

# Research Philosophy & Plan

Research is the lifeblood of Psychology, a necessity for both exploration and credibility in a world increasingly biased and self-confident in a common sense approach rather than an empirical style of understanding. Therefore it is my belief that a strong research plan must be implemented; to not only fulfill service to my field but also to aide directly in student education through real life examples imparted during the teaching process.

My primary research interest is in judgment and decision making, specifically the areas of economic and health decision making, with secondary research interests in individual difference variables that affect decision making processes and consumer behavior. Much of my early work has focused on a particular individual differences variable, strength of handedness, as a predictor of decision style and correlate to interhemispheric interaction within the brain. I intend to continue research in this manner, drawing links between decision making style and predictor variables. I also intend to construct experiments to determine if differences in decision choice can be predicted or manipulated through easily generalizable means (e.g., wording manipulations, statistical interpretations, etc..) independent of the variables I normally study. Finally, I also intend to utilize my career in computer science and technology-related writings (i.e, blog posts, editor positions at online publications) to draw interdisciplinary links and conduct research overlapping both fields. Below is a brief tentative research plan for the next two years, with closing remarks on Years 3 and beyond.

## Years 1 & 2

- Establish lab and recruit research assistants (interested undergraduate students), conduct regular meetings to educate RAs regarding my previous work, and to give them a brief background into the field of Judgment and Decision Making
- Extend work on the following previous research projects.
  - Economic decision making, consumer behavior, and strength of handedness.
    - Funded research in the Decision Research Lab at the University of Toledo has shown a link between risky decision making (situations in which a risky choice may be made or avoided) and strength of handedness
      - Specifically, individuals who tend to use both hands in a variety of daily tasks (Mixed-handers) have been shown to potentially be more loss averse, more prone to updating beliefs, and to generate more counterfactual arguments than individuals who tend to prefer using one hand (Strong-handers)
      - It is argued that the correlation between strength of handedness and size of the corpus collosum (a -0.6 correlation) indicates that Mixed-handers, possessing larger corpus collosum on average than strong-handers, enjoy greater interhemispheric communication and thus display different abilities both within decision making and cognitive science as a whole (e.g. memory, perception, etc..)
    - It is my goal to explore additional decision making paradigms that involve risk as well as economic gain or loss, with attention to handedness.
      - My current work in the sunk cost effect illustrates how a decision bias can differ in effect on a participant based on handedness. As research has shown that inhibitory mechanisms that serve to prevent an individual from engaging in risky behaviors are located primarily in the right hemisphere, it

is likely that similar biases that focus on risk may also show handedness differences.

- Consumer Behavior and “Opportunity sets”
  - Consumers often neglect to consider opportunity cost when making the decision to buy. Work I’ve done with Eric Johnson at Columbia has focused on understanding the set of alternative purchases considered by decision-makers. These self-generated “opportunity sets” are then analyzed for differences in types of alternatives generated based on individual differences (e.g., do experts generate different alternatives than novices, men versus women, old versus young, etc.), and various manipulations are employed to make the decision-maker more aware of possible alternatives.
    - Applications reach into both consumer behavior, choice architecture, and public policy initiatives.
- Seek out external funding sources.
- Attend annual research conferences, presenting my work to my peers.

### Year 3 and Beyond

Lines of research established in the first two years will be continued while new lines are added as research results both within my lab and within the field provide interesting insights into possibly related phenomenon.

Initially I plan on heavily specializing in the two lines of research provided above. I believe I must start establishing a very specific research plan, and eventually broaden these basic research lines into interdisciplinary and applied research in small ways. While I intend to conduct mostly basic research, I believe application is important to psychological research, and hope to draw links between basic and applied work as I mature as a researcher, especially important is to draw basic research toward applied aims in public policy, allowing my work to help others make better decisions in their best interest. Finally, I hope to use relationships that I’ve built in the past in the areas of information technology and business to facilitate additional application links. By Year 5 I hope to be spending much of my time on basic research, and also begin to establish applied research bridging my decision making research into other fields.