



THE COMPLETE ANSWER EVA LIEVENS

Eva Lievens is an evolutionary biologist who studies host-parasite interactions. She grew up in Belgium and the US, obtained her master's from universities in France and Sweden, earned her PhD in France, and is a postdoc in Germany. Her work looks at infections through the lens of ecology and evolution; her main topics are infection life histories and the (co)evolution of resistance and host range. She can generally be found pipetting, staring at algae, powering through R code, or looking for missing lab equipment. Eva interrupted her postdoc at the University of Konstanz to join the College for Life Sciences from September 2023 to February 2024. During this time she abandoned the lab to work on a meta-analysis of infection dynamics. She fell in love with the Wissenschaftskolleg for its academic excitement and with Berlin for its fencing and salsa dancing. – Address: Department of Biology, University of Konstanz, Universitätsstr. 10, 78464 Konstanz, Germany. E-mail: eva.j.lievens@gmail.com.

When I left the Wissenschaftskolleg in February, it seemed everyone wanted to ask me variations on the same question: “How has Wiko changed your research interests?” or “Has Wiko changed your approach to science?” or “Do you think you’ll start using new methods after Wiko?” I think I disappointed those who asked, because I didn’t really have a good answer then. The truthful answer was “No,” but that didn’t feel quite complete. Now, after several months of hindsight, I can finally articulate those missing pieces. So, dear fellow Fellows: please consider this report to be, finally, the answer to your question.

I came to the Wissenschaftskolleg as a College for Life Sciences Fellow, with six years of postdoc’ing under my belt and a tower of unfinished projects on my plate. The plan was

to take one of these unfinished projects, a meta-analysis, and dedicate five months to completing it. The meta-analysis was designed to answer a fundamental question in my field: does the number of parasites that start an infection affect the dynamics of that infection within the host? Since tests aimed at answering this question were relatively scarce in the evolutionary and ecological literatures, my collaborators and I had decided to synthesize data from across the life sciences. The project had turned out to be massive, in large part because we had underestimated the additional reading we'd have to do: the parasites that formed the focus of the veterinary or medical studies had not been chosen for their tractability as ecological model systems, and often had complicated life cycles or unresolved natural histories. Furthermore, terminology differed between the fields in unexpected ways, forcing us to backtrack regularly to revise our collected data. Squeezing this work in around our other obligations had caused the project to drag on since 2020 – but we were so close, and I was sure I could finish the meta-analysis by the time my five months were over.

Beyond that, I was excited to go to academic summer camp, as I described it to my friends and family. The institute really seemed like it could be advertising in the garish WordArt fonts of my childhood: “Wissenschaftskolleg zu Berlin: Join us for ~~two weeks~~ five months of ~~forest~~ Berlin fun! Develop your talents and make new friends!” After five years at a smallish university, after the years of pandemic-induced stress, and with the job market looming, I was in sore need of that excitement.

The Wissenschaftskolleg more than delivered, in expected and unexpected ways.

Academic summer camp turned out to be exactly right. From the moment I arrived, everything was easy and exciting. The staff was so welcoming (special thanks to Jana and Vera), the food was so good (special thanks to Dunia et al.), everything was so well-organized (special thanks to... everyone?). I felt like I'd been catapulted back into the world of Dorothy Sayers, if Dorothy Sayers had had personalized IT cards left on her desk. Moreover, this world was populated by a group of phenomenal Co-Fellows: open, kind, interested, interesting people with specialties I'd barely ever heard of before. The social atmosphere and meandering discussions put me at ease in this crowd of famous intellectuals. Through the Colloquia I discovered disciplines I'd barely ever heard of before (microhistory: who knew there was a micro- and a macrohistory? analytical philosophy: philosophers do stats?). The presentations were fascinating and sometimes baffling, stretching my academic muscles in new and uncomfortable directions. And if those directions ever got too new or too uncomfortable, Arjun, Iveren, Ismaila, and Stefany brought back a touch of sanity. The whole experience reminded me what a joy learning can be and was exactly the motivation boost I needed.

I got work done, though not quite the work I'd anticipated. The library staff generously spent hours hunting for the most obscure references I could give them, so that I could include 60-year-old data in my meta-analysis. I coded for weeks, making sure that the data could be compiled smoothly and without bias. I spent days thinking about the right analyses, and more days trying them out. I presented my work at the Freie Universität and the Leibniz Institute, and I debated my strategies with the colleagues I met there. I was able to invite two of my collaborators, Nitin Bansal and Georgia Drew, to visit the Wissenschaftskolleg; together we made decisions and powered through datasets. All this work dramatically advanced my meta-analysis project, but it also revealed unexpected dilemmas and yet more reasons to backtrack. Furthermore, I spent part of my Wissenschaftskolleg time writing an application for an independent research grant (which I have since received!). The end result was that my meta-analysis project went from "so close" to "so, *so* close"... Although this was disappointing, the time I could invest at the Wissenschaftskolleg will make an enormous difference to the quality of the meta-analysis once it is finished.

If all the Wissenschaftskolleg had achieved was a motivation boost and completed work, I would have gone home happy – and indeed I did (metaphorically, that is, factually I was definitely not happy to be going). But in the months since, I think I've noticed a more profound effect: the way I see myself as a researcher has changed. Pre-Wiko, I thought I knew what academia was. My semester in Berlin showed me that I only knew my small scientific corner: colleagues from different disciplines communicated in radically different ways, valued different methods, and even seemed to think in different patterns. In contrasting myself with them, I began to recognize the extent of my specialized skillset – and consequently to revalue it. I found myself saying "as a scientist..." a blanket title I would never have aspired to before. Furthermore, everyone else recognized my skillset automatically: my phenomenal Co-Fellows were interested in my research, in my experiences, and in my opinions on their own work. The entire experience made me more confident that I have something to offer, both in my research interests and in my skills. Post-Wiko, that new confidence has helped me write job applications and prompted me to apply for a research prize (which I have since received!).

Being a Junior Fellow at the Wissenschaftskolleg was exciting, challenging, and relaxing by turns. I'll always be grateful to the staff and colleagues who made it possible – I'll think of you every time I work on an idea that crystallized at Wiko, every time I make an alumnus contact, and every time I take a bit of breathing room in the madness.