and their research work more effectively, and to reduce their stress. My work centers around personal contact with people.

What gave you the idea to become a trainer and coach?

A I had already been considering that career path during my studies, but then I moved away from the idea again ...

Mow did you first get the idea?

A I was thinking about what my strengths are. And one of my strengths is that I am good at making contact, building up relationships, and getting quickly into meaningful, personal conversations. So I was interested in careers that involved a certain way of working with people. Originally I thought of work as a coach of some kind. I hadn't yet distinguished all the various possibilities.

But first you did your doctorate.

A doctorate was the obvious thing for me, and also I suppose I didn't think about alternatives all that earnestly during my studies ... a doctorate was just the natural continuation of what I was already doing, and of what I enjoyed doing. But then eventually comes the question: What next?

So what happened next?

(A) There was a key moment for me: There was a mentoring program for doctoral candidates at the Humboldt Graduate School, and the question came up of future career choices. I had thought about three options: Academia. But I didn't find that so spectacularly attractive. Instead, I considered areas in which I didn't have so much experience. One of them was journalism, the other was what I was calling 'coaching'. Then I spoke to the coordinator of the mentoring program. I voiced some of my doubts, and I said:

I won't be able to get into coaching anyway. She said: That's not true. Of course you can get into coaching. That was an important moment for me. I made a bit of a psychological breakthrough. A lot of positive thoughts and emotions returned to me.

And then?

A I sought out a coach to be my mentor, and I started asking around all the people I could think of in consulting, coaching, training and so on, asking them whether they would meet me over coffee. And so I started to test the waters and over a short period of time I had many conversations. I got a better idea of how the field works, and I found out that training was what I first wanted to do.

Then you trained part-time as a trainer.

After I broke through my mental block things moved very fast. I spoke to the coordinator in February, when I made my breakthrough, and then in April I started studying to become a trainer. In June I was already shadowing trainers at workshops and in November I gave my first independent workshop.

O How relevant or useful is your doctorate for your current work?

A In terms of the content of my doctorate, hardly at all ... I wrote my thesis in philosophy on the topic of the autonomy of persons. What was most important was learning to think.

Learning to think?

A Learning to differentiate. One of the important qualities I bring to my work is that I can break questions down into their individual aspects and then say which aspect I want to focus on. The feedback that I get is that people get a certain clarity and context that they hadn't seen before.

What is a typical working week like for you?

A I give workshops at universities and other research institutes. For example I might arrive on a Sunday, give a workshop Monday and Tuesday, for example on timeand project management. Tuesday evening I get back home. Wednesday morning I have a bit of time for admin work, then set off again Wednesday afternoon to give another workshop on Thursday and Friday. Friday evening I'm home again.

You have three children aged two, five and seven. What do your children think you do at work?

A Something like traveling on a train ... (Laughs) They know that I help other people somehow. I think they imagine it like teaching a class at school.

What do you like most about your work?

A The people that I get to meet. What I always find fascinating is building up a relationship really quickly and listening to what is really important to people. We discuss things like time manage-

ment too, but a lot of it is about how I can lead my life, where do I want to go with what I'm doing, not just about work.

What do you like least about your work?

A Being away from home. When I am giving a workshop I don't see my wife and children much.

If I gave you a million Euro what would you do?

A Reduce my working hours and spend more time with my family. And finish writing that children's book I started!

Is there anything else that is really important to you?

A I think it is important during your doctoral studies to think about what you can really do well. Unfortunately, doctoral candidates often think they can do a lot less than they really can. They end up thinking of themselves in a certain way. If you can get beyond that and open up, so many things are possible. Things don't always work out 100% but you don't have to take the very first job that you can get.

And your own career is an excellent example of that. Thank you for the interview!

"The privilege to access human beings in all their complexity"

Lia Sanders is a professor of psychiatry at Universidade Federal do Ceará, Fortaleza, Brazil. She studied Medicine in Fortaleza and did her doctorate at the Charité Berlin on the topic of schizophrenia and visual perception. Lia has always been passionate about literature and visual arts. She has published a novel and exhibited her artwork in Brazil.



My doctorate at м&в

Learning how to plan and conduct complex clinical studies was very important for my career as a clinical scientist. The years devoted to research at the Berlin School of Mind and Brain, under the supervision of Philipp Sterzer, taught me a lot about science. It requires a lot of patience, persistence and humility. Nature is not going to adjust to your hypotheses just to please you. At some point in your investigation, you will need to stop, take some distance, and think the whole problem anew.

My doctoral research topic

We found a connection between an inability to predict visual events and the development of delusions in patients with schizophrenia. Our studies added to the evidence showing that a fragmented view of the world may be at the core of delusional symptoms in schizophrenia.

Why I do what I do

I became a medical doctor because I like to study and solve problems. I have interests that go way beyond Medicine, but I have never been able to quit clinical work entirely. What keeps me in Medicine is the privilege to access human beings in all their complexity. In the end, all my activities are expressions of the same interest: people. That is what drives my curiosity and ties my paintings, texts, research articles, lectures and clinical work together.

After my doctorate

After finishing my doctorate, I decided to do medical residency in Psychiatry in Brazil. At that time, I felt like I would never be able to fully understand the intricacies of the human mind and complex diseases such as schizophrenia. I thought I would be more useful in Latin America, as a medical doctor. I also believed it would be easier for me to devote time to painting and writing in my home country. To my surprise, research caught me again. I have joined a research group that is developing new pharmacological approaches to psychiatric illnesses. Our preclinical and clinical results are very promising. Last year, I was appointed to a professorship at the Federal University of my hometown, Fortaleza. There, I have the opportunity to do research, teaching and clinical work.

Combining arts and medicine

I am now trying to conciliate my work as a psychiatrist with my work as a visual artist. This year we will start an art school for psychiatric patients and medical students in Fortaleza. Our idea is to offer art therapy and artistic training, promote the humanization of medical practice as well as the dialogue between therapists and artists on the therapeutic aspects of art.

Brazil – Germany

I love Germany, I even married a German, but I feel like I make more sense in Brazil. In Brazil we still have to deal with issues that are inconceivable in Germany, such as urban violence, huge social inequality, an underfunded healthcare system, corruption. But I like to solve problems and my work here has more social impact than it would ever have in Germany. At this moment, Brazilians are very disappointed with our economic and political situation. Middle and upper class people are always complaining and talking about leaving the country. But two hundred million Brazilians cannot just go elsewhere. Brazil will never mature as a country if we keep pretending to have nothing to do with its problems. I might come back to Germany for a year or two (my husband misses his home country), but I feel too attached to this mess called Brazil to leave it entirely.

Soccer

Ok, let's talk about the 2014 7:1 match! We used to be very proud of our soccer, almost as a compensation for our serious deficiencies as a country. At the 7:1 match, our pride just collapsed. Shortly afterwards, there was a series of political issues that culminated in a huge economic crisis that lasts until today. We are still very passionate about soccer, but it is just not possible to hide our reality behind it anymore.

In a different life ...

... I would be a physicist. I would spend my life pondering the universe and abstract issues that are far away from our human imperfection ... Something like that ... Just to change. •

"If you mess up today, it doesn't matter tomorrow"

Radoslaw Martin Cichy (Radek for short) studied cognitive science and medical neuroscience in Osnabrück, Oxford and Berlin. He completed his doctoral thesis on the representation of object identity and location in high-level ventral visual cortex in 2011. Radek then went as a postdoc to the Massachusetts Institute of Technology (MIT) in the USA, before returning to Berlin at Freie Universität in 2016 as leader of an Emmy Noether junior research group. He has a son (one year) and lives with his family in Berlin.

Radek, can you give me a layperson's explanation of the topic of your doctoral thesis?

A It was about how the human brain mediates vision, in particular how we perceive objects. For any object in the world, we want to know what it is and where it is located. In my thesis I wanted to understand how the human brain represents the what and where of objects. I investigated this using fMRI and multivariate pattern analysis methods.

What is your current research about?

A tits heart it is still about visual perception and the visual brain. That is what I care about.

O Together with Myriam Sander you are one of the first M&B graduates to become a M&B faculty member. Things have come full circle. How does it feel to be on the other side?

(A) It's too early to tell, since I haven't taken up any active responsibilities as a faculty member yet. What has changed is that I am no longer the doctoral candidate, instead I have doctoral candidates in my lab. Based on my experience at м&в I try to actively support them. Some of them need formal training, others need a network, others again need lots of freedom. One good thing about M&B is that doctoral candidates can interact. I think it is healthy if people aren't just sitting around in my lab but instead talk to doctoral candidates from other labs, get a realistic impression of how their projects are going, what the stress level in other labs is, what different styles of supervision there are.

Q Looking back: What was helpful for you during your time at M&B?

(A) In my time particularly important were the many great speakers. At one point I myself invited Nancy Kanwisher from міт to an event [Berlin Brain Days 2009, The Editor]. I think there was going to be a poster presentation and speakers had to be invited, so we needed somebody to take care of all that. I wrote her an email and asked whether she wanted to come. And she said: "Yes". That was an important stepping stone for me. She was here, I was able to show her my data, she got to know me. She didn't have any jobs to offer herself, but she knew someone who did. And that's how I got my postdoc position.



So you had this first contact. And then when you had finished your doctoral thesis, you contacted her?

(A) Exactly. It was already clear that I wanted a job, so she took a look at my work, had the chance to check its quality, and then asked me some questions about what my next steps were going to be. I showed her everything, but she was not that impressed. Given that she has also rejected candidates who later became Harvard professors, I could tell myself I was in good company. It was a very valuable experience in any case. And she had me from then on stored away in her memory as someone who did such and such and who might be useful later on. She had a colleague at the Computer Science and Artificial Intelligence Laboratory, and that's how I first got in contact with Aude Oliva, who supervised my postdoc. These people get lots and lots of job applications a day, and having someone they know putting in a word for you helps a lot. The stay at Aude Oliva's lab turned out to be crucial for me.

O How long did you stay in the USA?

(A) About three years.

How is scientific research in the USA different from in Germany?

A In many ways, from the perspective of a postdoc. The usa and MIT in particular are of course quite special. In general, the pace is different. I arrived on Monday and the first question was: What will we scan by Friday? Here in Germany you arrive and you get to know people and then after a month you meet and discuss what direction to take. In the usa things were immediately at 150%.

Then, you get lots of trust in advance and support. In my case, my PI only ever asked me: What else do you need? More money? More scanning time? More of anything? I never had to beg or go into lengthy explanations, I got all I ever needed, and more.

Finally, the communication system is very flat rather than hierarchical. In discussion whether you're a bachelor student or a professor, it doesn't matter. Your ideas are the only thing that counts. There is a very open culture of communication.

My personal problem coming from Germany was that I was shy or reluctant to talk, and I was rather used to avoiding showing the gaps in my knowledge. I completely gave up that way of thinking while I was there. Fully acknowledging when I did not understand something immediately, rather than looking it up later, helped me tremendously. Much easier living, much faster progress.

Are there other differences?

(A) If you mess up today, it doesn't matter tomorrow. There are also disadvantages. The human side of things doesn't matter as much. There are lots and lots of people who keep on going through this revolving door ... but on the other hand you get a fresh chance every day. Then, the general attitude is that you always have to be revolutionizing the world, whatever you're doing it always has to be groundbreaking, outstanding. That has its advantages too, because you don't have to do so many small, incremental projects, you can look at the next big challenge instead. I miss that sometimes, that you can just think: Okay, how can we make the question as big, as interesting, and as challenging as possible? How will we change the world? And not: How can we make the question as small and as manageable as possible?

What would you like the doctoral candidates that you supervise to say about you?

(laughing) Good question. I'm still working out how exactly to position myself. As a basic value, I'd like them to see me as fair and approachable. That's a good foundation to build on. I try to be as available as possible, to answer as quickly as possible.

- O How much have you had to compromise when choosing the direction of your research?
- (A) Not at all.
- So you've pursued what you are interested in?
- (A) Yes.
- O Is there some advice to be had from that? As in: "Do what you are interested in, and it will bear fruit"? Or is it just a happy coincidence that it worked out like that for you?
- (A) It's probably 80% morbid perseverance and 20% luck. If you start doing things you do not really care about, you have to spend a lot of time on this, and that's very frustrating. Career prospects in science are so bad, and the pay also isn't so good, and all the other disadvantages you have to put up with in comparison to other jobs are so big that there is no other justification for doing science other than that you just want to do it for yourself. That doesn't apply every day, but as a basic principle anything else seems irrational to me. That does not mean one does not collaborate and seek out new topics. It's that the perspective is of taking opportunities, rather than conforming or compromising.

- Magine a young scientist comes to you and says: "You succeeded in getting an Emmy Noether junior research group. I want to do that too! What do I have to do?"
- (A) Likely the same as everybody would: You have to have published and you have to have started to develop your own direction, the path your research is taking. Then, if someone is at the start of her postdoc, I would say: Definitely go abroad. Not because it's so great there, but because you will experience something completely different. So you won't just believe that the way things are done is normal or the only way to do it. Because it isn't. It's very important to understand how different scientific research systems are, how people think and how they do science.
- O Do you get free time? If so, what do you do with it?
- A Yes. Free time is a relative concept. I have a small child, a son, who is 14 months old. That's most of my free time now.

- Such a small child, but you look very fit ...
- A Yes, I thank my girlfriend a lot for supporting me so well ... Before, I used to do a lot of sports, triathlon. I do a lot less now, but I try to keep up a base level. Sitting at a desk too much ruins your back and mood. It feels great to do some sport. Afterwards you can think more clearly.

Radek, thank you very much for the interview, and all the best with your research group. •

"I like the pressure"

Lyudmyla Kovalenko was born in Ukraine, and moved to the USA aged 15 to finish high school there. She then studied neuroscience and German at Smith College, before coming to Charité Berlin for the Medical Neurosciences masters program. For her doctorate in neuroscience she investigated how eye movements guide our attention and cognitive perception. After completing her doctorate in 2016 she started work at a business consultancy firm. She lives in Munich, where she is discovering her love for hiking and maintaining her love for yoga.

(The interview takes place in Berlin. Lyudmyla arrives dressed in an immaculate business outfit and carrying a roller suitcase, as she has an appointment with a client right afterwards)

Lyudmyla, lovely to see you!Tell us, what do you do for a living?

A I'm a management consultant for Siemens Management Consulting. As an inhouse strategy consultancy, we help Siemens tackle strategic and operational challenges and advise them on business development.

And you do that only for Siemens?

A Yes, the advantage of working inhouse is that we know the client company very well and can draw and build on experience from previous projects.

Can you give us an example of a project?

A I helped develop a ramp-up strategy for a digital platform business. Key questions concerned the organizational setup, partnering, customer access and R&D readiness of the product. Other classic project examples are for example cost reduction, where we aim to increase overall company efficiency. Due to my background, I had a particular interest in working at Siemens Healthineers, where I've done most projects so far. Overall, one gets to see a broad range of challenges.

Mow many hours do you work on average?

A This varies strongly depending on the project and specific phase. During crunch times one can easily work well into the night. On average, we work a couple of hours longer than an average employee.

And that's the norm for you?

A Yes, more or less. With experience, one learns to work more efficiently, but at the end of the day consultancies are hired to provide the man- and brainpower that will help the organization through tough times. This means jumping in for extra hours to get results.

Business consultancies that focus on strategy specifically recruit people coming from a doctorate. Why?

A Three things: Good analytical and structuring skills, patience and grit with solving tough problems, and in some cases also relevant industry expertise, e.g. chemistry, engineering. For example my client was pleased to find out that I knew Siemens MRT machines from the end-customer perspective while working at the Charité. Being able to relate to the client's business definitely takes the relationship to the next level.

You could say that business consultancy is the opposite of science: You can be promoted very rapidly and start earning a lot of money in a short period of time. What attracted you to business consulting?

(A) I went into consulting for two main reasons: project variety and people-intensive work mode. It was very important for me to get exposure to different types of businesses - I think having to focus on one key topic was something that had put me off a professorship track. At the same time, I wanted to work in a more peopleintense mode. Science projects can have lengthy phases of independent and at times lonely work. In consulting, effective communication, information sharing and stakeholder management are an essential part of daily business.

Consulting is very hierarchical. What level are you at now?

A I am at the entry level – Consultant. A basic team is composed of consultant, senior consultant and project manager, perhaps also an intern. This hierarchy in the project aims to leverage the experience and seniority of team members – typically, the consultant runs analyses, senior consultant gets first management experience by guiding the consultant, and the project lead manages the overall scope of the project. The setups can vary greatly from this basic model

Mow did you adjust to that hierarchy at first?

A It definitely took some getting used to.

I can imagine. Science puts a strong emphasis on independent work. What do you like most about your work?

A Most of all I enjoy discussions with clients that motivate them to think in a new way. I've had clients who have been in their job 20–40 years – a young consultant can hardly tell them anything radically new about their business. However, where we can bring a value-add is in challenging assumptions and helping discover blind spots in their thinking. It is very rewarding to reach a new insight when working together with the client.

Also, I enjoy deriving insights from data – running analyses and reaching conclusions is in fact not that different from what we do in science. In contrast to science, however, consultants typically have high pressure to formulate a business recommendation quickly, which forces us to run analyses in a very pragmatic and goal-directed way. In this context, I actually enjoy the pressure, because it drives me to work efficiently.

What do you like the least?

A The politics. Depending on the project and management level, some decisions are made along different criteria and rationales than in science. I am still getting used to that.

What was your decision process when you decided to apply to business consultancies after your doctorate?

Once I heard about consulting and understood that it could be a good fit, I started with desktop research. There are many online resources that describe the job and the companies. I also researched my network and arranged calls with friends and second-degree connections. The Career Day at the Humboldt Graduate School also put me in touch with several people. (Lyudmyla was one of the organizers) After five to seven conversations I had a clear picture of the job.

What happened then?

A When preparing my application, I reached out to my contacts for feedback. In general, the encouragement was to show a well-rounded profile; meaning, in addition to the academic expertise, any social or voluntary engagement or non-academic interests were important. Also, clearly understanding the personal motivation for the transition is key. That was probably the hardest thing for me, because I had the feeling I was giving something up.

You were giving something up? What was that?

A I felt I was leaving behind my ambition to become a professor. Coming from an academic world, where the trajectory towards professorship is perceived as the gold standard, I felt that I had fallen short of the goal. While coping with this thought was difficult and took a bit reflection, at the end it was the right decision for me.

O Is there anything else that is important for you?

(A) There's a tendency among doctoral candidates to be very critical of one's own usefulness, yet reluctant to explore it. This mindset seems almost unavoidable in the academic bubble. where almost everyone is clever and ambitious, yet also critical and often unpragmatic. This perfectionist cocktail often hinders active research for a good career fit. My encouragement here is to overcome the "analysis paralysis" and think about the career not only as a scientist, but also as a businessperson. Try to reach out to your network, set up informational interviews and get feedback. I think this process will help you get more confidence along with useful information about career options.

What job would you have had in another universe?

(A) Artist.

Thank you very much for the interview, Lyudmyla.



"Researchers come in all shapes and forms"

Ryszard Auksztulewicz has a background in cognitive neuroscience and psychology. His doctoral research focused on brain mechanisms of conscious somatosensation. After he finished his doctorate in 2013 he has worked as a postdoc at University College London and the University of Oxford. Currently, he is a Marie Skłodowska-Curie fellow at the Max Planck Institute for Empirical Aesthetics (Frankfurt) and City University of Hong Kong, working on cross-species mechanisms of prediction signalling in the brain.



Hi Ryszard, where are you at the moment?

A I'm currently a postdoc at City University of Hong Kong.

Wow! Why Hong Kong?

A It was a mix of personal and career-related factors. My partner moved here to pursue his PhD and I was looking for jobs in East Asia. I was considering several places, including Shanghai and Taiwan, where the neuroscience research is on average better than in Hong Kong.

And why did Hong Kong win out?

A Luckily, Jan Schnupp – a professor I had heard about in Oxford, where I did my previous postdoc – had just moved to Hong Kong and was looking for new lab members. His research interests match very well with mine – we're both interested in how the brain can learn and predict information – so it was an easy transition. At the same time, the lab in Hong Kong focuses on rodent electrophysiology, so I thought it would be a good opportunity to learn new techniques.

② You finished your doctorate in 2012 and after six months postdoc at M&B moved to London, to work at the Wellcome Trust Center for Neuroimaging.

A Since the beginning of my PhD, I knew that the WTCN in London was a great place – several professors I had the pleasure to work with in Berlin, including my supervisor Felix Blankenburg, did their postdocs in London and recommended it as a fantastic experience.

And how did you manage to land there?

A Karl Friston, who was my supervisor at the WTCN, is one of the most influential neuroscientists and I found his work really inspiring. Just after submitting my doctoral thesis I applied for a DFG Forschungsstipendium to go to London and I received the good news a few months later. By the way, I wasn't the only M&B alumnus from the Blankenburg lab to do a postdoc in Karl Friston's lab – Jakub Limanowski is there currently!

What happened after London?

A Working in London was a lot of fun but also relatively time-consuming, and I wasn't fast enough to apply for my own funding to replace the DFG fellowship. Fortunately, Kia Nobre from Oxford was looking for postdocs with exactly my research profile, and since she also wanted to collaborate with Karl Friston, we came up with a few studies that I could carry out based in Oxford but at the same time keeping my connection to the WTCN.

Mow did you like Oxford?

A I found Oxford to be an amazing place to work, with a great balance of excellent science and a friendly community, and I wish I could have stayed longer!

Q You were there when the Brexit referendum happened ...

A The climate around Brexit has triggered several of my UK-based colleagues to look for science jobs in other countries. My decision to move to Hong Kong wasn't directly related to Brexit but the context made it slightly easier. While the neuroscience community in Hong Kong isn't as big or vibrant as in London or Oxford, it is growing at an impressive pace – perhaps one of the few areas where Hong Kong has the same level of optimism as Mainland China.

You have lived and worked in so many places around the world: Kraków, Amsterdam, Berlin, London, Oxford, Hong Kong ... If you had free choice: Where would you work?

A It's a tricky question – if I could imagine a place, it would have innovative science of the kind I experienced in the υκ, but also good quality of life, which I definitely enjoyed while living in Berlin and Amsterdam, and the sense of vibrancy I get from East Asia. I think Berlin combines the three things very gracefully, so it would be a pleasure to come back for longer, but realistically I have to keep my options open.



View of Lamma Island from the rooftop terrace

Please finish the following sentences: What I like most about Hong Kong is

(A) ... that after a day of analysing interesting data and supervising students, I can hop on a ferry and go for an evening swim in the sea or a walk in the jungle next to my house.

The place with the best food is ...

(A) ... wherever has the best dumplings – so probably Hong Kong and Poland.

Imagine a child asking: "When I grow up, I want to be a scientist. What do I have to do?", you would answer ...

A ... stay curious and do whatever interests you the most! Researchers come in all shapes and forms – some like elegance and structure, others like complexity and spontaneity; some like people and stories, others like numbers and data; there is no recipe.

What I like most about my job is ...

(A) ... the diversity and collaboration – every day is different.

My happiest future perspective contains

(A) ... more of the same – it still hasn't got boring. If I could tweak one thing, I would move closer to my family.

You are a natural at learning new languages – I remember you learning German in no time during your doctorate. How about your Chinese?

A In the first month here
I learned around 200 words but
now it mostly boils down to saying
hello, thank you, and ordering
ice coffee with little sugar in all
the correct tones – Hong Kong
Cantonese has six.

What shouldn't I miss when I visit Hong Kong?

A Visit Lamma Island and have a glass of bubbly on our roof terrace!

Thanks for the interview, Ryszard! •

"We are a long way from equality"

Since 2014, Myriam Sander has been the leader of a Minerva research group in developmental psychology at the Max Planck Institute (MPI) for Human Development in Berlin. After her degree in psychology she wrote her doctoral thesis on the role of capacity and selectivity in age differences in working memory, and graduated in 2011. She was then a postdoctoral researcher at the MPI before becoming leader of the junior research group. Myriam has two children (six and three). She is the first alumna to become a member of the м&в faculty, in 2018, together with Radek Cichy.

Myriam, what are you doing at the moment?

(A) I have two roles. First I am leader of the research project "Cognitive and Neural Dynamics of Memory across the Lifespan." This is a position that I share with Markus Werkle-Bergner, with whom I have been working for many years and who also co-supervised my doctoral thesis. Then I am also the leader of my Minerva Research Group on Lifespan Changes in Memory Representations. It is an independent research group, for which I have my own budget. Two doctoral candidates and a postdoctoral researcher are part of my team.

Mow does one become leader of a Minerva research group?

A I was nominated for the Minerva program by Prof. Ulman Lindenberger, one of the directors of the MPI. I had published well during my doctorate, and won a prize for my thesis. That was a good start. My cv and publications were the basis of the selection process that involved various international reviewers. The Minerva program has now been discontinued, and there is now a new program for women, the Lise Meitner program, which works completely differently.

What are your responsibilities at work?

(A) My main task is research of course, I don't have any teaching responsibilities. I supervise doctoral candidates, postdocs, master and bachelor theses. Academia involves a lot more administrative duties than you realize as a doctoral candidate; for example, I am a member of the staffing committee and there are of course research meetings and all those sorts of events. Then there is a whole series of admin tasks, billing and budgeting and so on, that you have to coordinate. We have about 10 student assistants working for our project, and you are always writing job advertisements, interviewing, employing ...

What percentage of your time do you spend doing research?

A My own projects, without counting work with doctoral candidates, probably make up about 20 to 30%. Those are the projects that I work on all by myself. Of course when you are a project leader you carry out most of your projects in collaboration with doctoral candidates.

Was there for you a particular moment when you made a conscious decision to pursue a career in science?

A Not really. It's also not really the case that I have made a career in science yet. My position is a temporary one and is nearing its end. It's unclear what I will do next. I haven't yet made the decision 100%.

And if you try to imagine your ideal future ...

A Ideally, I'd like to continue as I am. (Laughs) I am in an ideal position. I have a lot of freedom regarding the content of my research and I can just pursue my own research questions, together with a great team. The conditions for research here could hardly be better. The facilities are outstanding, the colleagues are great, and there are lots of opportunities to interact with international research groups. It would be great if that could continue ...

Can it?

A No. At Max Planck institutes there are almost no permanent positions, except at the management level. So there is a change coming up for me, probably involving a move to a university or to another research institute. It's not really the case that I absolutely have to get a professorship. I would rather have a research position with a certain degree of freedom.

Are there role models who have followed that path that you can look to for an example?

(Hesitates, thinks) I recently met a professor at the FU who told me about how she combines her job with two children ...

Those are the positive moments when I think, yes, there are other women who go their own way and combine the two, but apart from that professor I don't know anyone.



② You notice it clearly in science: The higher up you go in the hierarchy the fewer women there are. The proportion of women in W3 professorship positions is only 19%.

(A) The Minerva program was a program set up for women, because the Max Planck Society had too few women in W2 or W3 positions. My impression is that the MPS works hard to ensure that many group leader positions for junior research groups go to women. But it starts much earlier: Undergraduates in psychology are mostly women, and among doctoral candidates there are still lots of women. At the postdoc level it is perhaps more or less balanced, but afterwards it just stops.

• How does it feel to be inside that system yourself?

(A) I think it's problematic. It is very clear that we are a long way from equality. That has consequences at various levels ... even when you look at the distribution of keynote speakers at conferences, or what sort of work gets cited, there is a bias that isn't easy to break through ... sometimes it's even your own fault, if the male collaborators in your project are at the forefront then it's selfreinforcing. We have a graduate school (not м&в) in which I am a faculty member. We organized a seminar and wanted to invite external speakers. We decided on the topics and thought about who it would be great to invite. And

then suddenly we found we had a list of only men. You have to become aware of it first ... then we thought of a woman alternative for each male speaker. They exist. And not worse ones either, but very good alternatives, they're often just not at the forefront of our awareness. I find that problematic and it is really difficult to fight against it. There are many reasons why women in science end their careers earlier.

What are the reasons?

A One is at the social level, the expectation that as a woman when you have children you won't keep working full-time but instead take it easy. But actually science is really well suited to combining career and family, because jobs in science are very flexible. But science is also extremely competitive, and all the others are working 40, 60, 80 hours. If you then only work 30 hours some weeks because the children are ill, then you are permanently in conflict, not being able to deliver enough at work but at the same time not spending enough time at home. And that's something that women tolerate less than men. That's one reason.

What is the other reason?

A The other is that women are often a lot less self-confident and can be more easily made to feel insecure about what they are doing. They more readily doubt that their work is good or important ... I have seen it again and again, when I watch presentations by male colleagues and I think: He sold that really well! (Laughs) A woman would have apologized ten times. But it is often the best women students who are extremely insecure about what they are doing.

Do you have a fighting spirit inside you?

(A) I waver between different feelings. I try always to tell myself that it shouldn't bother me. I should concentrate on doing what's good for me. I shouldn't let myself get discouraged. Sometimes I'm really just frustrated, I go from one extreme to the other. When it comes to fighting there is always the question. Well, when I see it in women undergraduates or doctoral candidates, I try to intervene and say: Come on, don't put yourself down. But at that system level you have to think about how much energy you want to put into it, because it's exactly that sort of thing that makes you as a woman less productive sometimes, because you have so many other side issues that you're fighting for. It's a balancing act.

Myriam, you have switched from one side to the other and are now supervising doctoral candidates and postdoctoral researchers yourself. How do you approach this position? What are your guiding values and what sort of a supervisor do you want to be?

(A) I hope that I succeed in giving my doctoral candidates the greatest possible freedom and independence, and that I support their own ideas. That's an experience that was always very positive for me, throughout my career: Nobody told me that I had to do something. I hope that I help them to stand up for the things that they do themselves. Something that I underestimated before, and which is very important, is contacts with other scientists and labs. I try to encourage and support that for my doctoral candidates, make sure they get to know people who are important in the field.

You have a daughter who will soon be 6, and a son who is 3. What do your children think you do at work?

(Laughs) Oh, my daughter, she knows best. Yesterday I was on television, and they had their Fanta and chips and watched mom. They are often at the institute. My daughter just participated in a pilot study and slept with an EEG night cap on for two nights. At the moment my son loves drawing pictures of brains. He is fascinated by them. They both have a basic understanding that things aren't just black and white, and that you can question things critically.

Myriam, many thanks for the interview! ●

"My daughter loves to draw on the walls in my office"

Nikos Green studied cognitive science in Osnabrück and cognitive neuroscience in Amsterdam. In his doctoral thesis at Freie Universität Berlin he investigated the mechanisms of perception in the human brain. He finished his doctorate in 2013 and founded – together with a team – his first start-up. Nikos has three children, is currently planning a new start-up and renovating a house. He spends a lot of time with his co-founders, his family and builders.



Nikos, what are you doing at the moment?

A Things are very exciting just now: Until last month I was at Flying Health. Starting in the autumn I will be working on something new. It might be another spin-off business idea, in collaboration with other people. We are currently designing and testing. I can't tell you any more at the moment.

So it's still a secret?

A Exactly. It's something in the healthcare sector, specifically in hospitals. But I can tell you about my previous job!

Please do.

A Flying Health Incubator GmbH (FHI) is a consultancy company. On the one hand it advises startups that have developed digital health services. On the other hand it advises health sector companies on digital health. My job was to test

the innovativeness and scientific evidence base of digital product ideas in the Science Lab, and also to develop my own ideas. FHI also looks at neuroscientific results to see whether they offer potential for digital applications, for improving diagnostics and therapy.

And if you find something interesting, what do you do?

(A) First of all we look at what already exists in that field, we consult with entrepreneurs and experts and see whether we can collaborate on something. Or we develop our own ideas and put together a product idea step by step. Then we find a team and things get started: Formulating a business plan, implementing a prototype, etc. And in the health sector of course there is also clinical studies, usefulness, effectiveness ... it's a very long process. That kind of project can also fail, as I have seen in my own experience.

Tell us about failure.

A The first project I was involved in came from science, in autism therapy. We already had some initial promising results and thought, okay great, the participants liked it, we'll go to health insurance companies and try to get things started. We had start-up funding from the EXIST program, for one year.

Sounds great.

(A) In theory it was, but autism isn't a huge economic problem for

the insurance companies. The potential application was too narrow, they don't invest a lot in that. We were told: see whether you can perhaps apply this technology to bigger problems such as depression.

How long did you keep trying?

After half a year of the initial funding phase we discovered that it just wasn't working businesswise. As a team we decided not to continue developing the product.

What did you do then?

(A) Back then I had been developing a related idea with a colleague. We wanted to analyze nonverbal signals in audiovisual data to estimate the severity of mental disorders. We first developed a program that analyzed these signals in a simpler context and then developed a digital behavior training program ... But I couldn't restrain myself, we steered the product too quickly towards digital health, with a very new technology and a very new topic, and German investors are very cautious about that sort of thing. We spent almost half a year talking to investors and then eventually decided to terminate the project.

What happened then?

I was offered a job at FHI, as scientist in residence. It involves working at a company on a project for a certain period of time. Many scientists have great ideas, but the question is: Will they work on the market?

② You are obviously very keen to found your own business. Do you have the entrepreneur gene?

A It runs in the family. My mother is an engineer and entrepreneur. From an early age I helped her out.

What do you find so appealing about founding your own business?

A I like to decide things for myself, together with others in a team. It also brings flexibility, which makes it easier to combine things with family.

You have three children. What do your older children think you do?

A My son, who is 10, would say: He does research with computers and people. My daughter loves to draw on the walls in my office. They are both happy that there is a machine with a limitless supply of drinking chocolate.

What makes a good entrepreneur?

Definitely patience. Maybe also a positive naivety. You have to be able to prioritize, to stay calm. Sometimes also to make decisions without knowing what the result will be. As scientists we already have many suitable qualities. What the startup scene calls lean business innovation and agile development is largely based on the scientific method. You formulate a hypothesis, test it, make changes, keep repeating this cycle until you have a working product.

Mow closely is your doctorate related to what you are doing now?

A Somewhat. During a doctorate you learn to work independently. And to find partners and identify sources of support. You also learn a craft. When I read an article: What are the important points? Is the method valid? What are the weaknesses? And I learned to recognize when I don't know enough: Who do I speak to? What questions do I ask them?

What is the biggest challenge for you?

A Coping with uncertainty and volatility. There are many crucial decisions on which the continuation or termination of the project depends. You have to be able to handle that. It can lead to pressure and stress. You have to find a good way of channeling it.

② Is there anything else you would like to tell us?

A If anyone is interested in my field, they can get in touch. I like making contact with people! I know from a scientist's perspective that scientists always want to make contacts with people in business, and I know that the desire is mutual. There are a lot of opportunities at the moment in the startup scene, in the health and digital sectors, particularly for cognitive scientists and neuroscientists.

Nikos, many thanks for the interview and all the best for your business idea! ●

"You can plan these bigger projects!"

Christine Schipke studied linguistics and Indo-European studies. She completed her doctorate in 2012 in neuropsychology at the Max Planck Institute (мрі) for Human Cognitive and Brain Sciences in Leipzig and the University of Potsdam on the topic of child language acquisition. From 2012 till 2014 she was a postdoc at the мы in Leipzig. She then shifted her focus to science management and has since been working as a scientific coordinator at the University of Potsdam.



I am scientific coordinator for the research topic Cognitive Science at the University of Potsdam. I am supposed to dedicate half of my time to research and the other half to science coordination. But usually the coordination tasks predominate. Nonetheless I still enjoy being part of research a great deal, supervising masters and doctoral candidates, going to conferences, and writing articles. In my coordination work I am responsible for the research focus, which brings together very different disciplines: psychology, linguistics, German studies, sport and health, philosophy, information technology, mathematics, education. The strategic goal is for people to win funding for and carry out large collaborative projects. I have a coordinating role at lots of committee meetings, I prepare the meetings, write proposals, take minutes, I try to be the link in discussions and in collaborations. I also have some much more mundane tasks, such as public relations or organizing our contribution to the Potsdam Day of Science. And I am responsible for the budget. We have set up a junior research group, and appointed a junior professor. All these things I took care of.

After my doctorate I stayed for two years at the Max Planck Institute for Human Cognitive and Brain Sciences in Leipzig as a postdoc. I found the rat race to become a professor a huge pressure. For me personally it was too much. During that time I decided to switch to science management. I had already noticed how much I enjoyed coordinating and organizational tasks. The career reorientation lasted about a year, also because for health reasons I needed a regeneration and recovery period. My start in science management was very positive. I liked the atmosphere a lot and found the social interactions much more friendly and cooperative. I find it a shame that if you don't stay in research after finishing your doctorate, it tends to be implicitly understood as a failure. I don't see it that way at all.

What I like about my job is the communication with various different disciplines and people. I value staying in touch with science. But I also like sometimes just sitting at my desk for a day and sorting out administrative tasks in peace. What I learned most of all during my doctorate was time management, organizational skills, how to work independently, and also a certain self-confidence, a belief that you can plan these bigger projects. I also learned how to work within the hierarchy of personnel, from student assistants up to the leadership. The specific topic of my doctorate is also very relevant. I come from a humanities background. During my doctorate I acquired a solid knowledge base in cognitive science and neuroscience, which is extremely important for my job. In the research focus all these disciplines are brought together, and at least I know what they are all talking about. I'm the connecting element of the team. •

"I walk around barefoot most of the time"

Florian Kornrumpf has a bachelor's degree in German language and literature and cognitive science and did his Master in language science and technology. He did his doctorate in biological psychology, on the topic of how we coordinate our eye movements during reading with processing what we see at the edge of our field of view. In his free time he plays the guitar and horn, does meditation and Tai Chi, and gives classes in computer programming at a democratic school. Florian lives in Berlin.

Florian, how would you explain what you do at work to a data-dummy like me?

A That's a challenge. I would say: I analyze data for my company that provide insight into whether what the company is doing from day to day really works, in order to develop an ongoing strategy for the company. In the age of the internet and advertising this mainly concerns questions like: How is my advertising being received on the internet? How can I get new clients?

What is the explanation for experts?

A I work as a Data Scientist/ Engineer/Analyst at a Berlin startup, with a focus on VPN and protecting the private sphere on the internet. As an engineer, I implement the automatic collection, cleaning, and preparation of the data. As an analyst I visualize data and analyze them according to the needs of the other employees. As a data scientist in larger-scale projects I use complex methods of analysis to get deeper insights into the data. As part of a very small company I have the opportunity to do all three of these separate jobs at once.

On a scale from 1 to 10, how happy are you with your job?

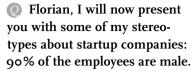
A Around an 8.

What would be a 10?

A I work at a startup, and in the startup world everything is very short-lived. In my current situation starting a family, a 10 would be a job that I knew would still exist in the long term.

It sounds as though you are very happy with the content of the job.

A Yes. I can identify with what the company is doing. But of course there is the risk that at some point I will have to work for a company where that isn't the case.



A Wrong! At our company it's 50–50. However, my wife works at a much more technology-oriented startup, and she is one of four women among 60 employees.

50% of the employees are from outside Germany.

(A) More!

You all wear flip-flops at work.

A Yes. I even walk around barefoot most of the time.

You address the bosses informally, with "du".

A Correct. But we speak English anyway.

Once a week the employees all get a massage.

A That used to be the case, but not anymore. That's the sort of thing that tells you how old a startup is. At the beginning there is suddenly a whole load of money out of nowhere, and then when it's gone expenses like that are cut.



What sort of expertise is important for your job?

A There is a short but important list of technical things. Most importantly the database language sql and skills with databases. That is indispensable. In addition, a good background in statistics, knowledge of a general programming language such as Python, and the ability to work on longer-term projects.

And apart from specialist expertise?

(A) Perseverance, independence, and discipline are important. We have many long-term projects in which you have to invest several months. That is a lot of creative work. It's like during a doctorate, where every now and then you get frustrated when things don't seem to move forward. Also, a broad interest in lots of different things, because you often have to get involved in other people's areas of expertise. And because there isn't a specialist for every topic, you have to learn it yourself.

Mow did you find your current job?

A I had been interested in the startup scene for a long time. I already had this general direction in mind during my doctorate. For example, I took part in workshops for entrepreneurs. It was important for me to stay in Berlin, to work in technology, to be able to work part-time, and to work in flat hierarchies.

What happened after you submitted your doctoral thesis?

A I set myself the target of applying for one job each day. I typed into search engines: Data Science Berlin. What's going on there? I also selected companies that I liked and then I checked: where are their offices? And I made some unsolicited applications to them. All in all, I sent out 14 applications and for three of them I was invited to an interview. Then things worked out quite quickly.

And were you always so confident, that things were progressing, that it would all work out?

A No. Of course after a doctorate you first face stress and worry about how things will work out. And in addition: I had a doctoral scholarship, which meant that I couldn't receive unemployment benefits, I had to apply for Hartz 4 (the minimum social benefits) instead. I had already gone through the application process.

What sort of job did you get offered?

At first, I got a paid internship for eight months because the job consisted of two aspects. In the first I had a very strong background. But they were looking for someone from another background, in Data Engineering, which has a large IT aspect, very technical. I didn't have enough experience. I didn't fit the full profile but they found me interesting all the same, so they offered me the internship at first, with a high probability of full employment afterwards. And it worked out.

Were you able to fulfill your wish for a part-time job?

A Yes, I work four days a week. Lots of people there do it, I have since found out.

What can someone do during their doctorate to prepare themselves for your field?

All the doctoral candidates who worked with me at the institute had to do programming in one way or another. That's already a very good preparation. Of course it helps if you can already use a programming language. In my application I was very open and told them that I still couldn't do many things, but that I could learn. I was also prepared to accept an internship, and I would recommend that to others.

A certain flexibility.

A Yes. What many people don't realize is that the ability to understand the data you have before you and to know what is in them, and what is not, is an ability that not many people have. So I would say that if you are somebody who has worked with data a lot in empirical research, you can say: Hey, I know how to do this, the other stuff I can learn.

What phrase would you never like to hear again?

A Null results cannot be published.

Florian, many thanks for the interview!

Later on: Florian tells interviewer Anne about how almost every company now has a data analysis department. Anne asks whether the Berlin School of Mind and Brain should also get one ... Florian suggests: Maybe as a testing ground for doctoral candidates who want to get experience.

"The pace for scientific research is much faster"

Jing Jiang studied psychology in Beijing, China, and did her doctorate at the Max Planck Institute for Cognitive and Brain Sciences in Leipzig and Humboldt-Universität zu Berlin. She defended her thesis on neural mechanisms of turn-taking and eye contact in social communication in 2017 and is currently a postdoc in Stanford, USA. In her free time, Jing loves playing sports, such as badminton and table tennis.



Hi, Jing! Where are you and how is the weather?

The weather is always great. I am at home in Mountain View.

Tell me more: What exactly are you doing in Stanford?

I am working as a postdoc in Dr. Amit Etkin's lab.

What kind of research do you do?

Currently I am mainly working on how prefrontal regions in our brain communicate with subcortical regions causally by combining TMS and fMRI.

How do you experience the different "science cultures", comparing Germany and the us?

I feel the pace for scientific research is much faster in the us. However, I do feel German culture focuses on precision. Currently I am trying to balance both.

Looking back to the beginning of your doctorate in Germany: What was your first impression?

Wow! I think every time I have to adjust myself for a period of time. In China, the pace is also faster, but not as fast as in the us. So when I went to Germany, I felt everything is so slow, but now I have to switch it back

And the cooperation style is also different.

In what way?

In China, group members cooperate with each other, and the students in the same class also support each other. In Germany, I feel individuals are more independent. In the us, we also cooperate a lot with each other.

And what would you say is typical of US Americans?

(No reaction for quite a while)

This answer is taking you much longer ...

Haha. It is difficult to say. I am in California now, this is an area with many immigrants. Therefore, I guess it is very open to foreigners. However, I am not sure whether the situation is the same in other regions of the us.

One word about Trump ...

Exactly, it is a totally different world from Trump's control. People here do not like Trump, Trump does not like CA either

How did you manage to go to Stanford? Can you give secret advice?

After my doctorate I started applying. Actually it was difficult for me to make this decision, especially on the shift between research questions. Previously, I mainly focused on the social neuroscience field using techniques with high ecological validity, now I focus more on using paradigms with strict control.

That reminds me of the "secret" of my application: I feel that publications are very important.

Did you have good publications at that time?

From the work during my masters studies, I have a JN and PNAS paper. I only have one paper published in SCAN from my doctoral work so far. At least it verifies that you are able to accomplish scientific achievements at different places, I guess an employer would take this into account to decide whether it is worth employing you.

Jing, I have some sentences I would ask you to finish: In ten years, I would like to ...

... maybe find a job in the us and maybe go back to China to establish my own lab.

What I love about research is

... interesting questions, new techniques, unknown results.

What I find most challenging about research is ...

... the cycle for results/publications is too long.

My favourite place in Stanford:

... the sports center. Actually a lot of places. It is a very beautiful campus.

Most complicated German word you learned?

Neurowissenschaftler

Best Fortune Cookie Wisdom?

... I do not understand ...

In Chinese restaurants in Germany you always get a fortune cookie with a wise saying ...

Yeah – got it! I found this when I went to an Asian restaurant in Germany for the first time, we never have this in China.

Unbelievable! You had to travel to Germany to find out about fortune cookies.

Jing, thank you very much for your time. Have a great day! •

"My work has relevance for society"

Lena Paschke studied biology (Bsc) in Bielefeld and Medical Neurosciences at Charité Berlin. In her doctoral research project in the field of cognitive neuroscience she investigated the effect of motivation on cognitive control, using fMRI. She balanced her work at the computer with riding and beach volleyball in university sports clubs. In 2016, she successfully completed her doctorate and her riding and beach volleyball career. She has a daughter (nine months) and lives with her family in Berlin.

Lena, what do you do for a living?

A I work as a researcher at a healthcare research institute. My job is to work on scientific research questions. I analyze data on medications that doctors prescribe to 70 million people on state health insurance.

What do you like about your work?

A I like the fact that my work has a very concrete relevance for society, that our results can be applied in health services. For example, we are carrying out studies on reducing the use of antibiotics in doctors' practice.

Is it different from research as you know it from your doctorate?

A Yes. We work much more closely with health science and public health policy. For example, we are often allocated fairly urgent research questions when something big is going on politically. That's the exciting thing: we are close to reality. I like that a lot. It's more applied than pure research. Another difference is that I have to coordinate my research with lots of other people and actors. I have to communicate a lot. Part of the work is of course also lobbying and representation.

Mow did you find your current position?

After my doctorate I did six months postdoc. Then I applied for a position replacing someone on parental leave. That was for one year. Afterwards, some staff changes led to a permanent position coming free.

Mow many job applications did you make?

About 12, then I got four invitations to interview. Then things went quite fast. I got two acceptances right away.

What is a typical day like?

A I sit at a computer a lot and analyze data. We also have research meetings, where the different working groups present their latest work to each other. And then there are of course also meetings with my own working group. And I have to communicate a lot with people from the health sector.

What was it like starting your new job?

A One change was that we had fixed working hours. There were times when you had to be present. During my doctoral studies I was allowed to organize that more flexibly. On the other hand I can cash in my overtime as free time and I don't have to think about my work when I'm at home.



What was the biggest challenge for you?

A The topics and content were completely new for me. During my doctorate I worked on pure research and collected data directly. I hadn't done much work related to health. I had to learn that from scratch. Now I work with secondary data, data that have already been collected by someone else. But if you learn anything from a doctorate it's how to quickly get familiar with a new topic (laughs).

What do you like most about your work?

A That what we do is relevant for society.

What advice would you give your younger self as a doctoral student?

A I doubted myself a lot during my doctorate. I was worried it wasn't going quickly enough, that I wouldn't manage it at all, that I wouldn't get any results ... and now I think it is much more the process itself that is important. That's what you have to get through in a doctorate. So I would say to myself: Don't take it all so seriously. It's part of the whole process.

What knowledge from your doctorate is useful for you now?

A It's not so much the specialist knowledge that I now use, but rather the scientific methods that help me. I learned how to write a publication, how to do scientific work correctly, how to collect data, to plan and carry out a large project that is worthwhile and coherent. That's what I learned during my doctorate and that is what I am using now.

What do you do when you aren't working?

At the moment my ninemonth-old daughter takes up a lot of my time. But that's a good thing!

Lena, thank you for the interview! ●

"Are these guys cool?"

A native of Cologne, Iohannes Heereman studied law and psychology in Freiburg, Vienna, and Buenos Aires. In 2012, he came to Berlin and completed his doctorate in cognitive neuroscience on the topic of decisions and confidence. He has been a passionate furniture maker ever since he had to build a rabbit hutch for his first pet as a child. Simon Ludwig is a neuroscientist, and in his spare time a passionate barista and welder. Simon won the stipend for his doctoral studies by doing a headstand in a room full of professors. Johannes completed his doctorate in 2016, Simon in 2017.

Simon and Johannes, you two met while you were both studying for a doctorate, and just last year you got together and became a freelance enterprise. What is it that you do?

Simon Our company is called teambuildingthings. We do team-building, through building. So we work with companies to help them build things that they would like to have in their workplace. We design a workplace as part of a team-building process. JOHANNES We are both psychologists and neuroscientists, and we wrote our doctoral theses on the topic of decision making. At the same time, we also worked on several different voluntary construction projects. For example, we built the raft Panther Ray. We were always building things. I wanted to become a carpenter, Simon a locksmith.

So how did you come to build a raft?

SIMON A friend of another doctoral candidate we knew had this obsession. The goal was to build a raft that could be used as a platform on the waterways of Berlin, and to make the construction plans open source and accessible online, and to build the whole thing sustainably. We were a group of people who just happened to come together, and we managed to gather £11,000 by crowdfunding. And that was how the Panther Ray was born.

Mow did you get the first contract for your company?

SIMON It's funny, but we got the first contract even before the company was founded. We had built the raft in our spare time, and of course various friends and acquaintances got involved. And one of them, a CEO of a data science company from Kreuzberg, said: I want to build a raft like that with my company. Could you organize it?

JOHANNES I think it started even earlier than that. We got a request from a company. The staff said: We want to organize a half-day raft-building workshop. We think it's a fun idea. And the boss said: Oh, I know that guy Johannes, I went to school with him. I'll give him a call.

I imagine a business partnership being a bit like a marriage, one in which each partner has different roles. Simon, what is Johannes' role?

Simon Johannes is the one who gets the business out there, brings it to people. He builds up the networks, gives the cEO talks, that's his specialty. He finds out quickly what it is that other people want, and then responds to that. JOHANNES I have read Montaigne's ideas on the difference between thinking quickly and thinking deeply. Of the two of us, Simon is the deep thinker, whereas I like to race through new ideas. Simon's role is to think things through carefully to their conclusion. I am more hasty. Without Simon I might just rush headlong into trouble. Sometimes people think, 'Who is this maniac!' About me I mean. And then when they meet Simon they are completely reassured.

Do you spend a lot of time together?

JOHANNES Yes! We do a lot of things together. It's extremely important, facetime! Otherwise you would run into communication problems with each other.

What does one have to do to get an enterprise like yours up and running?

JOHANNES Just get started. (Laughs) And also make a precise, well thought-out plan, then be prepared to have to throw that plan right out of the window.

SIMON I am convinced that a plan B that is too rigid also ends up restricting plan A. For me it was important to tell myself, this is my thing, I am now going to do this and not something else, and I'm taking the risk. I am going to spend a lot of time on it at the outset without necessarily earning any money.

Mow do you find clients?

JOHANNES Making lists, phone calls, but also a lot through our own network of contacts. A short while ago a removals company took over its biggest competitor. I saw it happen overnight. Then I wrote the head of the company an email right away: Congratulations! But now you need to integrate all your new employees. We offer team building. He replied the next day, after having called up the companies among our customer endorsements. And he asked them: Are these guys cool? Not: Are they competent or anything like that, but: Are they cool?





What sort of things did you learn while working on your doctorates that are useful for you now?

JOHANNES Lots! The first is: Do a pilot study. You shouldn't jump in straight away with the main project. You test it first. I don't use the specific knowledge from my doctorate directly, it's more about the working methods I learned, how to think clearly, organize myself.

SIMON Sometimes I've wondered: Was my doctorate pointless given what I'm doing now? But the answer is: Definitely not. I would never have done what I'm doing now right after my Masters. Of course also because it was during our doctoral studies that we built the raft. (Laughs)

What do you enjoy about your work?

Simon The variety. Every working day is completely different!

Johannes I can just race about the place hyperactively.

Johannes and Simon, thank you for the interview!

Behind the interview: At the day of the interview, the interviewer opens the newspaper. Inside: An article about a waterborne anti-AfD demonstration. The article features the Panther Ray, and quotes from

Johannes Heereman.



One of the teambuildingthings projects – a roof terrace

"My studies have made me what I am"

Anne Pankow studied psychology and completed her doctorate in 2014 at Charité Berlin. During this time she discovered her passion for Medicine. After her doctorate she decided to begin studying Medicine. She has a son (four years), who was born during her doctorate, and lives with her family in Berlin.

Anne, what are you doing at the moment?

A I am in the eighth semester of my medical studies. Next year I will take the exam.

After finishing your doctorate in psychology you said to yourself: And now I'll study medicine. How did you come to that decision?

A I had always toyed with the idea of studying medicine. And at M&B's career planning events I had already found out that I didn't want to work only in research, but rather also do clinical work. During my doctorate I was part of a medical team and I had the opportunity to get a lot of experience there. After finishing my doctorate I then applied to study medicine and straight away I got a place in Berlin. I had by then had a child and got married and I wasn't going to leave Berlin.

When the decision is a second of the decision is a second of the decision.

(A) In very different ways. My husband would have preferred me to start working in my field first, but he supported me all the same. My father had known for a long time that it was what I wanted, and he said: "If you really want to do it, then do it." At first I had my doubts about whether I would manage a medical degree with a small child. The Charité makes an effort to make its study programs accessible for young parents, and there are special timetables set with that in mind. So I can always pick up my son at 15.00 from the kindergarten, and I have the flexibility to stay at home when he's ill. Somehow it all worked out.



What was it like as a doctoral graduate in psychology going back to the classroom as a student? You could have been there as a lecturer.

A Yes, it was totally strange. I did one course on the ward with a doctor who had written her doctoral thesis in my research group, and I knew some of the lecturers from my doctoral studies. I didn't use my title as doctor, so as not to cause confusion. But I got on really well with the young candidates. They were really amazingly good in other areas, for example in biochemistry. Now we have gotten completely used to each other. The final exams are almost upon us and there is total equality.

What drives you?

(A) While I was working on my doctorate I had a very clear example of what doctors do, right in front of me. And it was clear to me that that was what I wanted to do. I didn't have that in my undergraduate studies. Today I'm very happy that things went that way, because my studies have made me what I am today. Even in my understanding of clinical psychology I was always convinced that somatic medicine is a part of it. There are many psychotherapists who are against the use of medication. I was always of the strong opinion that body and mind belong together.

What did you learn during your doctorate that helps you now?

A lot. How to work material out for yourself, how to get information. When I assess therapies as a doctor, not to rely 100% on textbooks, but to go straight to the source and look critically at the original study. The great challenge in my doctorate was to finish it in three years, working under that enormous time pressure. And then also having to say: This isn't perfect, I can keep working on it, but now it's done. Taking that stance for myself or in the research group, that helped me a lot. Concerning the philosophical aspect of M&B, it gave me a completely new perspective, not just on scientific studies but also on the world.

Can you sum up in one sentence what interests you so much about medicine?

A The variety, not just in topics but also in terms of what you do. You have contact with patients, you work in a team, and at the same time you can do research.

- Where do things go from here for you?
- A I am taking the exam next year.
- O But wait a moment, haven't you been incredibly fast? I seem to remember that a medical degree takes a very long time.
- A I'm within the normal duration of the study program. Training as a specialist (Fachärztin/Facharzt) can then go on much longer, usually five years. I look forward to it.

What about your plan to become a psychiatrist?

(A) I'm still not sure about it. By chance during my nursing internship (Pflegepraktikum) in Spain I discovered dermatology and I found I enjoyed it. It's a nice subject, one where you see all sorts of things and where you work with both young and old people. I have discovered a lot about myself. I had never thought I would enjoy seeing surgery so much. In summer I'm doing a clinical traineeship (Famulatur) at the Vivantes clinic in Spandau with Professor Wolfgang Harth, who is a specialist in psychosomatic dermatology. I can imagine going into that field.

Anne, all the best for your future and thanks for the interview!

"Generous behaviour makes people happier"

Soyoung Park has a bachelor's degree in German language and literature from Seoul, Korea, and did her diploma in psychology at Technische Universität Berlin. In 2012, she completed her doctorate at Freie Universität Berlin, on context-dependent modulation of value processing in the human brain. After a postdoc from 2012 till 2014 at the Laboratory for Social and Neural Systems Research in Zurich, Switzerland, she was appointed professor at the University of Lübeck. She has two children, Karl Mire and Clara Mina, aged three and one.

- O Dear Soyoung, to warm up we'll start with a few phrases for you to complete. A career in science is ...
- (A) ... a marathon.
- My idea of heaven is ...
- (A) ... to be with my family and my children.
- I would like my doctoral candidates to say of me that ...
- (A) ... they can always talk to me.
- The most Korean thing about me is ...
- A ... my Korean appetite.
- **Q** During my doctorate I learned above all ...
- (A) ... endurance.
- As a young person I wanted to ...
- (A) ... party!

- Now I want to ...
- (A) ... still party!
- ② I'm really glad I haven't been asked in this interview ...
- (A) ... how old I am.
- Soyoung, how did you decide to become a researcher?
- A I didn't. I just always do whatever I find really interesting, and at university I started getting interested in neuroscientific research ... I just kept on going, getting more and more into it. It was never planned.
- What motivates you?
- A I think my curiosity motivates me. I want to understand things, and that drives me on.
- How do you explain your research topic to laypeople?
- A I am interested in how decisions are made and how they can be changed.



- Are there are any areas in which you apply the results of your own research?
- A Yes, absolutely. Research results from biology or neuroscience can be applied quite easily in everyday situations. It's not like astrophysics ...
- O Can you give an example?
- A Last year, we were able to show that generous behavior makes people happier. We showed evidence from brain function that generosity is associated with feelings of happiness. The background to this study was the question of whether the moral saying "Doing a good deed makes you happy" is really reflected in our being. When you have been able to show that it is, you can communicate it in a completely different way.
- Have you yourself become more generous since?
- (A) Well, I'm more aware of this mechanism.
- What research topic are you interested in at the moment?
- A How our diet can influence our decisions and thoughts. That what you eat can change your decisions.

- Let's take another look at your career path so far. You said before that a career in science is like a marathon. Now that you are a somewhat more senior scientist, you're more on the supervision side of things ...
- (A) (Laughs) You see? That's why I'm happy I didn't have to tell you my age.
- ② I often meet doctoral candidates who tell me: I really enjoy science, but I'm not sure whether I'm good enough, and the career prospects are so bad. What would you tell them?
- A Doctoral candidates who are worried about a career in science?
- Wes, who worry about whether they meet the standards, whether they are good enough. Women in particular often struggle with selfdoubt. How do you see that in the light of your experience?
- A Maybe we can talk about insecurity in general. Working in science involves a lot of planning and no matter how perfect the plans are, it can still work out differently. In many cases it is important to see it as a chance, a new challenge or as an opportunity to learn. Many times, it is difficult to plan a life, in and out of science, and insecurity somehow belongs to life.

- O Soyoung, I ...
- (A) Hang on, I just want to say one more thing about that: In many cases science is really exciting, because of the freedom it offers, both in the sense of intellectual freedom, to be creative and to think and to learn for yourself, but also in the sense of flexibility, not having fixed working hours. That's obviously a huge advantage. At a time when things aren't going so well for you it's easy to lose sight of that. On the other hand, it is clear that this situation in science has to be improved.
- I asked you earlier what you learned above all during your doctorate. You said: "Endurance". Can you elaborate a bit?
- (A) Yes. I think science has on the one hand an extremely attractive side: That you get to work on a topic that really interests you, that holds your attention because it's so exciting. On the other hand you also have to investigate very systematically. This requires a lot of work, such as gathering data ... Of course you want to spend more time on the attractive aspects, such as generating new hypotheses, planning experiments and studies. Dealing with the other aspects that require endurance and perseverance is much harder. And I think that's what I learned most during my doctorate.

Soyoung, many thanks for the interview! ●

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