**Debriefing Form: Rotated object recognition masked on dual tasking.**

Thank you for agreeing to participate in this study! The general purpose of this research is to understand the cues of object recognition, concretely focused on the aspect of rotation.

*How was this tested?*

In this study, you were asked to do a mechanical activity known as the UNRAVEL task and then been asked to recognize some pictures that you had to memorize before from the ones presented. These images could be rotated 0, 90 or 180º. We will focus on the accuracy and false alarm rates of the different situations.

*Hypothesis and main questions:*

Despite previous research not indicating much importance on rotation as a factor to recognize visual objects, it is true however that this research has been focused on smaller angles. It could be possible that at higher degrees of rotation this will be a more relevant factor. Thus, it is expected to be a lower accuracy rate and perhaps a higher false alarm rate the higher the rotation is, especially on a situation where there are not many more cues, as the images used are two-dimensional and monochromatic.

If so, then we would have the following questions: what are the mechanisms that would allow us to recognize an object when it is rotated? How can we implement them as computational models? If the hypothesis is wrong we would still have similar questions: If rotation is not important on object recognition, what would be the cues then when recognizing objects that provide relatively little information? How can we build a model or an algorithm then aimed to recognize rotated objects at the same speed as non-rotated objects?

*Why is this important to study?*

Being able to recognize efficiently and accurately objects would be a major advancement within artificial intelligence. The development of more complex computational models is fueling a new revolution in the vast majority of industries, especially if these are able to have a human-like perception. Achieving high artificial intelligence, or even super-artificial intelligence (i.e. AIs more intelligent than humans), will be a point of no-return for humanity. If done wisely, this will allow unfounded economic prosperity and perhaps unprecedented wellbeing in society.