Statement of Purpose

of Jason Ralston (Economics PhD applicant for Fall—2017)

I realized that I had interest in economics when I was first exposed to a prisoner's dilemma game in high school. Our class was asked to divide into groups and each group was allowed to either cooperate with the other teams or to defect. It was the typical setup where welfare was maximized by all parties cooperating, but that it was in every team's best interest to defect at all times. What made the game interesting was allowing for communication between the different groups, allowing for cheap talk. It was surprising to watch the teams that tried to convince all the others to cooperate. When the choices of the teams were revealed, these teams divided into two groups: those who defected after imploring everyone else to cooperate and those who stood by their words and cooperated. The people in this class were by no means unintelligent, so why did some defy the dominant strategy of defect? What beliefs must they have had in order to choose to coordinate and how did those beliefs form? In my group of friends, I would find myself pondering social dynamics, mentally explaining the intents of actions and attempting to retrieve their underlying belief structure that determined their behavior.

I entered the University of Kansas as a computer engineering major, but quickly decided to double major in economics and mathematics, inspired especially by the game theory courses. Using my elective courses in statistics as a foundation, I applied my skills to econometrics in the pursuit of doing my own empirical work in labor economics. In my final year, I partnered with Donna Ginther to explore the human capital versus signaling debate in the economics of education. The product of my effort was my senior thesis "Signaling versus Human Capital: Evidence from Major to Occupation Matching."

From my experiences at KU, I aspired to be a labor economist, and was soon accepted to UCI's economics PhD program. During my second year, I chose my first field: labor economics. After working with David Neumark on an age-discrimination field experiment, I realized the value of the experimental method and took up my second field: experimental economics. This second field led to my third pursuit: microeconomic theory. I encountered impressive models that predicted subtle, yet important, human behaviors.

My Research Background:

During my time as a PhD student at UCI I took the entire labor economics sequence as well as applied econometric methods and advanced applied econometric methods classes. These courses led me to work with professor David Neumark for two quarters in 2014. Under his supervision, I worked to gathered and compiled data from mock job applicant resumés which were used to test for age discrimination in a large-scale experiment.

Neumark's study made me realize the importance of a well-controlled experiment in testing the predictions of economic models. This led me to complete the experimental economics sequence and work with John Duffy and Michael McBride. Under their supervision I conducted my first two studies. The first, "Debt Aversion and the Impact of Natural Borrowing Constraints: Evidence from an Experiment" sought to more deeply understand the determinants of debt aversion, which had been explored in the macroeconomic consumption literature. This paper found that a large component of debt aversion is attributable to loss aversion and that a natural borrowing constraint increases average welfare, especially in longer life cycles where planning for the future is hardest and losses are largest.

My second study "Not Worth the Effort: Cognitive Load and Suboptimal Behavior," currently under review in the Journal of Economic Psychology, explores how much effort people will put into optimizing a certain decision under different levels of cognitive load, if people can be incentivized to increase performance while under cognitive load, and if people can predict what the effects of cognitive load will have on the value of their effort. The study found that cognitive load does significantly decrease performance, and that increased reward does not mitigate the effects of increased cognitive load on performance. It also found that a person's reference point for task difficulty will play a large roll in how one responds to changes in difficulty, and also that human subjects are unable to tell exactly how changes in difficulty will impact performance prior to engaging in a task. These results have helped expand our understanding of cognitive load and fast versus slow thinking systems.

During my fourth year, I have continued to learn and diversify my interests by completing the microeconomic theory sequence, which consists of topics in individual choice theory as well as evolutionary game

theory. Through my evolutionary game theory class, I learned of cultural transmission models and their interesting predictions about backfire effects. I have since partnered with Professor Jean-Paul Carvalho to develop a new model of cultural transmission where we relax assumptions about what information is known to the agent and also the learning of transition probabilities. We plan to test the predictions of the model in a large experiment.

In addition to the research studies I have conducted and helped to conduct, I have also served as a research assistant for John Duffy and as the laboratory assistant for the Experimental Social Science Laboratory, run by Michael McBride. In these roles, I have honed technical skills such as programming in Stata, zTree, Python, HTML, and typesetting in LaTeX. I have handled data cleaning and analysis for John Duffy for two years and have handled all the duties demanded by the laboratory. Frequently this involves writing and testing experimental software for professors in the economics department as well as the business school that use the ESSL.

My Job Plan:

My plan is to assume a role in an academic setting, preferably in the United States. My time spent as a PhD student has been highly enjoyable and rewarding. When I stop to think about what made the experience so satisfying, two factors present themselves: research and teaching.

From my advisers, I have increased the depth of my understanding regarding topics of interest to me and expanded my breadth of my knowledge on topics which I had not previously considered. They have provided advice and encouragement in times where I felt lost. I wish to do for other graduate students what they have done for me. Through research I hope to grow the body of knowledge of economics and the social sciences. I will work to continue to inspire the next generation of economic researchers with my own research.

I plan to enter the job market in 2017 and complete my degree in July of 2018. During the four years I have spent at UCI, I have seen the scope and esteem of experimental methods grow in many areas of applied economics. I have done my part to help this growth by helping first-hand in the laboratory and in the field. Not only am I able to test the theories of others, but I also create my own predictive models about behavior in everyday conditions. I feel my training has prepared me well for a future in academics. I hope to find a job wherein I can pursue my passion for the field of Economics and continue to build my skill set and knowledge base.