



August 10, 2021

Dear Duolingo Team,

I am excited to apply for the new graduate learning scientist position focused on the Cognitive Psychology of Learning. I am on track to obtain my Ph.D. in the spring of 2022 in the Cognitive and Cognitive Neuroscience area at the University of Wisconsin – Madison’s Psychology Department. I use behavioral experiments to study how we can make language learning more effective, and I have extensive experience designing computerized tools for language learning. My passion for second language learning, together with my expertise in cognitive science research and my data analytical skills make me an especially good fit for the advertised position.

I love language learning! Besides enjoying the learning process, I’ve also reaped the benefits of my language skills, which allow me to attend graduate school in my second language here in the USA. However, while everyone could benefit from the opportunities second language learning provides, many people I meet struggle with the process and never attain the level of proficiency they want. Thus, my goal is to make second language learning more accessible for people.

My research applies findings from the broader field of cognitive science to second language learning. For example, language production engages memory recall, which had been shown to lead to better vocabulary learning than recognition, the process engaged in typical comprehension exercises. In a well-controlled artificial language learning study, I showed that production practice is also more effective than comprehension practice for learning the *grammar* of a second language (Hopman & MacDonald, *Psychological Science*, 2018). I then collaborated with Second Language Acquisition researchers to confirm the benefit of production using a natural language with more complex grammar (Keppen, Hopman & Jackson, *Applied Psycholinguistics*, 2021). I am eager to apply both my knowledge of language learning and my research skillset at Duolingo, where my findings could make an immediate impact on millions of learners.

I am proficient in data analysis, including using mixed effects regression analyses for analyzing behavioral experimental data in R. I’ve also analyzed a dataset released by Duolingo to replicate, in big data, findings from small experimental studies about factors like cognateness that make certain words easier to learn than others in a second language (Hopman, Thompson, Lupyan & Austerweil, *Proceedings of the Cognitive Science Society*, 2018), using Python to wrangle the dataset and R to merge it with other corpora and conduct analyses. Throughout my research projects, I have successfully collaborated with an interdisciplinary research team, including people in fields like German, Spanish, Statistics, and Computer Science. I’m known for my ability to clearly communicate difficult concepts, even writing an article to explain my research to children (Rojas, Hopman & MacDonald, *Frontiers for Young Minds*, 2020)! I look forward to expanding my interdisciplinary experience even further at Duolingo, for example by collaborating on UX focused projects to improve learners’ experiences with the app.

I’m so enthusiastic about Duolingo because my entire PhD research career has been focused on second language learning. Working as a learning scientist in Duolingo’s Learning + Curriculum team would allow me to learn from and work with the brightest thinkers in the field of language learning. Duolingo’s culture of celebrating wins as a team meshes well with my own style. I received a mentoring award for cultivating exactly such a mutually supportive environment within my own team of research assistants. I am eager to bring my experience and skills to Duolingo, to help further our joint mission of making language learning accessible, fun, and effective for people around the world.

Bedankt, thank you, dankeschön, merci, gracias, dziękuję,

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