

# Melbourne School of Psychological Sciences

# **Plain Language Statement**

PROJECT TITLE: Minimal models of sensory prediction

## Dr. Vanessa Ferdinand (Responsible Researcher)

Tel: +61 3 8344 2682; email: vanessa.ferdinand@unimelb.edu.au

A/Prof Sarah Marzen (co-researcher) email: smarzen@kecksci.claremont.edu A/Prof Andrew Perfors (co-researcher) email: andrew.perfors@unimelb.edu.au Jacob Kuek (research assistant) email: jacob.kuek@unimelb.edu.au

#### Introduction

The purpose of this project is to understand the limits of human prediction capabilities. The data will be used to develop better mathematical models of how prediction works.

### What will I be asked to do?

First we will ask you a few demographic questions and check that the sound on your device is working. Then you will take the experiment, where you will use two buttons to learn a sequence. If you hear a click, this means your answer was correct. If you hear nothing, this means your answer was wrong. A dial will show you how well you are doing. Please pay attention and try to improve your score over time.

#### What are the risks?

Risks are minimal. The experiment takes 20 minutes to complete, but you may exit the experiment at any time. It is possible that you will experience some visual fatigue or boredom. To help prevent this, please take a break whenever you feel like you need one.

#### What are the benefits?

Although a lot is known about how humans predict sequences of events, little is known about how close humans can get to optimal prediction. The purpose of this experiment is to understand the limits of human prediction capabilities for several types of sequences that we already have the optimal solutions for. By taking this experiment, you will help us understand what types of prediction humans are better at, and what type of prediction that machines are better at. This will help researchers develop better ways for humans and computers to interact.

### How would my confidentiality be protected?

Your data will be stored in a completely anonymized format. You will be asked to contribute some demographic details, but these will be stored separately from your data. Data used in this project may also be used in any future research.

#### What if I want to withdraw from the Research?

Participation in this research is completely voluntary. You are free to withdraw at any time without penalty. Please email the Responsible Researcher if you would like us to remove your data from our analyses.

# Where can I get further information?

This research project has been approved by the Human Research Ethics Committee of The University of Melbourne. If you have any concerns or complaints about the conduct of this research project, which you do not wish to discuss with the research team, you should contact the Manager, Human Research Ethics, Research Ethics and Integrity, University of Melbourne, VIC 3010. Tel: +61 3 8344 2073 or Email: humanethics-complaints@unimelb.edu.au. All complaints will be treated confidentially. In any correspondence please provide the name of the research team or the name or ethics ID number of the research project. Funding is provided by the United States Air Force Office of Scientific Research award number FA9550-19-1-0411.

## How do I agree to participate?

If you wish to participate, please read the consent form and click on "begin experiment".

HREC Number: 1954586 Version Number: 2 Date: 30/03/2021