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Library Award for Undergraduate Research Reflective Essay

My research began with attempting to figure out a topic for my term paper for the ANTH322 course (Method and Theory in Ecological Anthropology) I took in the fall of 2014. Our topic was to be a coupled human and natural system (essentially, finding a human system and an environmental system which fed into each other in a loop). Epidemiology and disease have always interested me, so I knew going in that my paper needed to involve that in some way. After going through some topics (the Black Death and HIV/AIDS among them), I felt like I was not challenging myself enough. I sat down with my professor, Sean Downey, and he recommended I do something entirely different and research a topic I had never heard of until that meeting: niche construction. I have always liked a challenge, and a newly emerging evolutionary theory fit the bill.

As I began looking at peer-reviewed journal articles through the library's social science databases, lactose tolerance and especially malaria continued to crop up as examples of niche construction in the literature, but without much discussion or research behind them. So, naturally, those were the two examples I decided to focus on since they were more difficult. Beginning with the library's copy of the book *Niche Construction: The Neglected Process in Evolution* by Odling-Smee et al. recommended to me by Professor Downey, I was able to begin to pull out key terms to search for better articles and sources.

I quickly realized, however, that I had an incomplete knowledge of the biology and science behind both of my examples, particularly malaria. Being a student who was never much good at the life sciences, I needed help knowing how to find sources on this. The Library Services desk was incredibly helpful in guiding me through the process of using their databases and collections on such complicated topics. While I did not utilize a research librarian after this, their assistance in helping me start the process was instrumental. So, starting with government publications I found in McKeldin Library, I combed through countless articles, books and encyclopedias hunting down any and all background knowledge I could find so that I could better sum up and explain in layman's terms the complicated biology and genetics behind all the processes involved. With the countless sources I was finding through the library's databases, I had to narrow them down, so I decided to only use peer-reviewed journal articles, biomedical books and government documents/publications published within the last fifteen years or so in order to have the most up-to-date and relevant information.

For the anthropological, genetic and evolutionary theories, I had to dig farther back for background. Many of these sources I found through Odling-Smee's book,

specific searches on World Cat (as it gave me the widest range of different sources from different fields) and through the bibliographies of those sources as well. With these, I tried to only use sources that were cited multiple times in others' work, because that is often a sign that it is well-regarded and can be trusted. Once again, I almost exclusively used peer-reviewed journal articles or books. This was done not just because peer-reviewed articles are more scholarly and informative, but because of how young niche construction is. Since the theory only emerged in the last twenty years or so, it is only now even beginning to be tested in the field and written on outside of academia. This certainly was an obstacle, as I wanted to make sure I was citing a variety of authors, experts and journals in order to ensure I was not simply getting one person or group's opinion. Also, these sources are not only harder to find but more difficult to read, as they're written by experts in the field for other experts, not for undergraduate students like myself.

I have done many research papers and projects in the past, but this one was certainly the most in-depth I have completed. I typically have researched topics I have at least a basic knowledge of, and this process taught me a lot on how to research a difficult subject that is outside of my field. It was a challenge, but an incredibly enjoyable one. I also learned a lot more about the library's resources, particularly on how to comb through governmental and medical books and documents. Seeing as I hope to go into public policy work, knowing how to find government documents and gain extensive knowledge on a specific subject (although I don't know how much I would ever work with malaria in American politics) will be instrumental to my future career, whether that be in academia or the private sector.

I do wish, however, that I had better utilized the research librarians here on campus. While I was able to find all the information I needed (and more) on my own, a research librarian certainly would have helped speed up the process and given me better insight into how these sources are created, and what a lot of the academic vernacular is getting at. Otherwise, I thoroughly enjoyed my research process and progress, even when I was spending long evenings (into early mornings) at McKeldin reading and writing. I now have immense knowledge on a newly emerging field of study, and I cannot wait to see not only where the research on niche construction goes in the future, but possibly what part I can play in the conversation.