

Jennifer Sloane, PhD

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CAREER PROFILE

- Researcher and analyst with a background in cognitive psychology, specialized in decision-making and memory.
- Versatile mixed methods researcher proficient in leading both quantitative and qualitative projects with expertise in research design, data analysis, and statistics.
- Experience with human factors research and human-machine systems within the healthcare system, including supporting the development of implementation guides and dashboards.

EDUCATION

PhD in Cognitive Psychology	2022
<i>University of New South Wales, Sydney, Australia</i>	
Dissertation: The effects of interruptions on decision-making with applications in medicine	
Masters of Science in Experimental Psychology, 4.0 GPA	2017
<i>Syracuse University, Syracuse, NY</i>	
B.A. in Psychology, magna cum laude, 3.9 GPA	2014
<i>University of Maryland, College Park, MD</i>	

WORK AND RESEARCH EXPERIENCE

Health Services Research Postdoctoral Fellow	2022–Present
<i>Center for Innovations in Quality, Effectiveness and Safety, Houston, Texas</i>	

- Lead statistician on a stepped wedge study design exploring the effectiveness of electronic triggers.
- Used linear mixed-effects models in R and found that an electronic trigger intervention improved follow-up for some sites by up to 27%, resulting in lower risk of medical errors.
- Lead researcher and project manager on a study identifying diagnostically challenging medical conditions and utilizing electronic triggers and algorithms to improve patient outcomes.
- Lead researcher on a qualitative project to better understand how clinicians conceptualize confidence during diagnosis; conducted 20 virtual interviews, coded interview transcripts using Atlas.ti, and analyzed data using inductive content analysis.

Graduate Student	2018–2022
<i>University of New South Wales, Sydney Australia</i>	

- Designed and programmed (in Python and Javascript) 8 experiments exploring the effects of interruptions and time pressure on decision-making.
- Analyzed results in R and found strategies, such as feedback and “interruption lags”, can help to mitigate the negative impacts of interruptions.
- Applied concepts from dissertation work to the field of diagnosis, resulting in a [first-author publication](#).

Graduate Student	2015–2017
<i>Syracuse University</i>	

- Programmed a model of recognition memory in R with several hundreds of simulated participants to better understand how emotional words impact memory.
- Programmed 3 recognition memory tests in MATLAB and collected data on 120 participants.
- Analyzed data using bias and discriminability measures from Signal Detection Theory (a framework to analyze decision-making in the presence of uncertainty by separating signal from noise), linear regression models, linear mixed-effects models, and hierarchical diffusion models.

TEACHING EXPERIENCE

- Presented 8 workshops on “Introduction to R and Programming” to 35 employees at Center for Innovations in Quality, Effectiveness and Safety.
- Instructed and tutored over 400 university students in 5 different psychology and statistics courses.
- Developed a 15-hour cognitive science course for high school students, supplemented by online statistics tutorials and an interactive website.
- Designed and built the [R4Beginners](#) website to help individuals learn how to program in R and created [video tutorials](#) on using R for website design.

SELECTED PUBLICATIONS

- Khan, S., Cholaneril, R., **Sloane, J.**, Offner, A., Bradford, A., Matin, R., Shahid, U., & Singh, H. Supported by Sittig, D.F., Ramisetty, X.R. "Current State of Diagnostic Safety: Implications for Research, Practice, and Policy." Content last reviewed January 2024. Agency for Healthcare Research and Quality, Rockville, MD.
- **Sloane, J.**, Donkin, C., Newell, B. R., Singh, H., & Meyer, A. N. (2023). Managing Interruptions to Improve Diagnostic Decision-Making: Strategies and Recommended Research Agenda. *Journal of General Internal Medicine*, 1-6.
- **Sloane, J.**, Newell, B. R., & Liang, G., Donkin, C. (2022). The Mazing Race: Effects of interruptions and benefits of interruption lags in a novel maze-like decision-making paradigm. *Journal of Experimental Psychology: Applied*, 29(3), 654.
- Liang, G., **Sloane, J.F.**, Donkin, C., & Newell, B. R. (2022). Adapting to the algorithm: how accuracy comparisons promote the use of a decision aid. *Cognitive research: principles and implications*, 7(1), 1-21..
- [9 journal publications](#), 10 international presentations, and experience as a reviewer for 3 medical journals.

TECHNICAL SKILLS

- Programming languages: R (proficient). SQL, Python, JavaScript, MATLAB (familiar).
- Software: LaTeX, Overleaf, Visual Studio Code, Atlas.ti.

HONORS AND AWARDS

- Fellowship in Diagnostic Excellence (Society to Improve Diagnosis in Medicine).
- Scientia PhD Scholarship (University of New South Wales).
- Mark S. Harper Award for Excellence in Psychology (University of Maryland).
- Phi Beta Kappa.

INTERESTS AND HOBBIES

- CrossFit, cross stitch, and playing soccer.
- Traveling and watching the Baltimore Ravens!