"My Work-Life Balance Has Clearly Separated Boundaries"

Ben Toovey

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Abstract In our interview with Ben Toovey, he shares his journey from cognitive psychology to a scientific support consultant role at a neuroscience equipment company. Initially planning a research career, Ben became disillusioned with academia after an unproductive postdoc experience. He now handles customer requests, sales, and R&D projects related to EEG products. Ben values the separation between work and personal life but misses conducting research. He continues applying problem-solving and technical skills from his PhD. Ben experienced grief initially leaving academia, but sees it as the best path forward. He advises being realistic about limited academic positions and recognising industry interest in expertise. Ben encourages viewing non-academic careers positively, not as failure.

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Chris: Can you introduce yourself and tell me a bit about your current position?

Ben: My name is Ben Toovey; I originally hail from a small village called Lindford in Hampshire, United Kingdom – which has one church, one pub, and a sixteenth century water mill. I studied Psychology in Bangor, North Wales for my Bachelor and Master courses, and I've lived and worked in Germany since 2018.

I now work as a scientific support consultant for a company called Easycap GmbH, which sits in a quiet town about 35 km west of Munich. We are a company specialised in manufacturing equipment for neuroscience research, predominantly research-grade electrodes or connectors, as well as hand-made and customisable caps for recording electroencephalography (EEG) from humans and animals. The brand and our products are well known in the sector, and we have recently had our equipment featured in Nobel Prize winning research, National Geographic articles, and even delivered to the International Space Station. In fact, during my PhD I was using many of the products I now work with, customise, and sell on a daily basis.

What was the focus of your PhD?

I completed my PhD at the University of Surrey in 2018 under the guidance of Prof. Annette Sterr and Dr. Ellen Seiss, in the Brain & Behaviour group. The focus of my PhD was in cognitive psychology. Over the course of my program, I conducted four experiments, three of which were purely behavioural. I instructed my participants to either imagine a foot or hand movement or prepare to make such a movement, prior to an instruction which told them to physically execute a specific movement. In this task, the physical movement count be the same or opposite to the hand which was first prepared or imagined. What I found was that the difference in response time for

the correct vs incorrect response times was larger in the imagery priming condition than the preparation condition. This is important because it was the first set of experiments which showed that, contrary to what the theory of neural simulation of action, which is still the prevailing theory of motor imagery, would predict.

In a final experiment, I used electroencephalography (EEG) to record the neural signals of another set of participants doing the same task. Due to my decision at the time to use foot motor imagery and action (whose responsible regions of neo-cortex are very close together) instead of hand motor imagery and action (whose regions are separated by several centimetres between the two hemispheres of the brain), although I found the same pattern of behavioural differences as I had observed in my behavioural experiments, I was unable to detect any differences in my neural data. Unfortunately, I had no longer the time or resources to make a second attempt, and that is where the line was drawn. While my behavioural studies were recently published successfully in a peer reviewed journal, my supervisors and I are discussing re-analysing the EEG data and attempting to publish it, but it takes a lot of motivation to open something like Matlab and all my protocols and documentation again!

As you were finishing your PhD, what were you thinking about your career plans?

Ever since the start of my PhD, I was motivated by the idea of moving to Europe for some sort of research position once I had finished. By the end of my PhD, I had secured a 5-month research internship in Germany at the University of Oldenburg, working with Prof. Stefan Debener. At this point in my studies, I had become a bit demotivated about my project, so this visit really reinvigorated me. The research group was cutting-edge, I was surrounded by enthusiasm and expertise, and I felt like this sort of environment was where I belonged long term.

How have your career plans changed as you've continued on to your current position?

A common theme which I have heard over and over in academia is that there isn't really a work-life balance. Indeed I get the impression that many people need to either be very lucky or very motivated that they can allow their research work to not interfere with their home life, or vice versa. In my case, my short visit to Oldenburg allowed me the chance to meet a wonderful person who I am now lucky enough to call my wife. At the end of my PhD, she had started hers at the University of Leipzig, and I can say now rather confidently that such any long-term long-distance relationship probably wouldn't have survived very long had I not managed to go out to Germany as well. In the end, I finished my PhD and secured my first and

only postdoctoral research position at a smaller university, nearby hers, in the psychology department.

My postdoc there, which lasted for about three years, was anything but easy. The relationship with my supervisor was strained, to the point that once my contract was drawing to a close I had barely any interest in pursuing any more academic positions. This was compounded upon by a rather unproductive adjustment period when the COVID-19 pandemic struck, which made the pursuit of novel cognitive psychology projects (despite my very best attempts) very difficult. This brief postdoc had the largest shaping influence on my current career trajectory.

Do you have any particular advice you can share related to why your post-doc didn't go so well?

This is an interesting question. One reason it didn't go so well is the language barrier, since when I moved over I didn't know a lick of German. This meant that I felt like I couldn't settle into my research group very quickly. The second and more significant reason is that my supervisor micromanaged my projects throughout the postdoc to the point where any decision that I made had to be the one that my supervisor insisted on (and hence, it was not really my decision). Obviously, the work I was hired to do needed to be done, and our successful publication is testament to that. However, many of my suggestions for improvements to experimental protocols were dismissed, and I wasted many hours formulating a series of experimental designs and rationales for a funding application according to my supervisor's requirements, only for the entire thing to be canned and rewritten at the last minute.

The most stressful thing was at the end of the contract. Despite being unenthusiastic about academia, I felt a bit trapped in the system and so needed to find additional funded positions to have a chance of continuing my work. I had enquired with a potential supervisor in a different university in Germany about putting together an application for a self-funded position through the German Research Foundation (DFG), instead of with my supervisor at the time. This was because I didn't have a guaranteed position after my current funding ran out, nor was the funding application we had written and planned to submit a surefire position, so I figured I needed to apply more broadly to give myself the best chance of staying employed. Once I announced my intention to look for a new position in a different group to my supervisor at the time, they threatened to terminate my remaining contract on the spot, unless I first made the application with them. This was, in my mind, sabotage. It was an act of external control over my future, which I found irreconcilable with the fact that my position as a non-Professor-level academic in Germany was short-term, time-limited and insecure, whereas my supervisor had the relative luxury of a tenured position. Hence, I politely informed both the current and potential supervisors about my intention to withdraw from any future applications and that was that. This soured the relationship for the remaining months of my contract and set me firmly on the path away from academia.

Can you tell us a bit about what day-to-day life is like in your current position?

Day to day is very sales-oriented, which was a bit of an adjustment for me, although this has been more regarding using the software we have for stock management, for generating quotes, for navigating documentation, and for general product knowledge. In my role as a scientific support consultant, I also deal with requests from customers, who are typically researchers, who need consultation for example on a new custom cap design or for which equipment to buy for their project. I work in close connection with colleagues in logistics and production, and with my fellow "supporters" (we are 3), who are all also former academics with a neuroscience or psychology background.

I also work on more behind-the-scenes projects, such as handling relationships and sales agreements with distributors who sell our products in foreign countries, or companies for whom we make customised solutions for their products.

Finally, I have some responsibilities for research and development tasks. For instance, I recently designed a connector adapter which should aid researchers to keep more of their data when using a special type of printed EEG grid. This is something I am quite proud of, since the project has the hallmarks of scientific work still – I found a gap in the literature, designed, and tested a solution, and this has now been built and sold a couple of times to interested groups.

What do you like most about your work?

My work-life balance has clearly separated boundaries. I don't remember the last time I picked up my laptop to work after I clocked off to go home, and I don't remember the last time I needed to rush to get any work done on the weekend. I also like – if I can pick two "mosts!" – that my career is no longer dependent on a continual competition for shrinking pools of funding and approval from multiple different interest groups.

And what do you like least about your work?

I like the least that I can no longer do cognitive psychology research! I feel like I left the field with a lot of unanswered questions and a lot of good project ideas still untested. I still read articles when I can, but it's not the same. When I finished my post-doc and moved on, I initially considered starting an independent blog or video series aimed at undergraduate level students on how to conceive, implement, analyse, and write up simple psychology experiments with the help of open source software such as JASP or R for statistics and PsychoPy for experimental design.

This so far has yet to materialise, but watch this space….

How do you think having a PhD has helped you succeed in your current position?

My PhD gave me the knowledge of a certain ecosystem of products from the perspective of a user, which helps because I know what researchers need when they are looking for certain solutions to their problems. Besides that, I suppose obtaining the PhD has proved that my aptitudes are being a quick learner and good problem solver, both of which are fairly integral to my current job.

If someone currently finishing their PhD was considering a position similar to yours, how might they decide if it would be a good fit?

I would like to say that my particular career is sort of an inversion of the academic pathway. My job is fairly secure, and while I still use my skills that I learned during my PhD, I do it to a much lesser degree. That is, my intellectual and creative freedom has dropped substantially compared to my PhD and postdoc, but my compensation is in the form of better job security, an ability to plan my future with more long-term goals already in mind, and better pay.

I wouldn't say this is a zero-sum trade-off, but sometimes I reflect on it (like during this interview) and it seems like it is in my case. So ultimately, it falls on the PhD student to decide where they want to carve out their interests – whether they are ok with fewer intellectual freedoms but more stability, or vice versa.

If someone was interested in pursuing a similar career path, what would you suggest they do to better prepare themselves?

It's difficult to suggest how to better prepare oneself, given I made a relatively last minute decision to leave academia based on my postdoc experience. There was no protracted job search or a vast number of failed job applications on which to draw lessons from. I first submitted an application to be a user experience researcher with a large video game development company based in Dusseldorf which I never heard back from, and then I applied for my current job, and that was a success.

As a concrete answer, I think researching your options is the most significant part of making a lateral transition out of academia into an academia-related industry. Simply knowing which companies exist that produce or consult in your field is a big advantage. In my case, I was familiar with the products my current company manufactures since I used them during my PhD, and this explicitly helped me during my interview stage (or so I was told afterwards).

Another piece of advice would be to learn how to create a good, clear, industry-oriented CV. Don't list all your publications and their minutia. Don't waffle about your summer school internship in Lanzarote. Get to the point and make your experiences directly relevant to the job you're applying to.

A lot of people like academia because they feel it gives them an opportunity to work on a topic that they deeply care about. Do you think this is also true in your current position?

In my current position, I periodically get an opportunity to work on projects with end-users for things that I am genuinely passionate about. For instance, I've recently worked on a project with a company that is developing EEG equipment for educational reasons, like teaching high school students or enthusiastic undergraduates about neurophysiological methods. I think widening access to science is a hugely important topic, so for me that has been quite rewarding.

Another reason many like academia is that they feel it provides them with more freedom than they think they would get in other positions. How much freedom do you feel you have to work on what you think is interesting?

We're not a particularly large or complex company. We specialise in a few areas of scientific device manufacture and support, and our freedom to innovate further in these areas depends on whether there is an obvious need for certain devices. We most often detect this need based on whether there is an increasing volume of specific requests for a certain type of help or product. However, the connector adapter I developed (as I described above) was entirely self-identified and motivated. Although it became a successful product, this tends to be the exception rather than the norm.

Based on your journey, what advice or suggestions do you want to pass on to someone who's currently finishing their PhD?

Oof. Be realistic about your current trajectory. Academia is incredibly internally competitive – the number of available positions is growing slower than the number of your peers competing for those positions. On the other hand, you will find that

companies are often competing with each other for your expertise. While there are many great benefits to being in academia, there is still a certain degree of luck as to whether you'll still be employed which may not be tolerable after 5 years of working, and much less after 10. And I know some individuals still in academia who are in exactly that position.

Is there anything else you'd like to tell someone reading this interview?

Academia is not a bad choice! Many people thrive in its environment, and the pursuit of knowledge and all that it entails is still highly rewarding. My only plea is that people are realistic about it. I think the sooner people can make a decision about whether to stay or not, the better their mindset would be in the long term, whichever option they choose.

Likewise, leaving academia for a job in a company is not "giving up", and it is certainly not failure. I personally went through a small period of what I refer to as "grief" once I realised I was leaving academia. It was initially quite difficult for me to accept, and sometimes I wonder whether others have been through a similar transition. But on reflection, this was a totally normally emotional response. It was grief because it felt, to me, unforced, that I had little control over it, like I had failed in some way to chart my own course. But looking back, it gave me all the best opportunities I could ask for, and I'm absolutely certain this was not a mistake.

Thanks for sharing your journey with us, Ben!