

Hannah Legatzke

Graduation Year: Senior

College: Arts & Letters, Science

Major(s): Environmental Sciences, Anthropology

Minors(s): N/A

Scholar Group Membership: Glynn Family Honors Program

Did you received other funding for this project?: Glynn, College of Science

Could you have completed this project without CUSE funding? No

More details on CUSE funding assistance?

Project Title: Bilingualism and family dynamics

Project Location: Hormones, Health and Human Behavior Laboratory, University of Notre Dame, Notre Dame, IN, U.S.

ND Faculty Mentor: Dr. Lee T. Gettler

Project Type: Research

Why did you undertake this project/experience? Deepen your knowledge of a topic or issue, Research/experience necessary for senior thesis or capstone project, Prepare for graduate school (MA or PhD)

Did your funded experience help you:

[Deepen your understanding of your coursework or field of study]: Very Much

[Discern your interests and post-bac goals]: Very Much

[Become confident in your ability to set and achieve your goals]: Very Much

[Gain a more nuanced view of local, national, or global communities]: Very Much

[Improve your written and verbal communications skills]:Very Much

Tell us about your experience.

Given the multi-national, multi-lingual heritages of individuals within the U.S. and the social pressures that immigrants may experience as they assimilate into the lifestyles of a new cultural environment, I was interested in how members of Spanish-English bilingual families in the U.S. navigate the use of two languages. Particularly, I was interested in how the varying preferences and proficiencies for Spanish and English among family members may affect how they communicate and whether communication challenges produce stressful situations that elicit physiological changes in stress hormone levels. In the first part of the study, I interviewed individuals from Spanish and English and found that family members had varying opinions on how language should be used in the home. In the second part of the project, I met with bilingual families who participated in two prompted conversations, one in English and one in Spanish. Before and after each conversation, participants provided saliva samples from which I measured changes in cortisol, a hormonal biomarker that has been shown to increase during situations that produce psycho-social stress. While anxiety about Spanish did not have an apparent effect on individual's speech or physiology, individuals with more anxiety about using English tended to

switch to speaking Spanish more often and ask their family members more questions about how to phrase ideas in English. Additionally, younger participants with higher English anxiety demonstrated increases in cortisol levels after conversations with their family members in English.

Describe the impact this project had, both on you as a student-scholar and on the people you worked with.

As a student-scholar, the project gave me the opportunity to conduct original research and learn the entire research process from brainstorming research ideas, to constructing an experimental design, to getting Institutional Review Board Approval, to recruiting participants, to collecting and analyzing data, and to writing the final paper. This research suggests that the contexts in which Spanish and English are viewed in the U.S. may have measurable impacts on individuals' speech and physiology. Understanding these impacts is important because of the health consequences of chronically elevated cortisol levels. The people I worked with explored their own and their family members' language preferences and engaged with a question in which they were as interested as I was.

Describe how this experience is connected to your plans as a student or future professional.

This project completed the requirements for my senior thesis and the opportunity to present my findings at the Human Behavior and Evolution Society Conference. Interviewing Spanish-speaking migrants in the South Bend community has prepared me for my work as an Asylum Intake Specialist at the Northwest Immigrant Rights Project next year and convinced me that I want to return to graduate school to pursue a career in research in the long-term.

What advice would you give other students who are planning to pursue similar projects?

Learn to embrace the unexpected. Working with people is unpredictable and challenging, but incredibly fulfilling for it. One of my favorite moments of data collection was arranging to meet with two participants only to arrive at our meeting to find out that they were hosting a cook-out for their entire extended family. When I offered to re-schedule our meeting, they kindly invited me to stay for dinner. I thoroughly enjoyed the opportunity to meet new people and explore parts of South Bend that Notre Dame students do not normally experience. I would encourage other students to consider ways that their research impacts the local community.