

I entered college with the vague notion that I wanted to understand the biological underpinnings of the learning processes I had always loved; this desire crystalized toward the end of my freshman year at Brown University when Dr. Dima Amso delivered a lecture on brain development in my introductory cognitive neuroscience class. As I heard her describe development as a series of constant and cascading interactions between biology and environment, I grew determined to probe the complexities of which she spoke, aiming to understand how experiences and prior learning shape people's ability to build new knowledge as they explore their worlds.

I approached Dr. Amso about joining her Developmental Cognitive Neuroscience Lab, and spent the following three years growing increasingly fascinated by both broad questions about the development of learning mechanisms, as well as the daily problem-solving involved in translating those questions into testable ideas. I helped with projects examining how autistic toddlers' attention to faces influenced word-learning, how engaging infants' attention through spatial cueing could mitigate the negative effects of low socioeconomic status (SES) on long-term memory, and how children's SES and early life experiences affected their rule-guided behavior.

Inspired by the idea that differences in attention influence not just *what* individuals learn, but also *how well* they learn information, I also led two of my own studies: The first investigated how systematically changing a video clip's level of social interactivity affected how preschoolers' attended to and learned words from the clip. The second, my senior thesis, examined how the distractors present during visual search influenced selective attention and memory for target items.

Over my three years in the lab, I learned how to design and program experiments, test participants across age groups, analyze data, and disseminate my findings to a broad audience. Still, my development as a researcher rested less on the skills I acquired, and more on the profound shifts that occurred in how I thought about human beings. I began to see each person as an infinite

series of experiences, with the complex relationships underlying their ability to think and to learn illuminated most clearly by studying how their behaviors changed over time.

To continue my pursuit of research, I applied for and received a Rhodes Scholarship to complete a two-year research program in psychology at the University of Oxford. At Oxford, I have continued to explore how interactions between attention and memory drive learning under the mentorship of Drs. Kia Nobre and Gaia Scerif. My current research employs eye-tracking to examine how long-term memories influence visual attention. I aim to determine how memories interact with salient environmental stimuli to drive attention orienting in both children and adults, with the goal of understanding what types of cues may best promote learning at different developmental time points. I am also working to analyze a functional neuroimaging data set that was collected as participants completed a different attention-orienting task.

As I seek to begin my Ph.D. at NYU, I am eager to expand my horizons and examine more active forms of learning in which individuals exert greater control over the environments and information they encounter. I hope to work under the direction of Drs. Cate Hartley and Todd Gureckis to examine the cognitive and neural mechanisms underlying the development of strategic information-seeking and reward-learning, as well as how those mechanisms are shaped by early experiences. Additionally, I am eager to work with Dr. Lila Davachi to examine bi-directional interactions between episodic memory and decision-making. NYU's dual strengths in both developmental psychology and cognitive neuroscience make it the ideal place for me to continue to explore human thought and behavior. There, I aim to combine novel behavioral paradigms, fMRI studies, and computational modeling to gain deeper insight into cognition. Ultimately, I hope to pursue an academic research career and contribute to our growing understanding of the interacting cognitive processes that enable learning to build on itself over developmental time.